Deliverable 2.3

Transparency: Public information harmonization

EC DGNEAR - GRANT CONTRACT: ENI/2018/397-494

"Med-TSO—Mediterranean Project II"

Activity 2.3 "Transparency: Public information harmonization"

Med-TSO is supported by the European Union.
This publication was produced with the financial support of the European Union. Its contents are the sole responsibility of Med-TSO and do not necessarily reflect the views of the European Union.

Table of contents:

Table of figures:

1 Executive summary

The present report constitutes the final deliverable of Subtask 2.3 of the Mediterranean Project II. The main goal is to develop a proposal of common criteria to define the guidelines and requirements for the harmonization of public transparency information in the Mediterranean Region. For this aim a survey, which is described in detail in chapter 3, has been drafted to find out the current situation in each country and the desired situation from each TSO point of view.

As a starting point, 34 issues have been analyzed, divided in 5 areas: basic information of the power system, power system performance, market information, prospective information and historical data. The results of the survey, that has been completed by 15 TSOs are presented in chapters 4 and 5 and summarized below.

Issue	Transparency of the Issue	Main way to disclose this information	Priority of the Issue	Where it should be disclosed
Basic information of the power system				
Applicable regulation (national)	8,2	TSO	7,4	TSO
Applicable regulation (regional)	5,0	Multi-TSO	7,4	Med-TSO + TSO/Med-TSO
Transmission system description	7,6	TSO	7,1	Med-TSO + TSO
Transmission grid map	7,4	TSO	7,4	Med-TSO + TSO
Power System Performance				
Generation by technology (real time)	7,0	Multi-TSO	7,5	Med-TSO + TSO
Generation forecast (day ahead)	6,8	Multi-TSO	7,9	Med-TSO + TSO/Med-TSO
Generation forecast for wind and solar	6,2	Multi-TSO	8,4	Med-TSO + TSO
Installed capacity by technology	8,6	Multi-TSO	8,6	Med-TSO + TSO
Filling Rate of Water Reservoirs and Hydro Storage	5,2	Multi-TSO	4,4	Med-TSO + TSO
Load demand (real time)	6,8	Multi-TSO	7,1	Med-TSO + TSO
Load demand forecasts (day, month and year ahead)	7,4	Multi-TSO	8,0	Med-TSO + TSO
Demand side management mechanism (capacity, activation rules)	5,8	TSO	5,5	Med-TSO + TSO
Forecast Margin Load/Generation	6,4	Report/Multi-TSO	6,2	Med-TSO + TSO
Capacity and use of generation units and transmission grid	6,4	Report/Multi-TSO	7,4	TSO
Scheduled outages (transmission grid and generation units)	6,8	Report/Multi-TSO	7,2	TSO
Unplanned outages (transmission grid and generation units	6,6	Multi-TSO	6,6	TSO
Constraints on Generation usage (must-run, limitations, environmental constraint, fuel constraint)	5,4	TSO	5,2	TSO
Information About Markets				
Daily and intraday markets	5,6	Multi-TSO	7,8	Med-TSO + TSO
Use of the interconnection (programs)	6,6	Multi-TSO	7,7	Med-TSO + TSO
Use of the interconnection (real time measures)	5,8	Multi-TSO	7,3	Med-TSO + TSO
Forecasted capacity – day ahead, month ahead and year ahead	6,6	Multi-TSO	7,7	Med-TSO + TSO
Information on international exchanges mechanism (i.e. auction)	6,6	Multi-TSO	7,4	Med-TSO + TSO
Congestion Income (allocation mechanisms or tolls)	5,4	Report/Multi-TSO	6,7	Med-TSO + TSO
Information on balancing reserves (volumes, prices, exchanges)	6,0	Multi-TSO	6,4	Med-TSO + TSO
Information on balancing energies (volumes, prices, imbalances, exchanges)	5,4	Multi-TSO	6,0	Med-TSO + TSO
Countertrading and/or re-dispatching (energy and cost)	4,8	Multi-TSO	5,8	Med-TSO + TSO
Prospective Information				
Access and connection information (new generation by technology)	5,4	Report	7,8	Med-TSO + TSO/TSO
Access and connection information (new generation by node)	5,4	Report	7,7	TSO
Information on congested nodes	4,5	Report	7,4	Med-TSO + TSO/TSO
Planning information: National & International Development Plans	6,9	Report	7,7	Med-TSO + TSO
Historical Data and Statistic Information				
Load data	8,2	Multi-TSO	7,8	Med-TSO + TSO
Generation data	8,2	Multi-TSO	7,7	Med-TSO + TSO
Market prices	7,8	Multi-TSO	7,4	Med-TSO + TSO
Interconnection information (capacity, auctions ...)	7,7	Multi-TSO	7,7	Med-TSO + TSO

Figure 1. Summary of the survey results

Considering the previous results and the availability of the data in the different power systems, which is deatiled in Annex C, the final proposal, which is explained in chapter 6, divides the 34 issues into 3 diferent categories:

A. Proposal of issues to be published in Med-TSO website.
B. Proposal of issues to be transparent in the Mediterranean region in each TSO webpage.
C. Issues not selected as to be transparent in the Mediterranean region at this stage.

From the 34 issues, 13 are included in category A (separated in 3 different time horizons as presented below); and 9 more in category B.

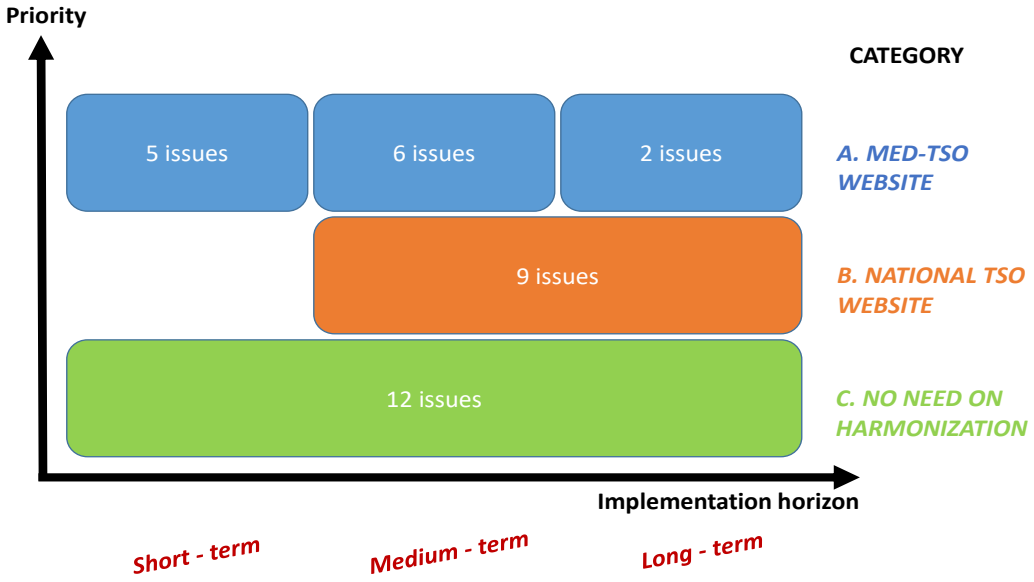


Figure 2. Final proposal of issues to be transparent in the Mediterranean region

The final proposal of the 13 issues to be published in Med-TSO website is the following:

1. In the **short-term** (first update during 2020 with data from 2019) with yearly updates:
    - Transmission grid map of the national power system, which is already shared.
    - Data of installed capacity by technology in the national power system on the 31st December of the previous year to be provided at the beginning of each year.
    - Historial data on load demand to be provided at the beginning of each year with the annual and monthly demand in the national power system.
    - Historical data on generation to be provided at the beginning of each year with the annual and monthly generation data by technology in the national power system.
    - Historical data on international exchanges (total net exchanges as the sum of imports and exports) in each interconnection (border), not in each interconnector (line) to be provided at the beginning of each year with the annual and monthly exchanges.

2. In the **medium-term**. Increase the frequency of providing updates for the 5 issues mentioned above from yearly to monthly. In addition the followiing issues, for which IT development is required (or at least is recommended for efficiency purposes) and in some cases availability of data needs to be addressed with some TSOs, should also be published in Med-TSO website:

- Real time generation data by technology. Time stamp should be agreed.
- Real time load demand data. Time stamp should be agred.
- Hourly total generation forecast for the day D to be provided the day before (D-1).
- Hourly load demand forecast for the day D to be provided the day before (D-1).
- Hourly forecast for wind and solar for the day D to be provided the day before (D-1).
- Hourly capacity forecast on each interconnection to be provided in 3 timeframes: yearly, monthly and daily.

3. In the **long term,** as market prices are not available nowadays in many power systems, the following issues should be published in Med-TSO website:
   - Day-ahead and intraday hour market prices. To be provided each hour H for the hour before (H-1).
   - Statistical data from day-ahead and intraday hourly market prices. To be provided each month M with the data from the month before (M-1).

2 Scope and purpose

The purpose of this report is to develop a proposal of minimum set of data to be published in national TSO websites, together with a basic set in Med-TSO website within Mediterranean power systems. This proposal has the objective to become a legal obligation in the future, but nowadays is only a proactive activity performed by TSOs in the Mediterranean in order to increase transparency of the different power systems.

The report constitutes Deliverable 2.3, main outcome of Activity 2.3 of the so-called Mediterranean Project II (MP II), an ongoing two-year project performed by Med-TSO and supported by the European Commission through the signature of a Grant Contract.

The work has been developed by Med-TSO Technical Committee 2 on Regulation and Institutions (TC2) with the direct involvement of participating TSOs.

This proposal is an input for Activity 5.1 to be developed also within MP II and which main objective is the design and implementation of a section in Med-TSO website to gather information in general, this report being the proposal of transparency information.

3 Background and methodology

Between 2015 and 2018 Med-TSO developed Mediterranean Project I, a 3-year project supported also by the European Commission. One of the tasks included in this project was the development of a proposal of Common Target Regulatory Framework in the Mediterranean. One of the technical issues included in the final proposal was related with transparency, as follows:

An external rule should include the information that TSOs (and other market players) should make be publically available for sake of transparency, regarding both the electricity markets in general and specific information about the international interconnections. Information could be divided in three different levels:

- *Minimum information required: information related with capacity and use of generation, consumption and transmission units, including the scheduled outages. In addition, total demand and generation figures should also be publically available.*
- *Regional information: at a regional level should be made public (in the same platform if possible) the use of the interconnections (in terms of programs, real measures and also percentage of utilization);*

daily and intraday market prices; information about the international exchanges mechanism; and economic information.

- *Additional information: on a long term stage other data could also be included such as countertrading programs used.*

As a consequence of this outcome Med-TSO has continued working in order to define the concrete set of issues that could be published. In order to define the guidelines and requirements for the harmonization of public transparency information in the Mediterranean Region, a survey has been drafted by a dedicated Task Force (composed by members of IPTO, STEG, RTE and REE).

The survey (template in Annex A) contains 7 questions: 2 general questions (A and B) related to the current transparency regulation in each power system and 5 questions entering into the detail of the level of transparency of 34 specific issues which have been divided in 5 main chapters as follows:

1. Basic information of each power system (4 issues).
2. Power system performance related to operation aspects (13 issues).
3. Information about markets including interconnection management and available capacity (9 issues).
4. Prospective information (4 issues).
5. Historical data and statistic information (4 issues).

For the 34 issues, 2 main aspects have been analyzed:

- Current situation in each power system:
  - Question C: Level of transparency with four possible answers:
    - Full transparency: Available to the public in general. (*FULL*)
    - Intermediate transparency: Available for stakeholders. (*INTER*)
    - Low transparency: Available only to Regulators or Administration. (*LOW*)
    - No transparency: Not available. (NO*)*
  - Question D: Transparency channel with three possible answers:
    - Periodic reports (*REPORT*), considering that in the near future every report would be probably also available in webpage environment.
    - TSO webpage. (*TSO)*
    - Multilateral TSO webpage (i.e.: ENTSO-E, COMELEC, IESOE …). (*MULTI-TSO*)

    In case that the answer given included more than one channel, the analysis performed has included the most complete channel (i.e.: for a "TSO+REPORT" answer the analysis has selected "TSO").

- Desired future situation according to each TSO point of view:
  - Question E: Need to be transparent with 2 possible answers: YES/NO.
  - Question F: Priority level with 3 possible answers: HIGH/MEDIUM/LOW.
  - Question G: Transparency level with 2 possible answers:
    - Dedicated section in Med-TSO webpage, including potential regional reports that could be elaborated by Med-TSO. (*MED-TSO*)
    - Each national TSO webpage, including potential national reports that could be elaborated by each TSO. (*TSO*)

A graphical presentation is included in figure 3.

		Current situation		Desired future situation		
		C	D	E	F	G
Chapter 1	Issue 1.1					
	Issue 1.2					
	Issue 1.3					
	Issue 1.4					

Chapter 2	Issue 2.1					
	Issue 2.2					
	(...)					

Figure 3. Survey structure

The survey was completed by 15 out of 19 TSOs as shown in figure 4.

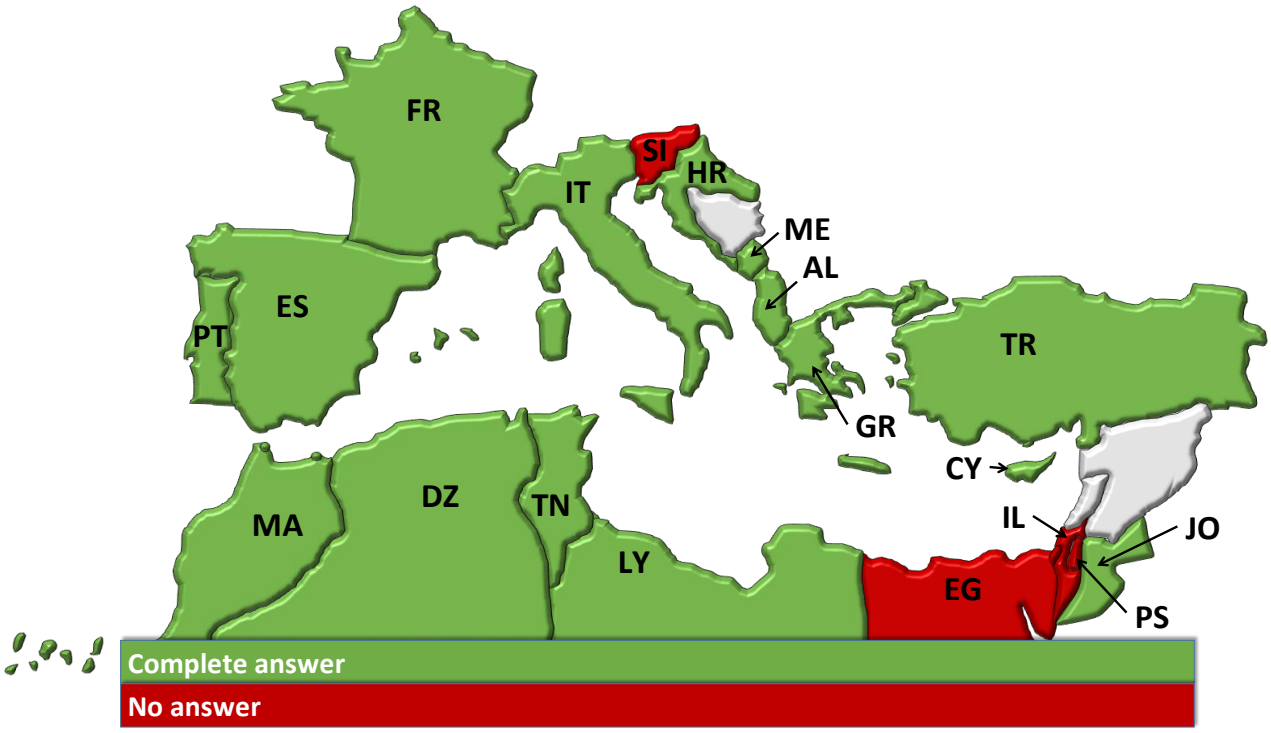


Figure 4. Map of the countries that have completed Med-TSO survey

With the results of the survey (presented in chapters 4 and 5) a proposal of issues to be published in Med-TSO website and in each national TSO website has been developed (presented in chapter 6).

4 Current situation on Transparency in Mediterranean power systems

In this chapter the results of the abovementioned survey regarding the current situation on transparency in each power system in the Mediterranean region are presented.

4.1 General questions

4.1.1 Restriction to disclose information

Nearly all TSOs (12 out of 15) have declared that there is some type of restriction to disclose information for their power system except NEPCO and TERNA who declared that their system doesn't submit to any restriction.

According to the survey the restrictions to disclose information are essentially related to commercial aspects or technical aspects. In many cases information is made public in an aggregated way. More detailed information can be found in Annex B with the answers received from each TSO.

4.1.2 Disclosure of information imposed by law

In almost all power systems (12 out of 15) the disclosure of information is imposed by law (in Tunisia by an internal TSO instruction). Only GECOL and ONEE inform that there is no specific law. More detailed information can be found in Annex B with the answers received from each TSO.

4.2 Basic information of the power system

4.2.1 Applicable regulation (national)

The transparency level is pretty high, with an average of 8,2 out of 9. Only 3 countries, namely Libya, Tunisia and Turkey do not have full transparency (low for Libya and intermediate for Tunisia and Morocco.

Most TSOs (12 out of 15) make this information public mainly via a TSO or a multilateral-TSO webpage, while Libya, Tunisa and Turkey do it through a report. In the case of Algeria this information is published by national institution.

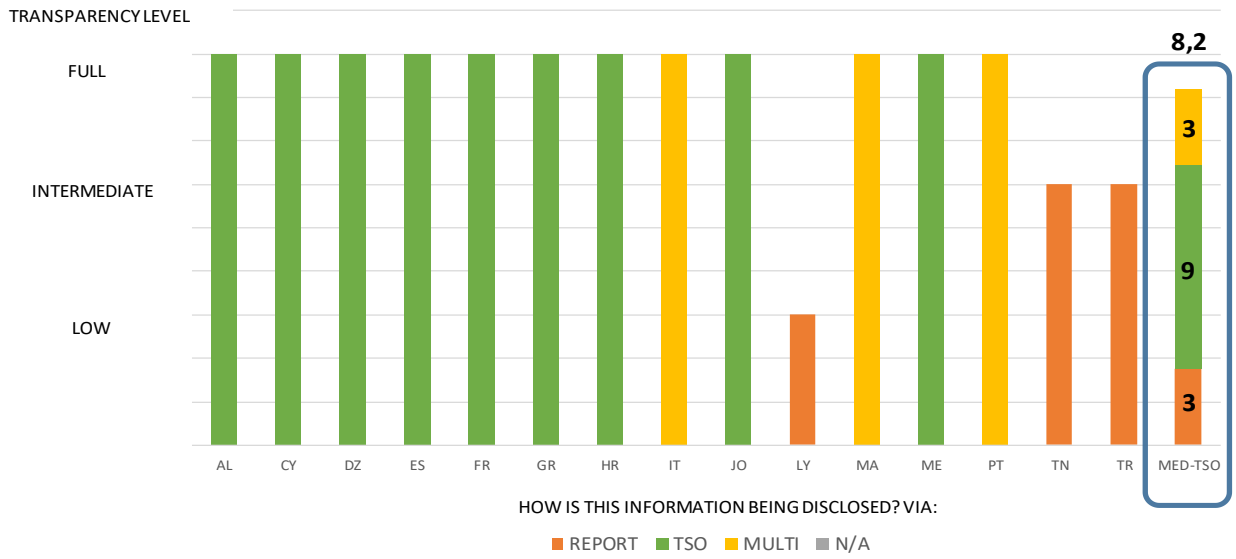


Figure 5. Graph of the transparency on the National Regulation

4.2.2 Applicable regulation (regional, if any)

The average level of transparency is low (5 out of 9). Mainly due to the fact that 7 TSOs do not have regional regulation (Algeria, Jordan, Libya, Montenegro, Morocco Tunisia and Turkey). In the case of Morocco, although there are some bilateral agreements, there is no binding regulation on a regional level.

From the 9 TSOs with regional regulation, all have full level of transparency and make this information availbale through a TSO or a multilateral-TSO webpage.

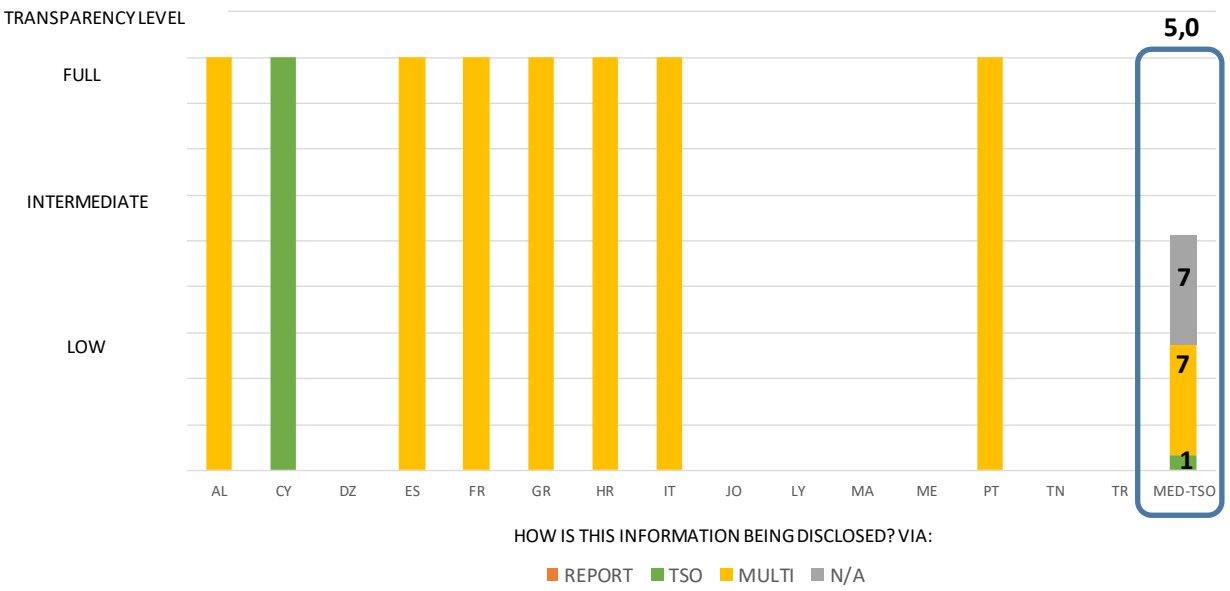


Figure 6. Graph of the transparency on the Regional Regulation

4.2.3 Transmission system description

The average level of transparency is high (7,6 out of 9). Only 5 TSOs (Cyprus, Algeria, Libya, Tunisia and Turkey) do not have full transparency on this issue.

All the TSOs disclose this information either in the TSO webpage (9) or via report (6).

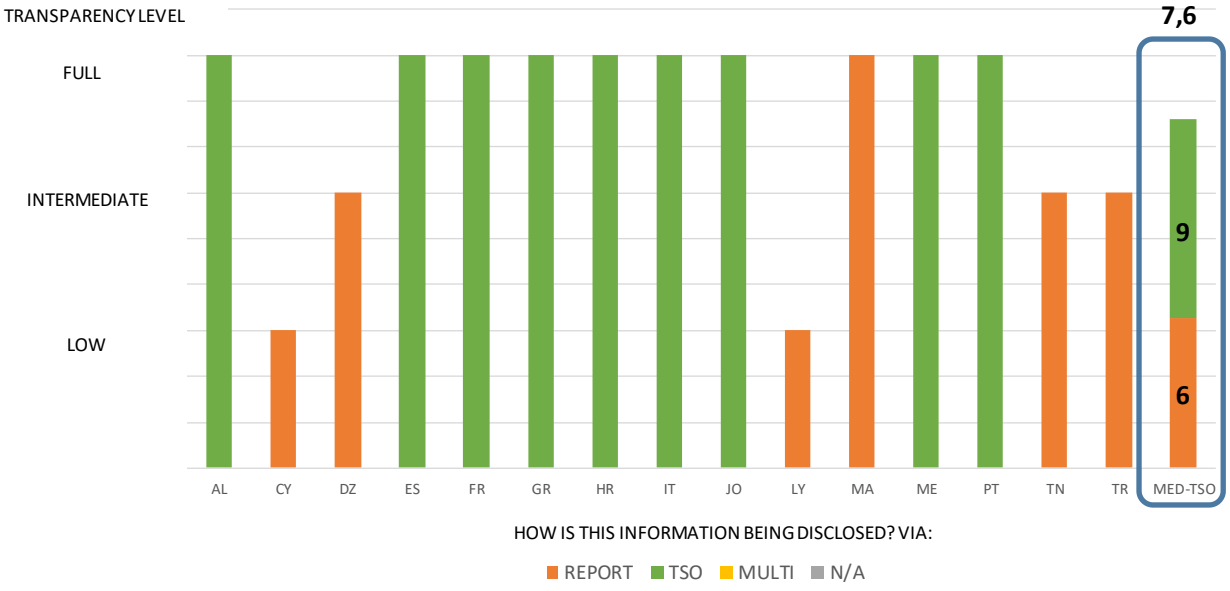


Figure 7. Graph of the transparency of the Transmission System

4.2.4 Transmission grid map

The average level of transparency is high (7,4 out of 9). Only 5 TSOs (Cyprus, Algeria, Libya, Tunisia and Turkey) do not have full transparency on this issue.

Information disclosure is quite heterogeneous (4 via report, 8 in the TSO webpage and 3 in a multilateral-TSO webpage).

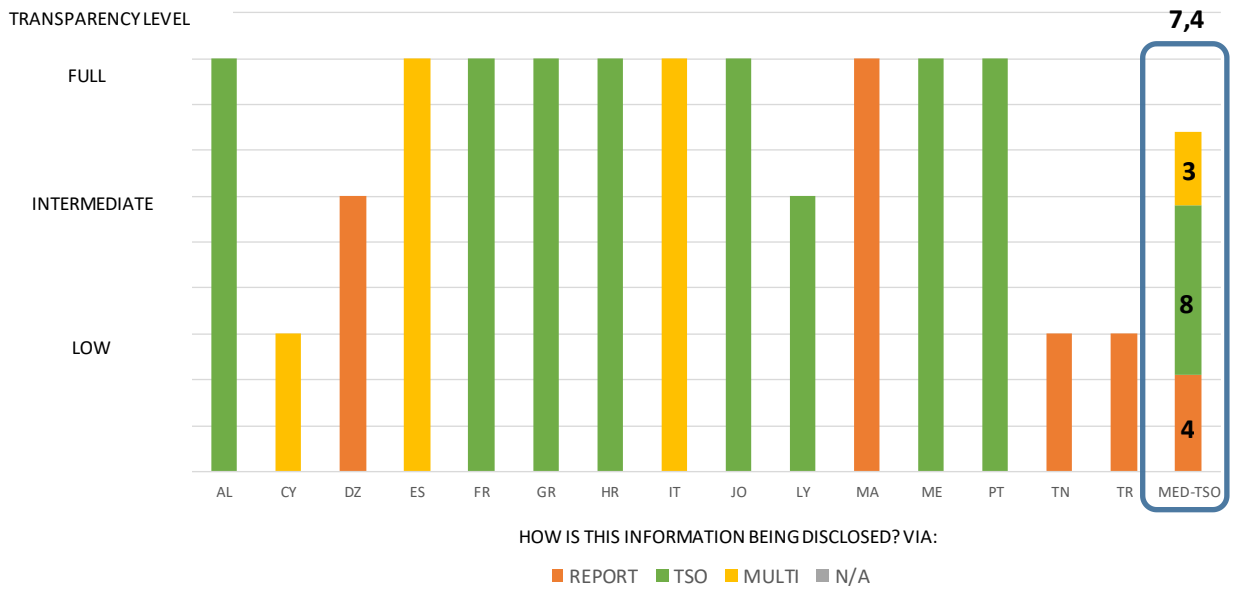


Figure 8. Graph of the transparency on the Transmission Grid Map

4.3 Power system performance (operation aspects)

4.3.1 Generation by technology (real time)

For this question, 12 out of the 15 TSOs have declared that they make this information public. The average level of transparency is high (7,0 out of 9). All of them, except ONEE, have full transparency. In general the information is disclosed using either the TSO webpage or a multirateral-TSO webpage. In the case of Turkey this information is published by EPIAS.

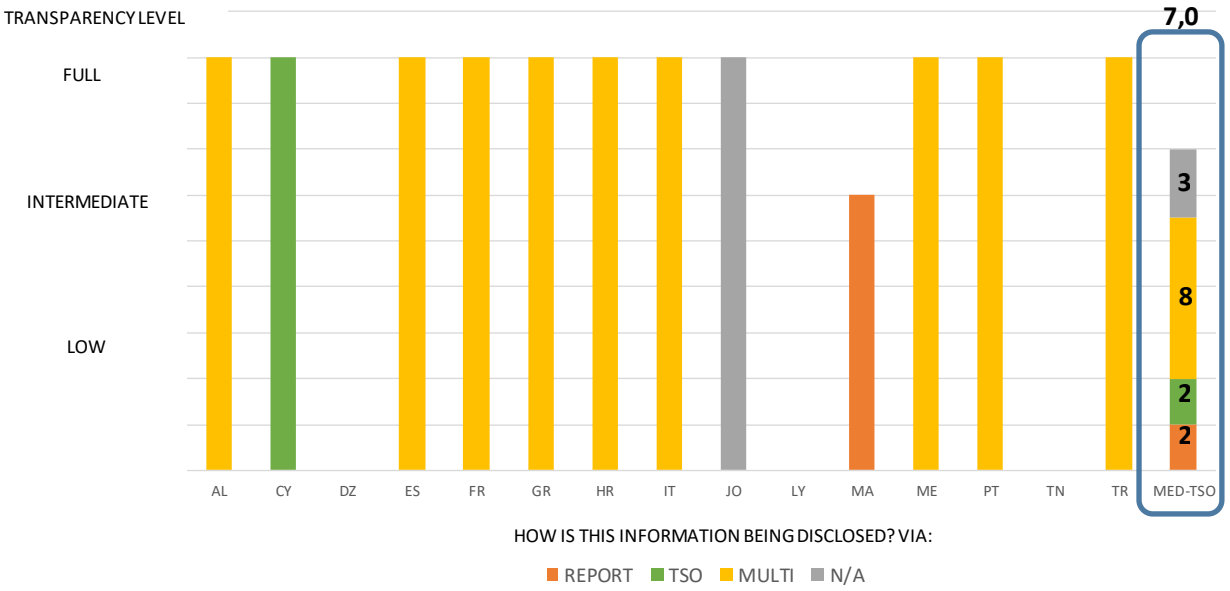


Figure 9. Graph of the transparency on the Transmission Grid Map

4.3.2 Generation forecast (day ahead)

Almost all the TSOs have some level of transparency except Turkey, but in 4 countries the information is only available for regulators and administration (Jordan, Libya, Morocco and Tunisia). The average level of transparency is intermediate (6,8 out of 9). Information disclosure is quite heterogeneous (4 via report, 3 in the TSO webpage and 7 in a multilateral-TSO webpage).

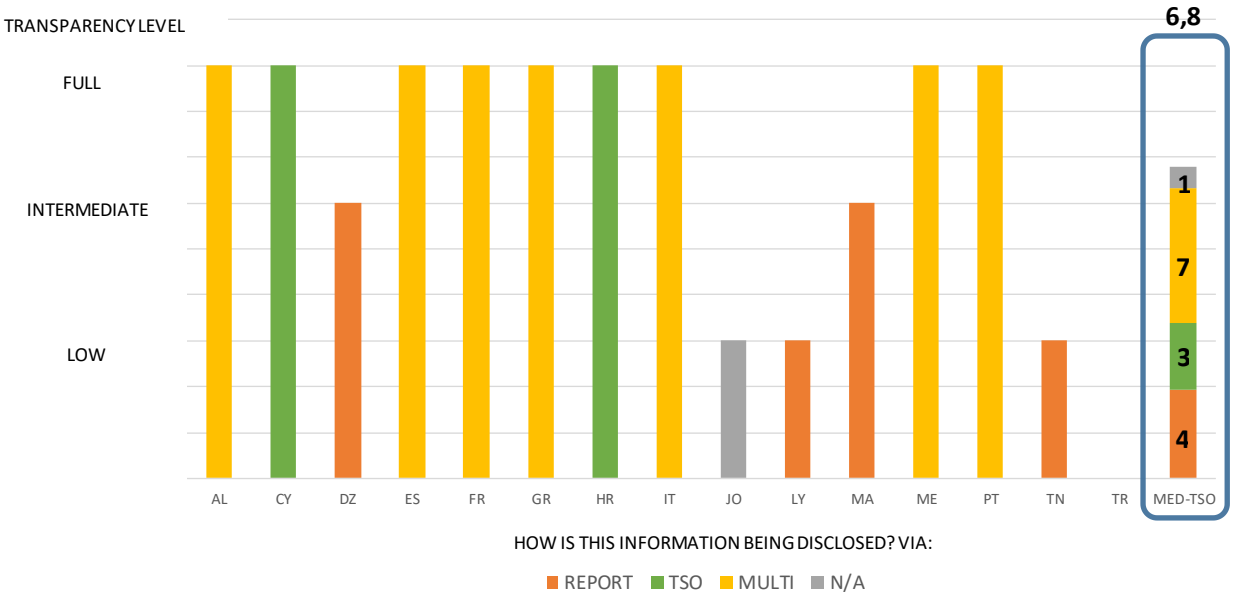


Figure 10. Graph of the transparency on the Generation Forecast

4.3.3 Generation forecast for wind and solar

12 out of 15 TSOs have declared that they disclose this information (except Algeria, Libya and Turkey). Only 4 do not have full transparency (namely Cyprus, Jordan, Morocco and Tunisia) and disclose the information via a report. The rest of TSOs have full transparency and disclose this information either via a TSO or a Multilateral-TSO webpage. The average level of transparency is intermediate (6,2 out of 9).

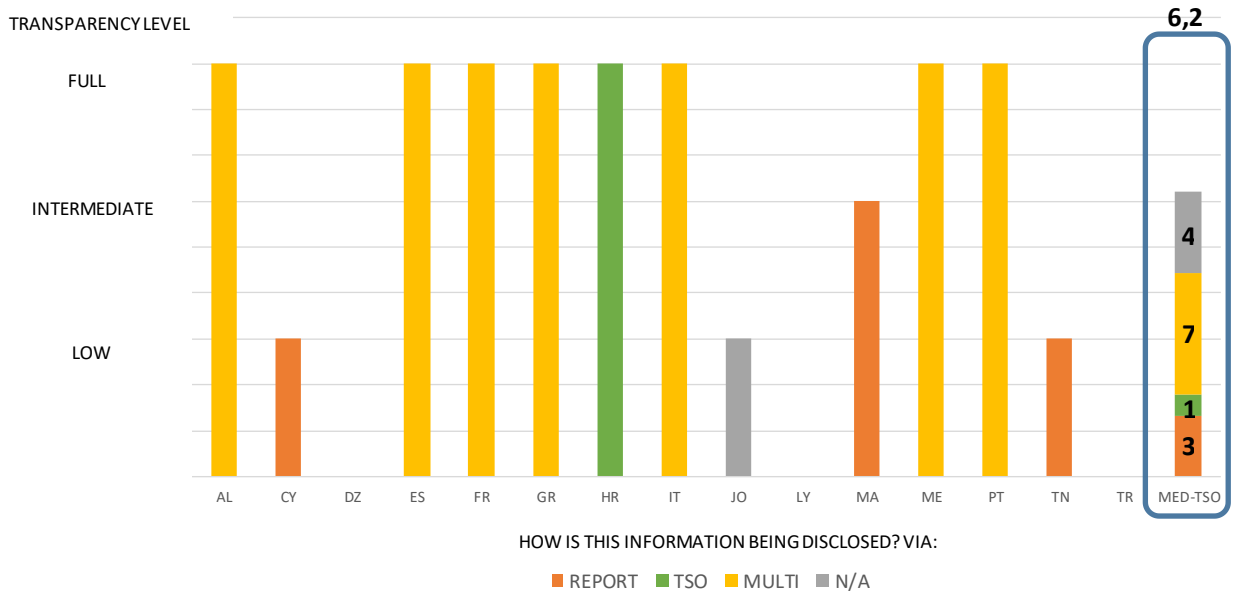


Figure 11. Graph of the transparency on the Generation Forecast for Wind and Solar

4.3.4 Installed capacity by technology

All the TSOs make this information public, with Algeria being the only one that does not have full transparency for this information, so the average level of transparency is rather high (8,6 out of 9).

The vast majority of TSOs disclose this information using the TSO webpage or a Multilateral-TSO webpage (only Algeria, Libya and Tunisia use reports).

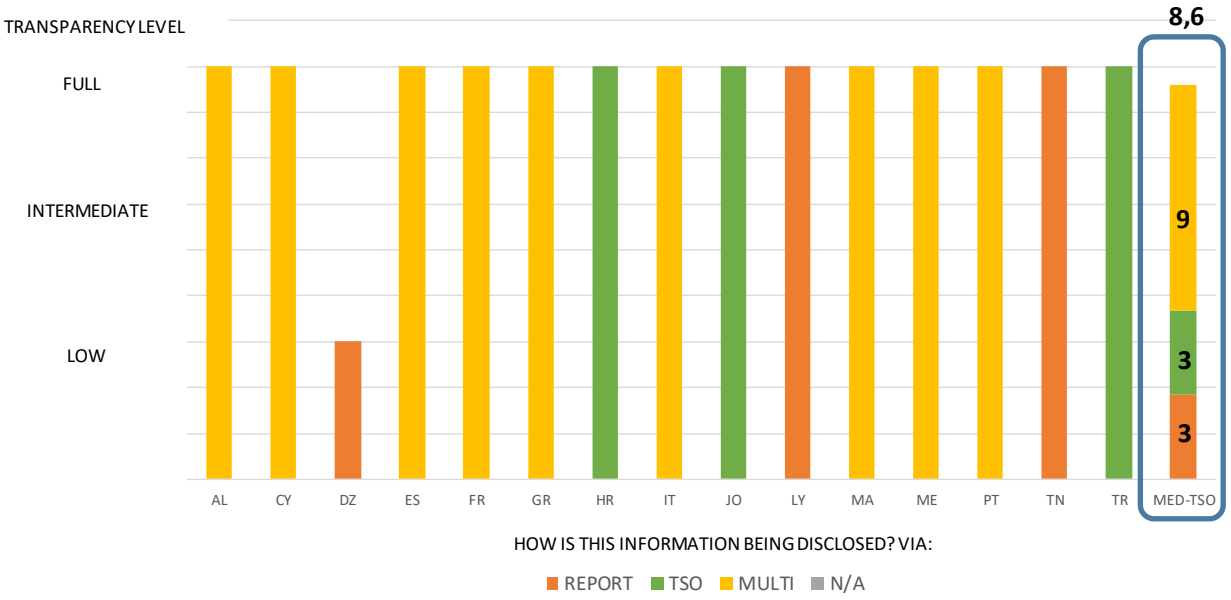


Figure 12. Graph of the transparency on the Installed Capacity by Technology

4.3.5 Filling Rate of Water Reservoirs and Hydro Storage

The average level of transparency is quite low (5,2 out of 9). Only Jordan, Libya and Cyprus (with no Water Reservoirs or Hydro Storage) do not publish this information.

Information disclosure is quite heterogeneous (3 via report, 3 in the TSO webpage and 6 in a multilateral-TSO webpage).

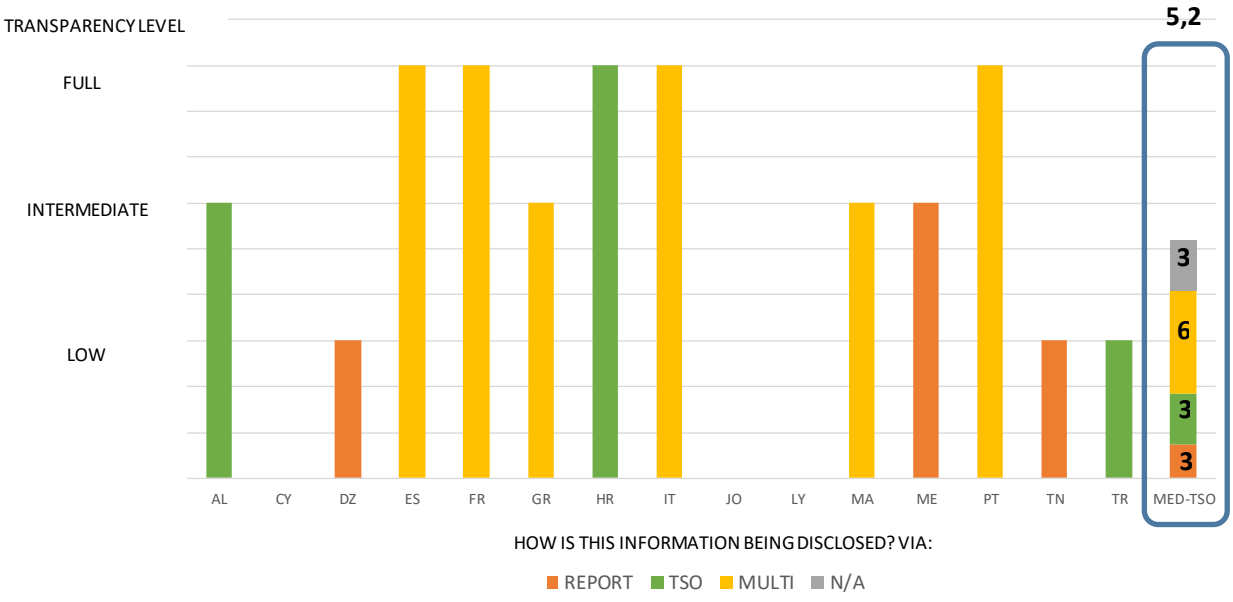


Figure 13. Graph of the transparency on the Filling Rate of Water Reservoirs and Hydro Storage

4.3.6 Load demand (real time)

Only Tunisia and Algeria do not disclose this information, so the average level of transparency is intermediate (6,8 out of 9). In general the information is published via TSO or multilateral-TSO webpage, except in Libya and Morocco that have low transparency and publish this information in a report. In the case of Turkey this information is published by EPIAS.

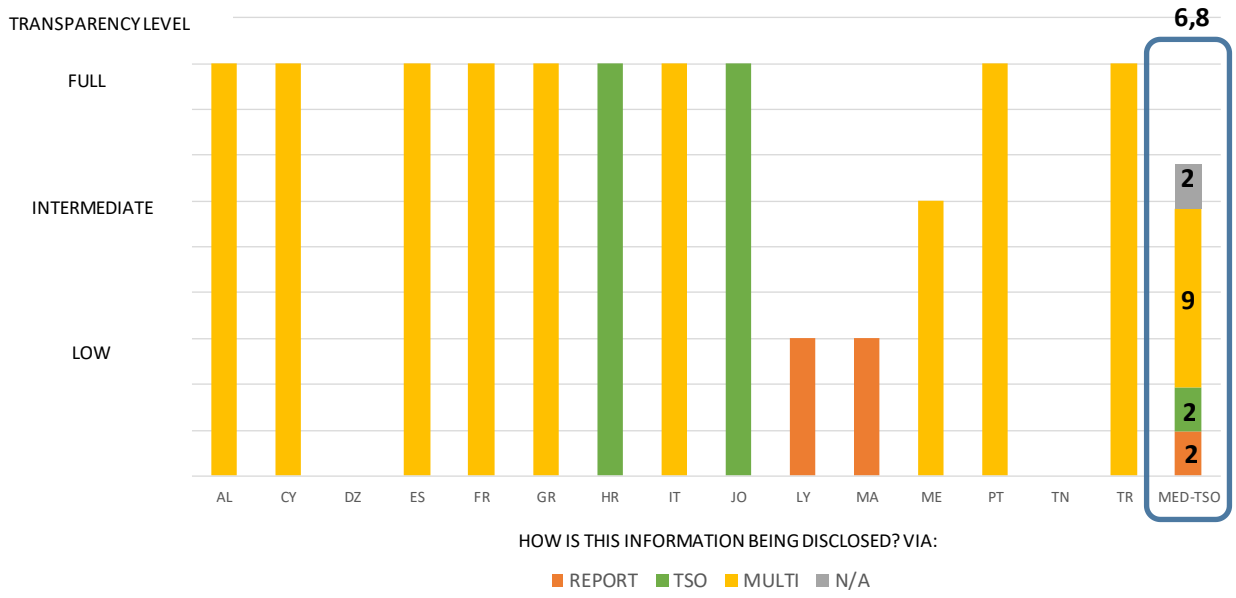


Figure 14. Graph of the transparency on the Load Demand

4.3.7 Load demand forecasts (day, month and year ahead)

All the TSOs publish this information via TSO or multilateral-TSO webpage, but in Algeria, Jordan, Libya and Tunisia the level of transparency is not full and the information is disclosed with a report. The average level of transparency is high (7,4 out of 9). In the case of Turkey this information is published by EPIAS.

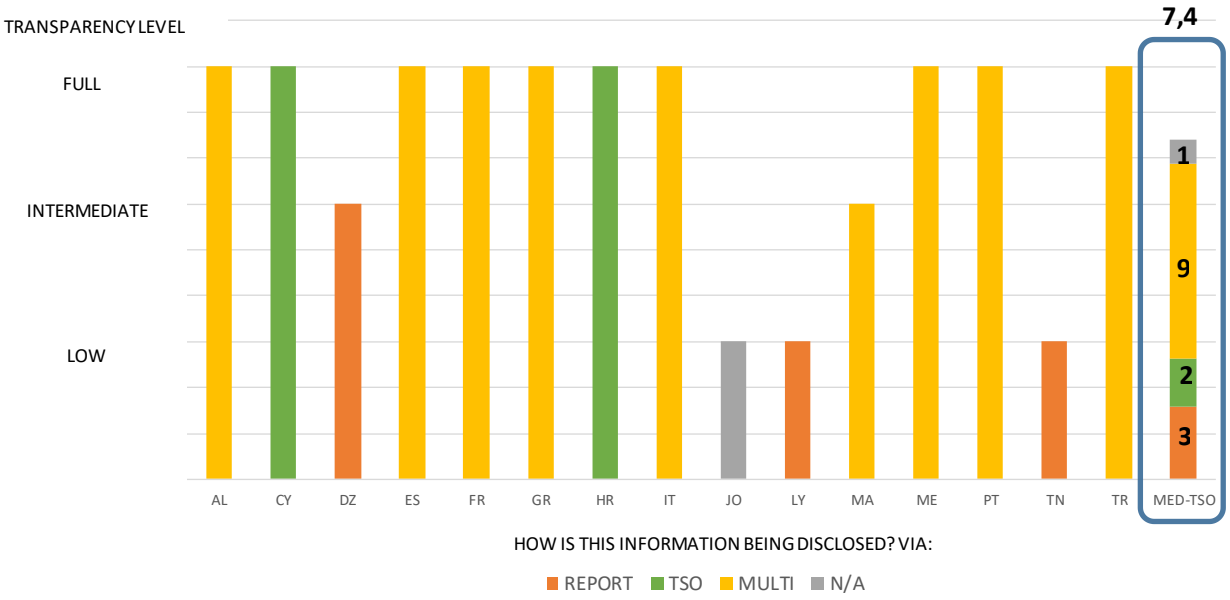


Figure 15. Graph of the transparency on the Load Demand Forecasts

4.3.8 Demand side management mechanism (capacity, activation rules)

Only 11 out of the 15 TSOs disclose this information, using mainly a report or a TSO webpage. The average level of transparency is intermediate (5,8 out of 9).

Figure 16 Graph of the transparency on the Demand Side Management Mechanism

4.3.9 Forecast Margin Load/Generation

13 out of the 15 TSOs make available this information. The average level of transparency is intermediate (6,4 out of 9).

Figure 17. Graph of the transparency on the Forecast Margin Load/Generation

4.3.10 Capacity and use of generation units and transmission grid

All the TSOs disclose this information but only 7 have full transparency. The average level of transparency is intermediate (6,4 out of 9). In the case of Croatia, the information published is only for the transmission grid, not for the generation units; while in the case of France the use of the transmission grid is not published.

In general, also TSOs with low transparency disclose the information using a report. The rest have full transparency and make the information public using a TSO or a multilateral-TSO webpage, except Croatia and Greece with intermediate transparency.

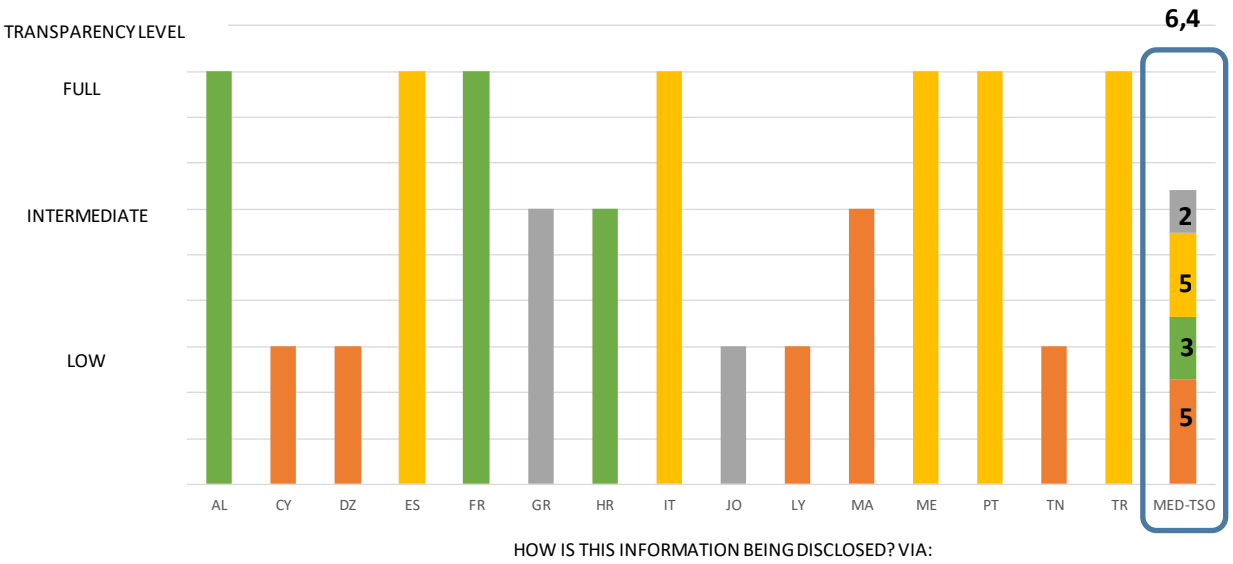


Figure 18. Graph of the transparency on the Capacity and Use of Generation Units and Transmission Grid

4.3.11 Scheduled outages (transmission grid and generation units)

All the TSOs disclose this information but only 7 have full transparency. The average level of transparency is intermediate (6,8 out of 9). In the case of France the information is only for the transmission lines impacting exchange capacity; and in the case of Croatia the information is only for the transmission grid, not for the generation units; while in the case of Spain the information is published without disclosing the name and location of the transmission grid.

Information disclosure is quite heterogeneous (4 via report, 5 in the TSO webpage and 5 in a multilateral-TSO webpage).

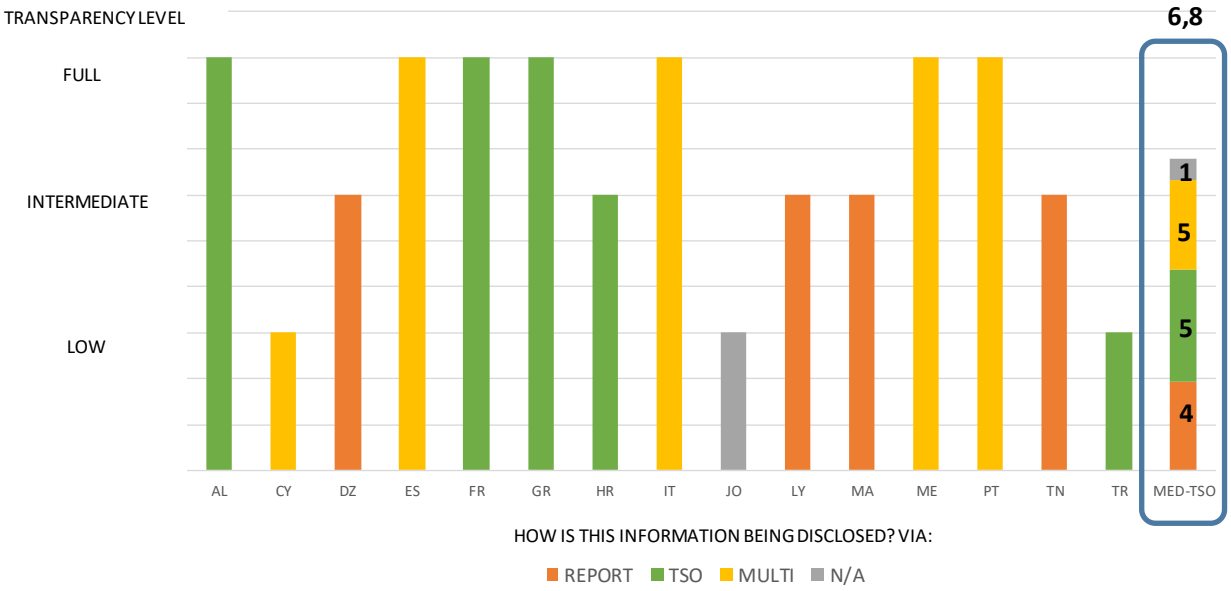


Figure 19. Graph of the transparency on the Scheduled Outages

4.3.12 Unplanned outages (transmission grid and generation units)

All the TSOs disclose this information but only 7 have full transparency. The average level of transparency is intermediate (6,6 out of 9). In the case of France the information is only for the transmission lines impacting exchange capacity; and in the case of Croatia the information is only for the transmission grid, not for the generation units; while in the case of Spain the information is published without disclosing the name and location of the transmission grid.

Information disclosure is quite heterogeneous (4 via report, 4 in the TSO webpage and 6 in a multilateral-TSO webpage).

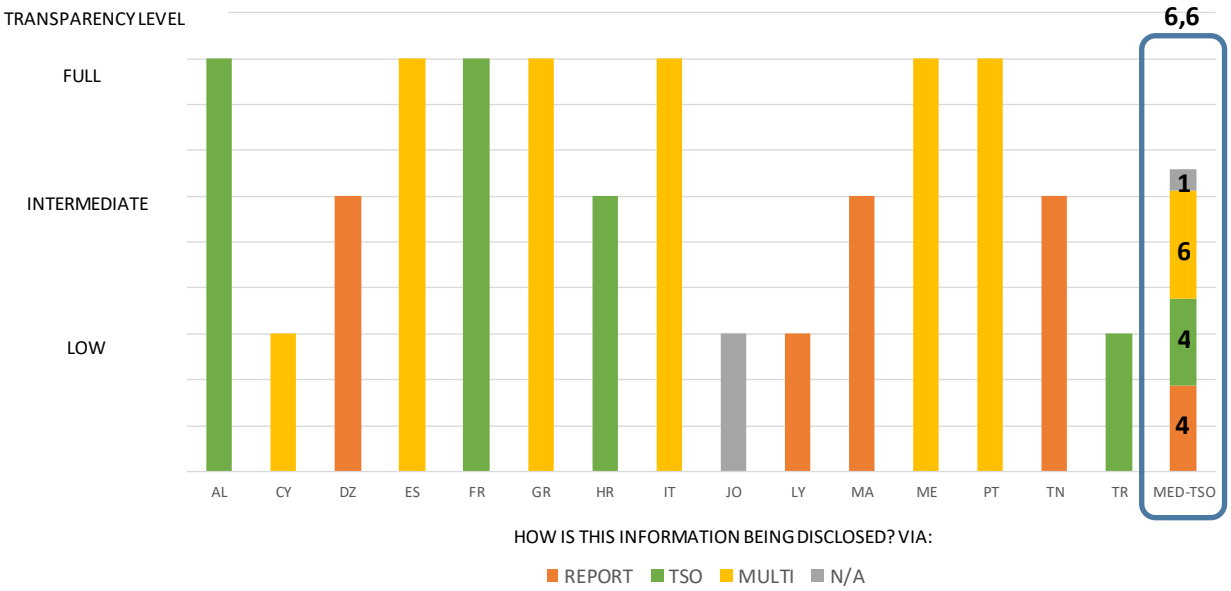


Figure 20. Graph of the transparency on the Unplanned Outages

4.3.13 Constraints on Generation usage (must-run, limitations, environmental constraint, fuel constraint)

All the TSOs, except HOPS, make available this information; 5 of them using a report and the rest using the TSO webpage, except TSOC that uses also a multilateral-TSO webpage. For the case of France and Albania, not have all constraints on generation usage are available. The average level of transparency is low (5,4 out of 9).

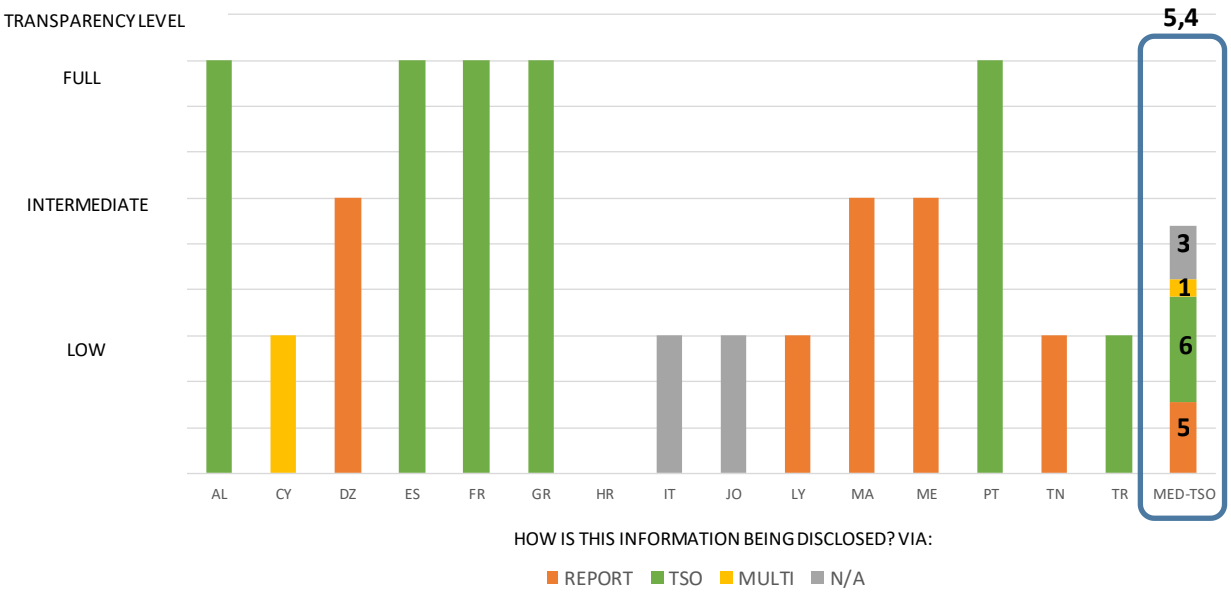


Figure 21. Graph of the transparency on the Constraints on the Generation Usage

4.4 Information about markets (including interconnection management and available capacity)

4.4.1 Daily and intraday markets

Only 10 out of the 15 TSOs disclose this information. The average level of transparency is intermediate (5,6 out of 9)

In all cases the information is disclosed using a TSO or a multilateral-TSO webpage and the level of transparency is full, except STEG that uses a report and has a low level of transparency.

In the case of Spain and Portugal intraday prices (continuous market) are not published by the TSO. In Turkey the information is made public by EPIAS.

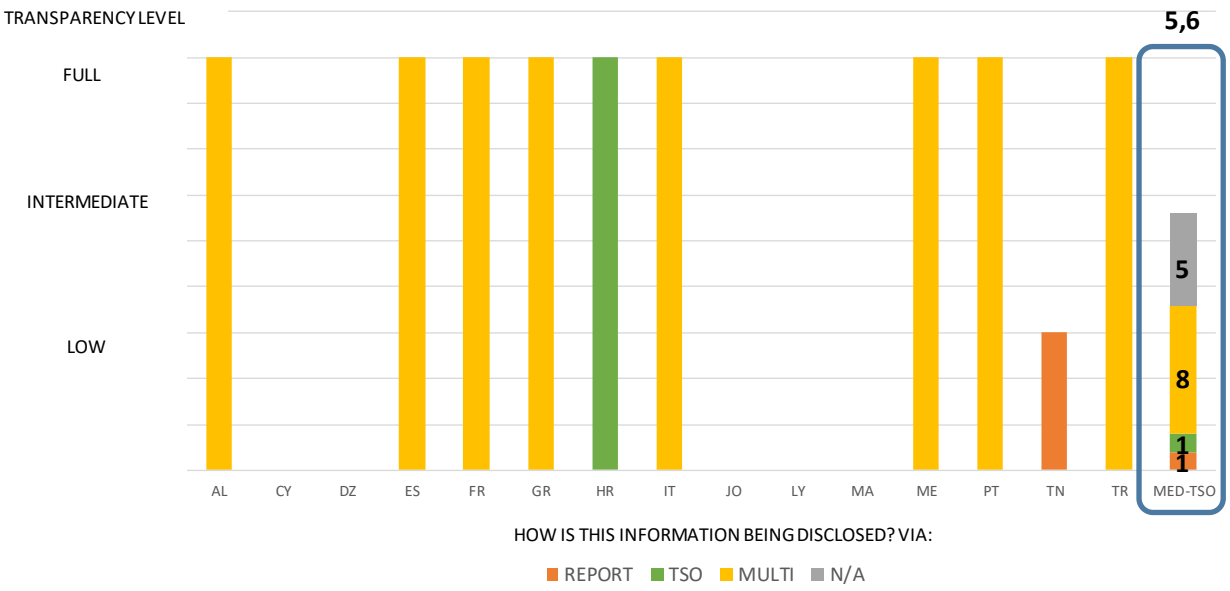


Figure 22. Graph of the transparency on the Daily and Intraday Markets

4.4.2 Use of interconnection (programs)

Almost all the TSOs, 14 out of 15, disclose this information, with the exception of Cyprus due to the lack of current interconnections. 60% of the TSOs have a full transparency level while 27% have a low transparency level. The average level of transparency is intermediate (6,6 out of 9). In general TSOs with low or intermediate transparency disclose the information using a report. The rest have full transparency and make the information public using a TSO or a multilateral-TSO webpage.

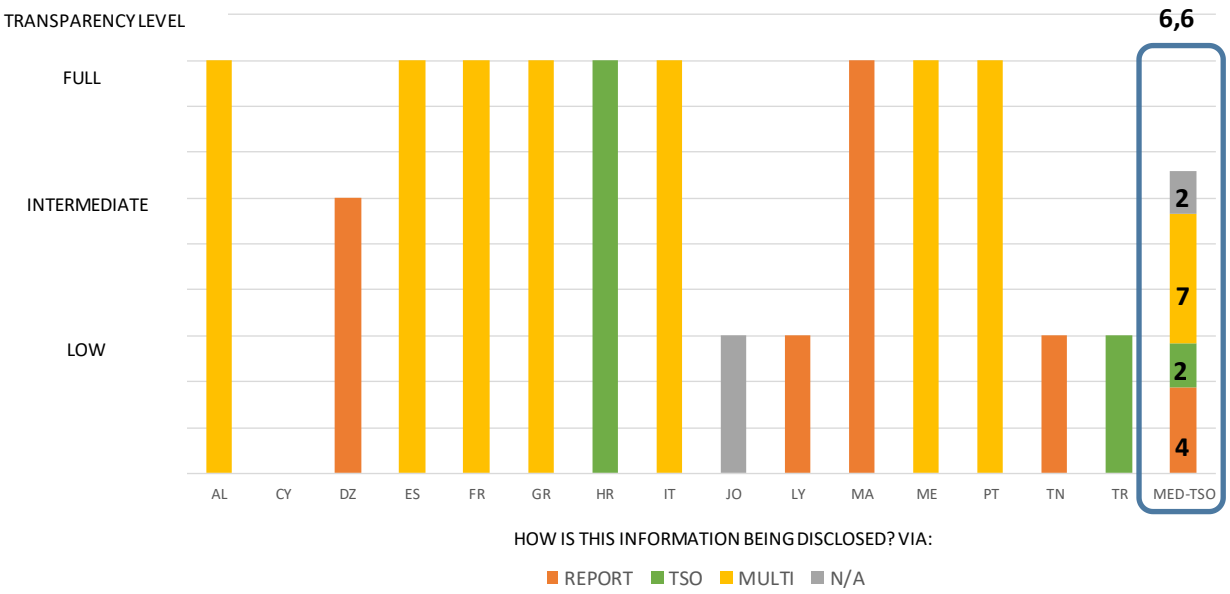


Figure 23. Graph of the transparency on the use of Interconnection

4.4.3 Use of interconnection (real time measures)

Only 12 out of the 15 TSOs make available this information, 8 of them with full level via TSO or multilateral-TSO webpage and 3 of them with low level. The average level of transparency is intermediate (5,8 out of 9).

Figure 24. Graph of the transparency on the Use of Interconnection

4.4.4 Forecasted capacity – day ahead, month ahead and year ahead

Almost all the TSOs, 14 out of 15, disclose this information, the exception being Cyprus due to the lack of current interconnections. 4 out of those 14 TSOs have a low level of transparency. The average level of transparency is intermediate (6,6 out of 9). In general, TSOs with low or intermediate transparency disclose the information using a report. The rest have full transparency and make the information public using a TSO or a multilateral-TSO webpage, except Montenegro, that uses a report.

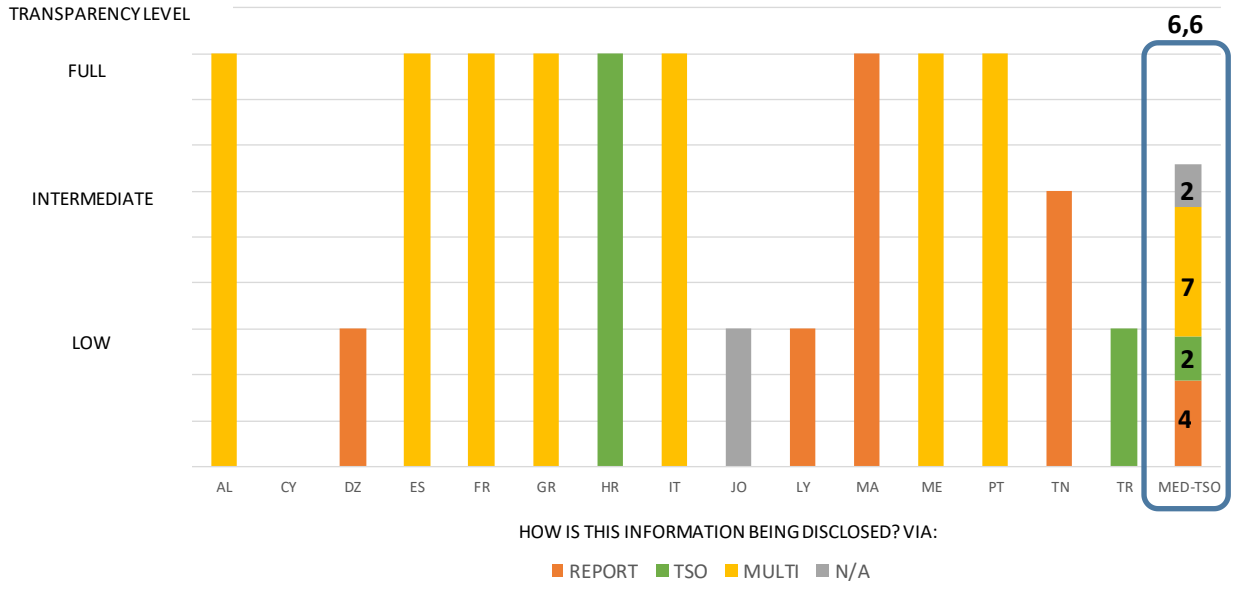


Figure 25. Graph of the transparency on the Forecast Capacity

4.4.5 Information on international exchanges mechanism (i.e. auction)

Almost all the TSOs, 12 out of 15, make available this information, but out of those Libya has a low transparency and Tunisia intermediate. No information is published in Algeria and Jordan (also in Cyprus due to the lack of current interconnections). The average level of transparency is also intermediate (6,6 out of 9). In general TSOs with low or intermediate transparency disclose the information using a report. The rest have full transparency and make the information public using a TSO or a multilateral-TSO webpage, except Montenegro, that uses a report. Information from Greece is full for the results but intermediate for the mechanism. In Turkey the information is published by TCAT.

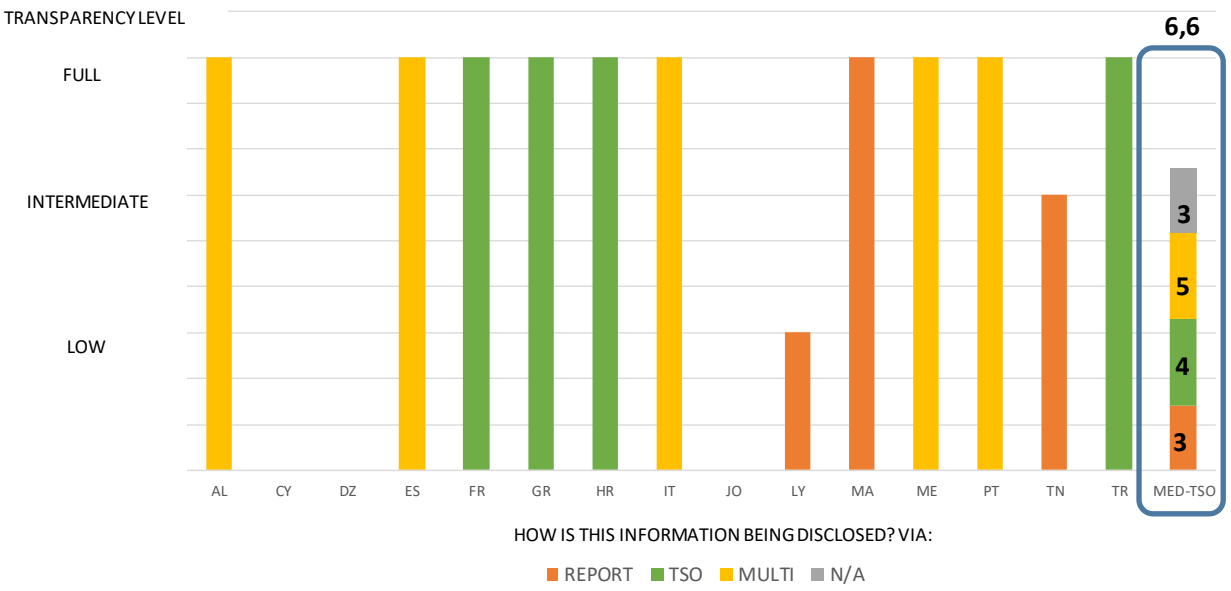


Figure 26. Graph of the transparency on the Information on International Exchanges Mechanism

4.4.6 Congestion Income (allocation mechanisms or tolls)

Only 11 out of the 15 TSOs make this information public and 6 of them, namely Spain, France, Croatia, Italy, Montenegro and Portugal have a full level of transparency and reveal the information using a TSO or a Multilateral-TSO webpage. The average level of transparency is low (5,4 out of 9).

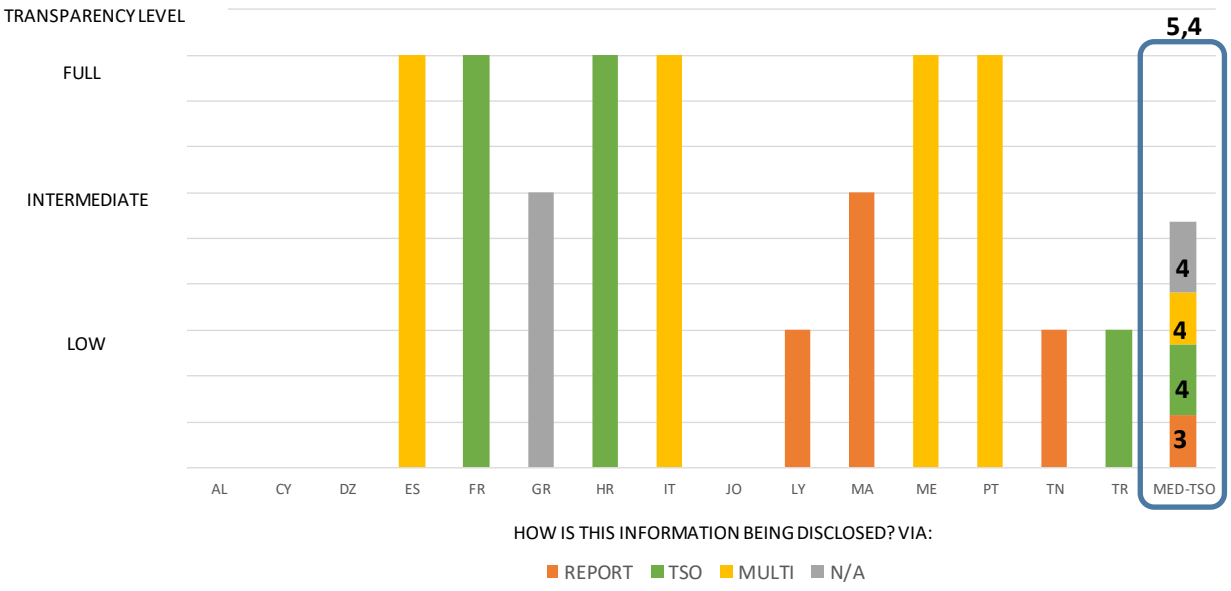


Figure 27. Graph of the transparency on the Congestion Income

4.4.7 Information on balancing reserves (volumes, prices, exchanges)

Only 12 out of the 15 TSOs make this information public. Most of them with a full level of transparency, except Greece and Morocco with intermediate and Libya and Turkey with low level. In the case of Cyprus the answer provided was according to a law that will be in force in the near future. The average level of transparency is intermediate (6,0 out of 9).

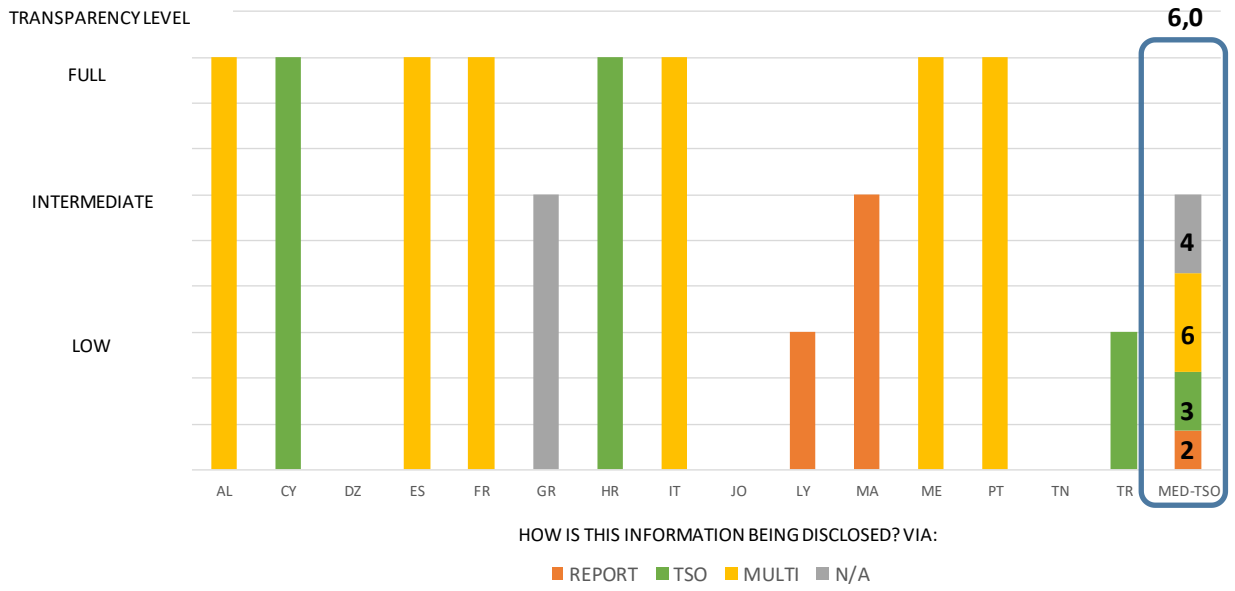


Figure 28. Graph of the transparency on the Information on Balancing Reserves

4.4.8 Information on balancing energies (volumes, prices, imbalances, exchanges)

Only 11 out of the 15 TSOs make this information public. Most of them with a full level of transparency, except Greece and Morocco with intermediate and Libya and Turkey with low level. In the case of Cyprus the answer provided was according to a law that will be in force in the near future. The average level of transparency is low (5,4 out of 9).

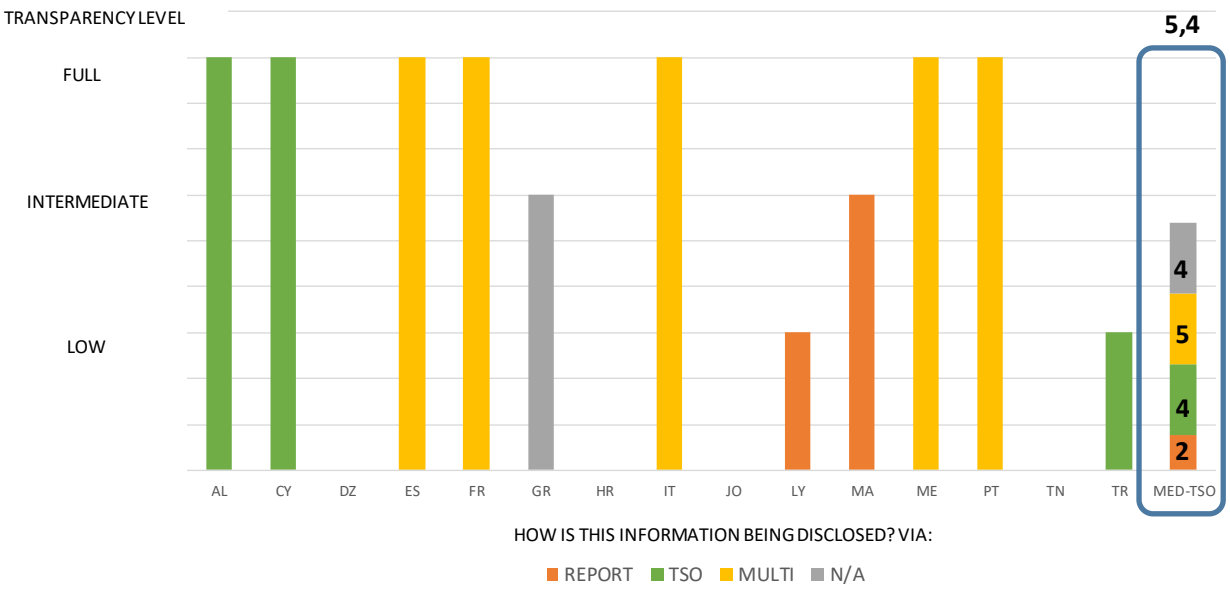


Figure 29. Graph of the transparency on the Information on Balancing Energies

4.4.9 Countertrading and/or re-dispatching (energy and cost)

Only 10 out of the 15 TSOs disclose this information, 2 of them (Libya and Tunisia) with low level of transparency and 1 of them Greece and Morocco with intermediate level. The average level of transparency is quite low (4,8 out of 9). In Turkey the information is published by TCAT.

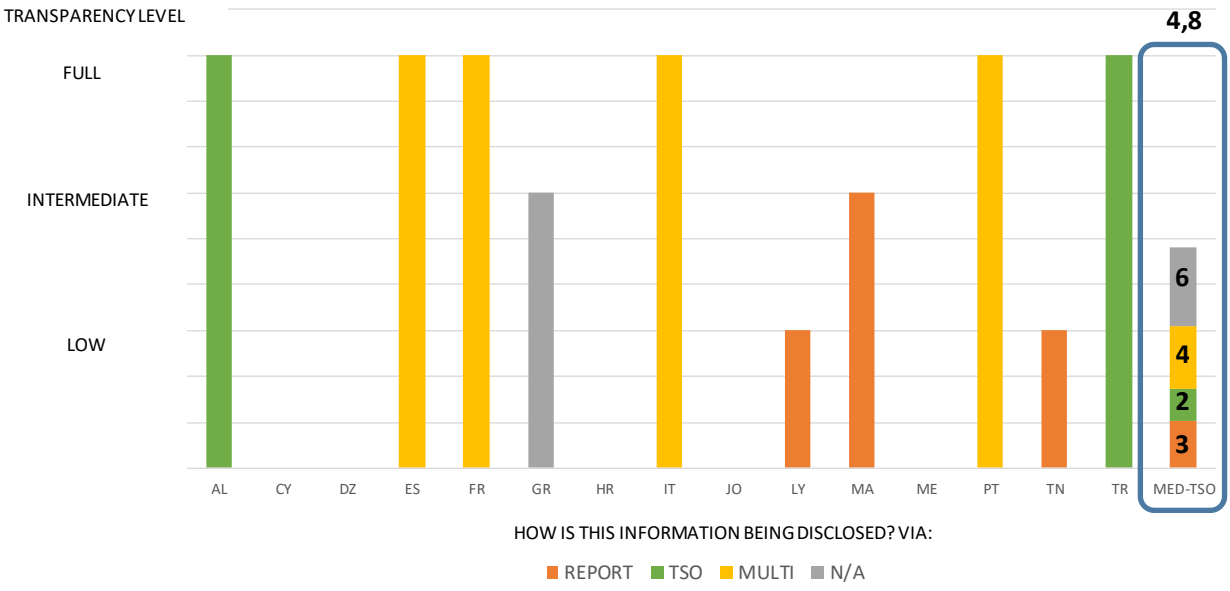


Figure 30. Graph of the transparency on the Counter and/or Re-dispatching.

4.5 Prospective information

4.5.1 Access and connection information (new generation by technology)

All TSOs disclose this information but only 7 (Albania, Spain, France, Greece, Croatia, Montenegro and Portugal) have full transparency and make this information available via their TSO webpage or via report. The average level of transparency is intermediate (6,4 out of 9).

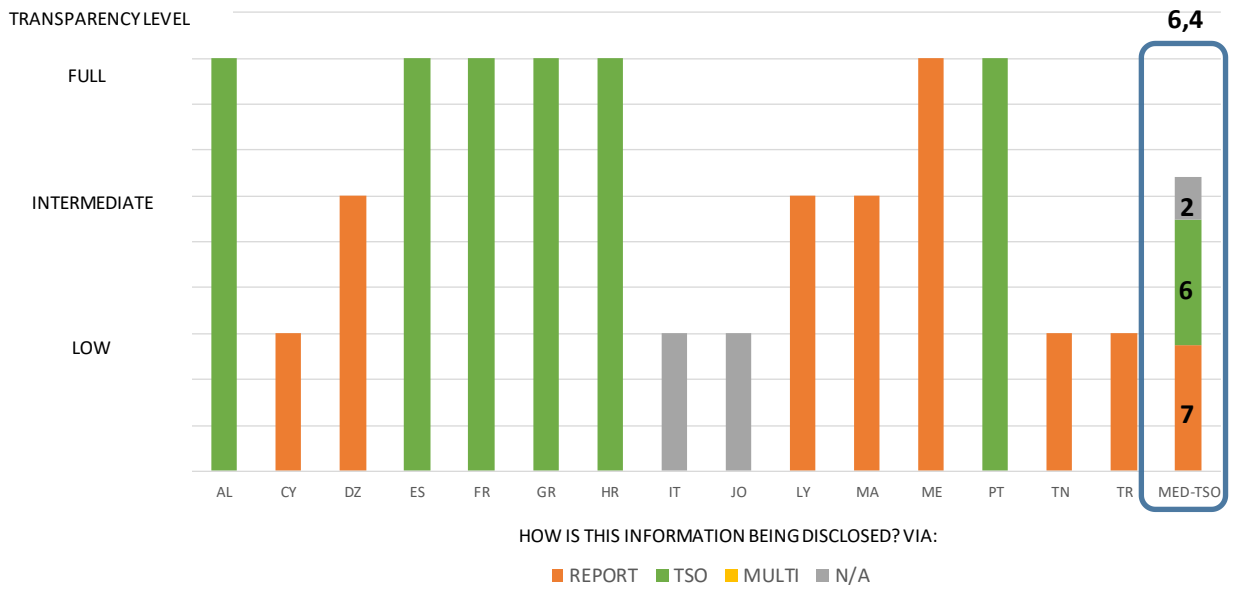


Figure 31. Graph of the transparency on the Access and Connection Information

4.5.2 Access and connection information (new generation by node)

All TSOs disclose this information but only 7 (Albania, Spain, France, Greece, Croatia, Montenegro and Portugal) have full transparency and reveal this information via their TSO webpage or via report. The average level of transparency is intermediate (6,2 out of 9).

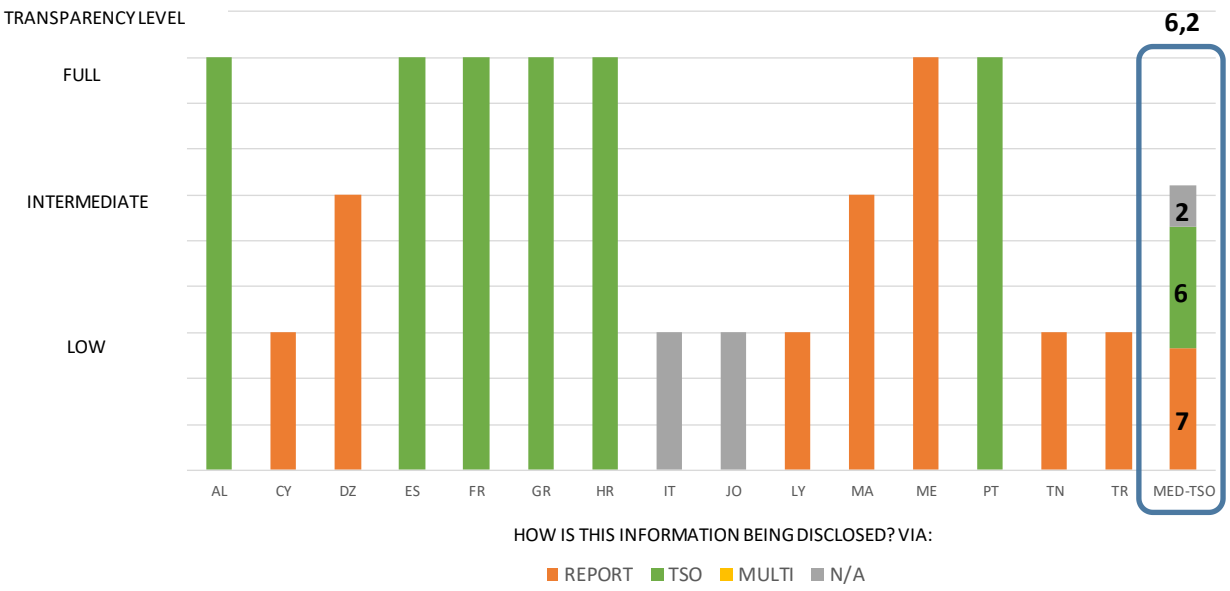


Figure 32. Graph of the transparency on the Access and Connection Information

4.5.3 Information and congested nodes

All TSOs disclose this information, except Cyprus due to the lack of current interconnection, but only 7 (Albania, Spain, France, Greece, Croatia, Montenegro and Portugal) have full transparency and make this information available via their TSO webpage or via report. In the case of Croatia the information is published using a report. The average level of transparency is intermediate (5,8 out of 9).

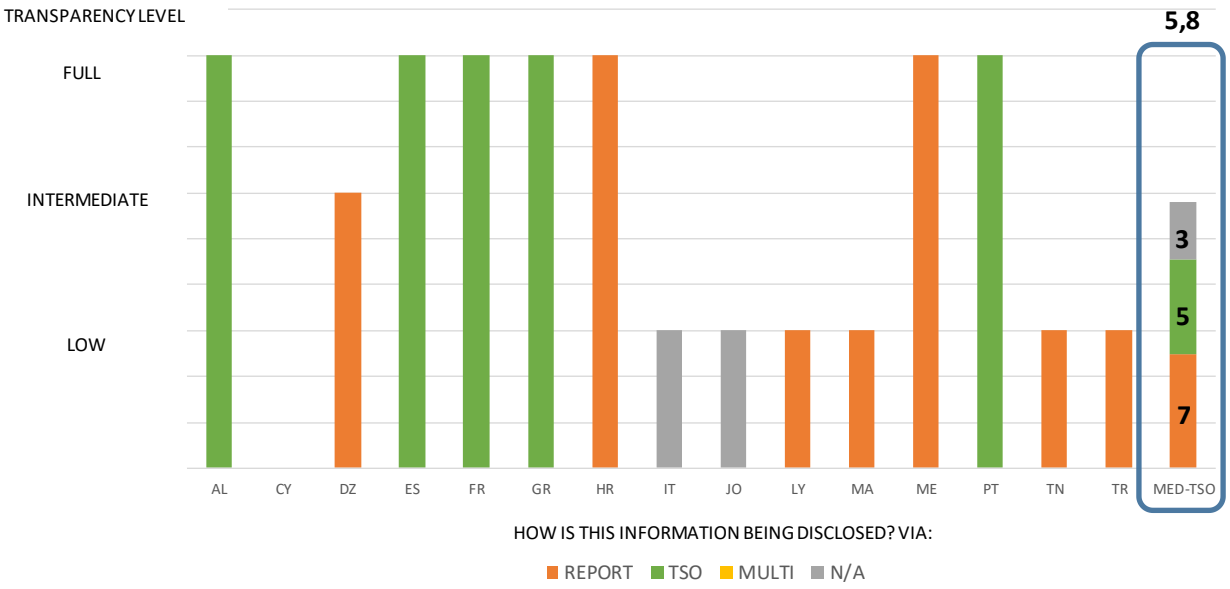


Figure 33. Graph of the transparency on the Information and Congested Nodes

4.5.4 Planning information: National & International Development Plans

All TSOs disclose this information. 10 of them (Albania, Spain, France, Greece, Croatia, Morocco, Italy, Jordan, Montenegro and Portugal) have full transparency and are either using a TSO or a multilateral-TSO webpage, except France, Morocco and Montenegro that publish a report as do the 6 TSOs with low or intermediate level of transparency. The average level of transparency is quite high (7,6 out of 9).

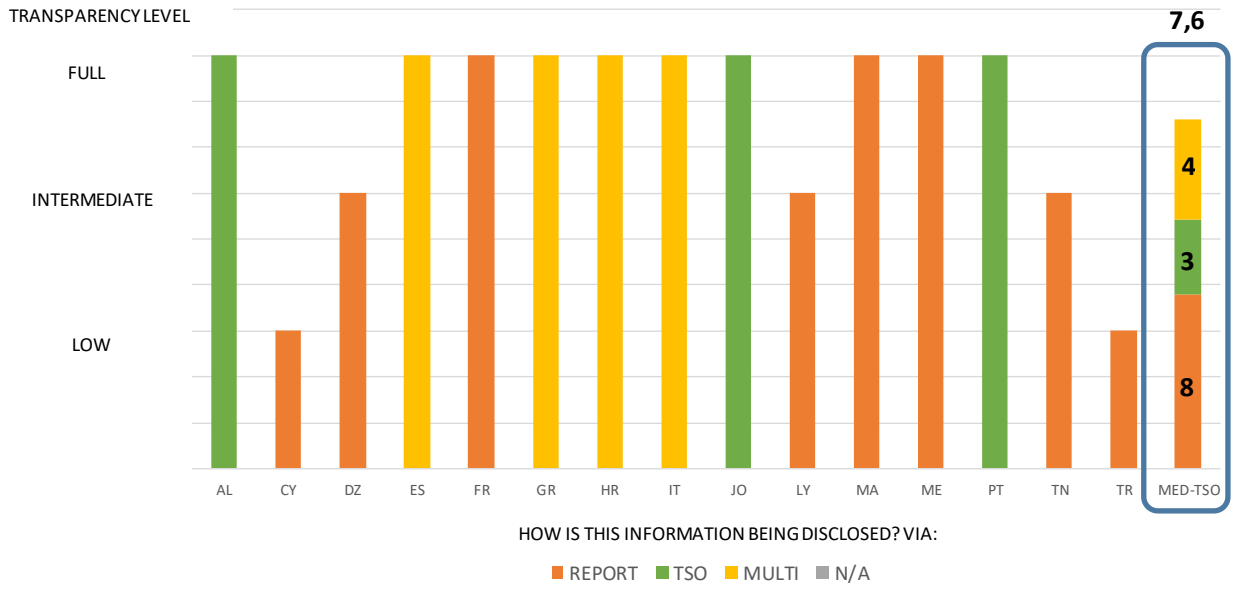


Figure 34. Graph of the transparency on the Planning Information

4.6 Historical data and statistic information

4.6.1 Load data

All the TSOs publish this information, in most cases using a multilateral-TSO webpage, while 4 TSOs (EPIAS in the case of Turkey) use a report. The average level of transparency is high (8,2 out of 9), as 12 TSOs have a full level of transparency.

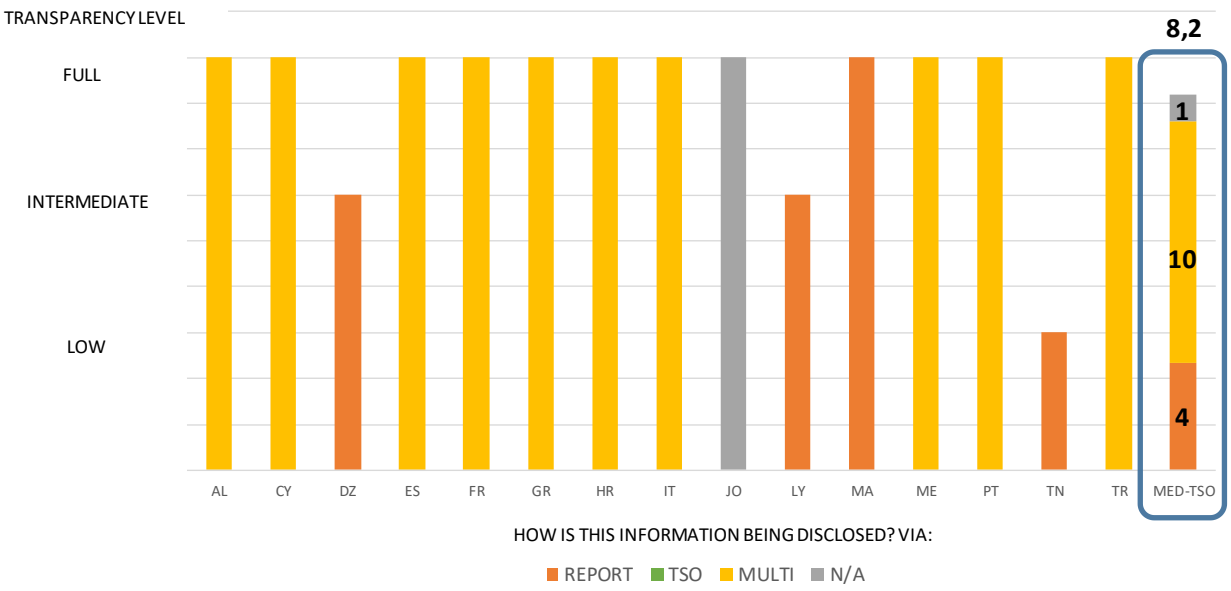


Figure 35. Graph of the transparency on the Load Data

4.6.2 Generation data

All the TSOs publish this information, in most cases using a multilateral-TSO webpage, while 4 TSOs (EPIAS in the case of Turkey) use a report. The average level of transparency is high (8,0 out of 9), as 11 TSOs have a full level of transparency.

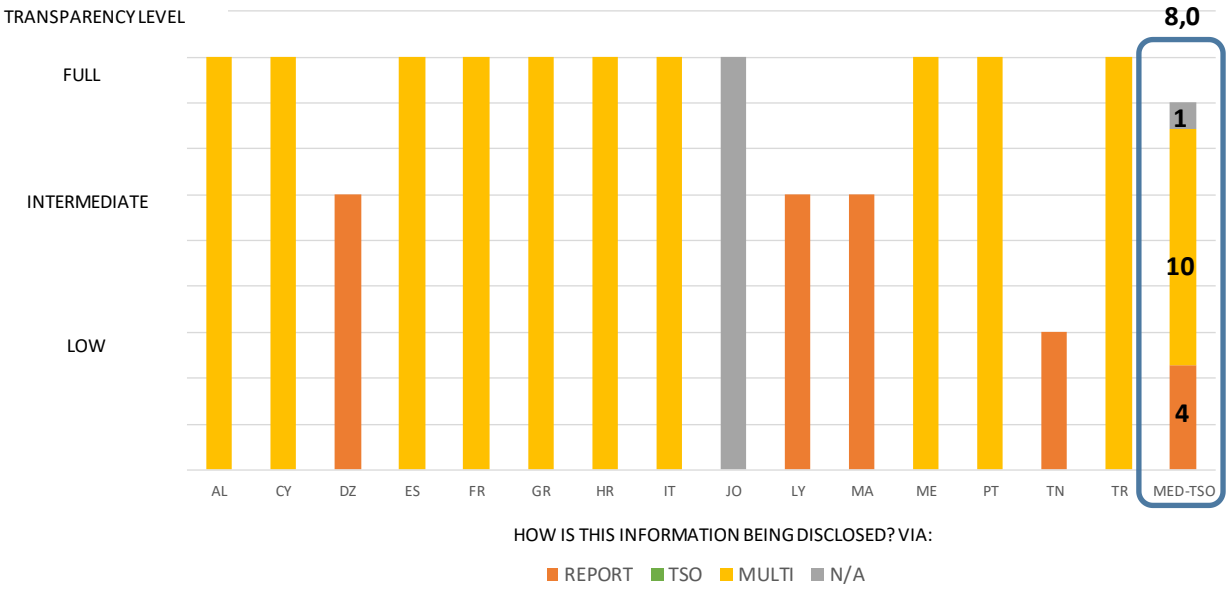


Figure 36. Graph of the transparency on the Generation Data

4.6.3 Market prices

Only 10 out of the 15 TSOs disclose this information (EPIAS in the case of Turkey) as Morocco, Algeria, Jordan, Libya and Tunisia do not publish this information. The countries that do disclose this information, have full transparency and make this information available in a TSO or a multilateral-TSO webpage. In the case of Cyprus this data is not currently available, but it will be obligatory to disclose it in the near future. The average level of transparency is intermediate (6,0 out of 9).

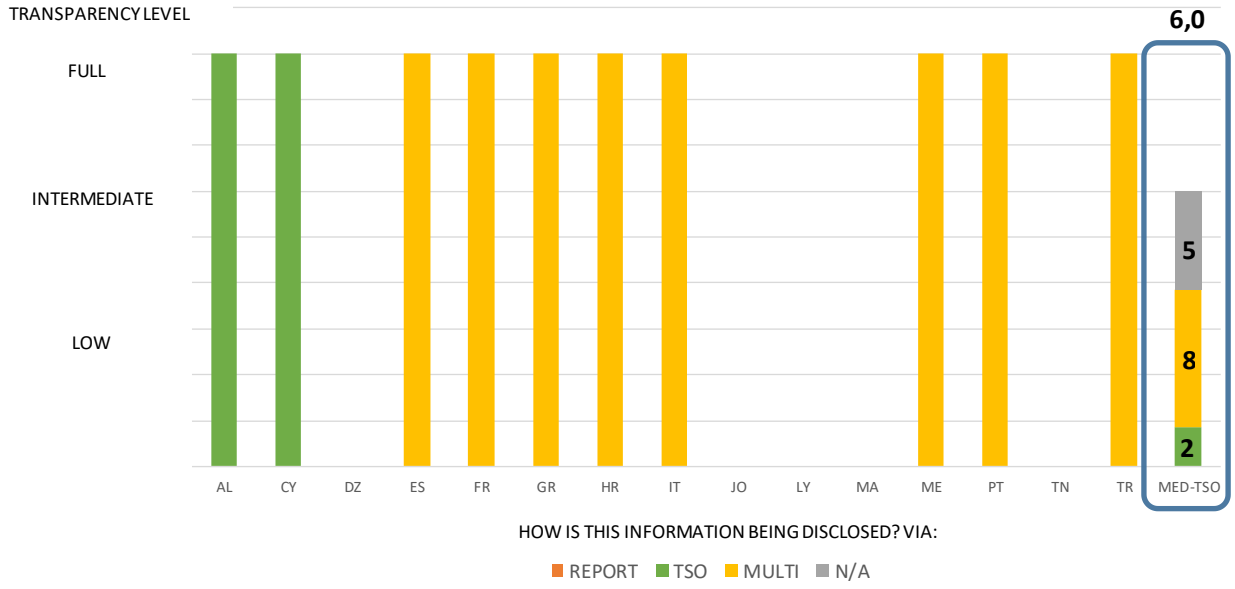


Figure 37. Graph of the transparency on the Market Prices

4.6.4 Interconnection information (capacity, auctions …)

All the TSOs disclose this information except TSOC due to the lack of current interconnections. The majority of them, 9 out of 14, have full transparency and publish this information in a Multilateral-TSO webpage, The other 5 have intermediate transparency and use a report. The average level of transparency is high (7,4 out of 9).

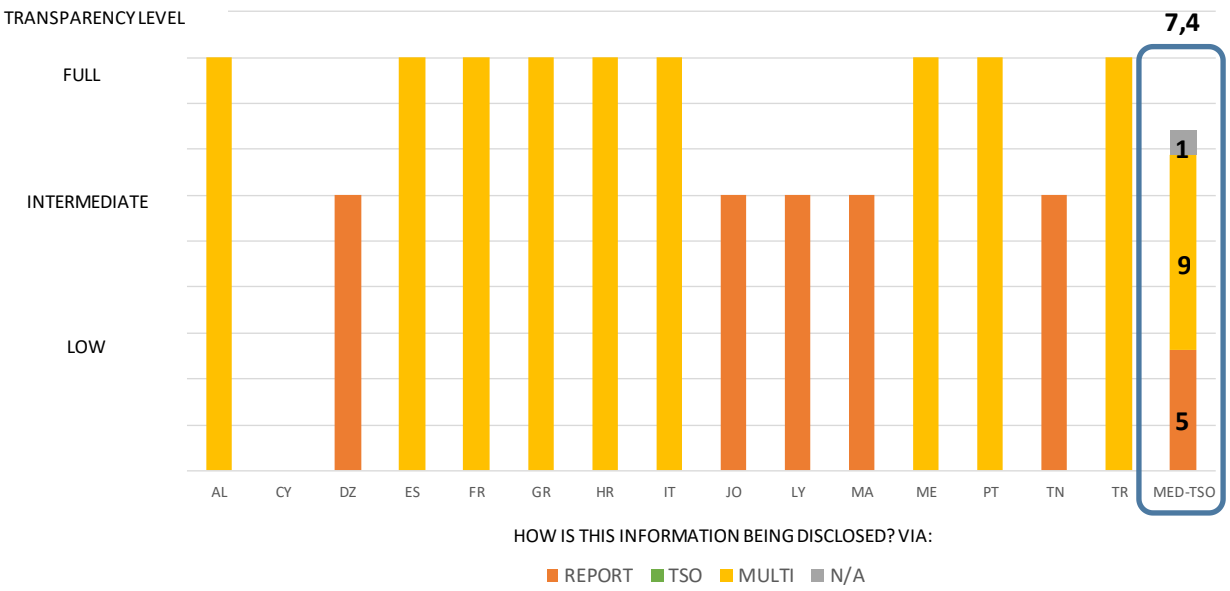


Figure 38. Graph of the transparency on the Interconnection Information

4.7 Conclusions

In the graph below the transparency level of the 34 issues can be shown. 21 out of 34 issues have a transparency level higher than 6 (intermediate level), but only 4 issues have a transparency level higher than 4.

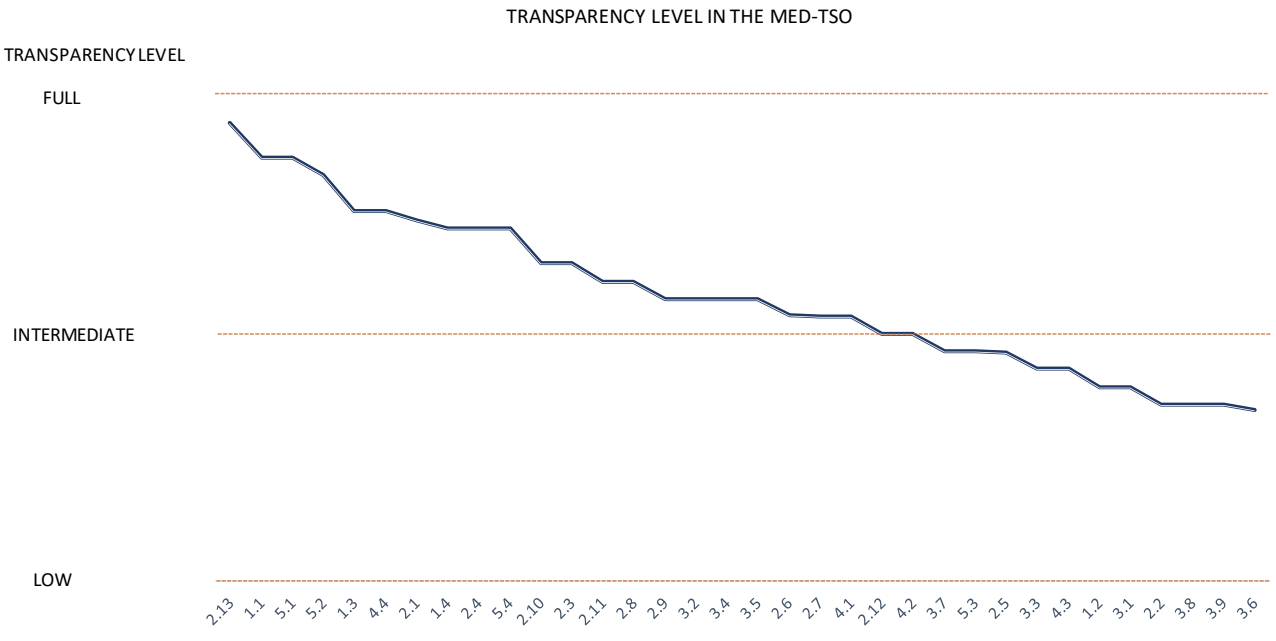


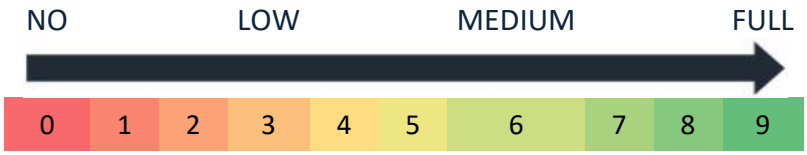
Figure 39. Transparency level summary

In addition, based on the results of the survey a general index of transparency in each power system has been calculated, as the average of the 34 issues included in the survey. The following values have been considered for the calculation:

Answers	Values	Detail
FULL	9	Full transparency: Available to the public in general
INTER	6	Intermediate transparency: Available for stakeholders.
LOW	3	Low transparency: Available only to Regulators or Administration
NO or N/A	0	No transparency: Not available.

Figure 40. Description of the transparency value.

This average gives the level of transparency varying from a range of 0 to 9. When this value is close to 9 then the TSO has a high level of transparency while when this value is close to 0 then the TSO has a low level of transparency. The next scale gives the level of transparency.



This analysis allowed us to conclude that the countries of Mediterranean region are divided into to 4 categories according to the level of transparency as shown in the image below.

1- **Very high level**: this group is constituted by the Mediterranean countries of South West Europe such as **France**, **Spain** and **Portugal** with an average equals 9 which have declared that the information for the 34 issues is available to the public in general in their country.
2- **High level**: this group is constituted by the European countries located in the centre of the Mediterranean region (**Albania**, **Italy, Greece, Montenegro** and **Croatia**) with an average value between 7.9 and 8.5. Most of the information is available to the public in general.
3- **Medium level:** this group is constituted by two countries (**Morocco** and **Turkey)** with an average value between 4.9 and 6.1.
4- **Low level**: this group is constituted by most southern Mediterranean countries such as **Algeria**, **Tunisia**, **Jordan** and **Libya** with an average value between 3.2 and 4.1. In general, information is available only to Regulators or Administration and only some of the information is available for stakeholders or public in general. **Cyprus** is also part of this group but, in many cases, the information is not available because it does not exist due to the isolated situation of Cyprus power system; so this analysis should be considered with special attention in this case.

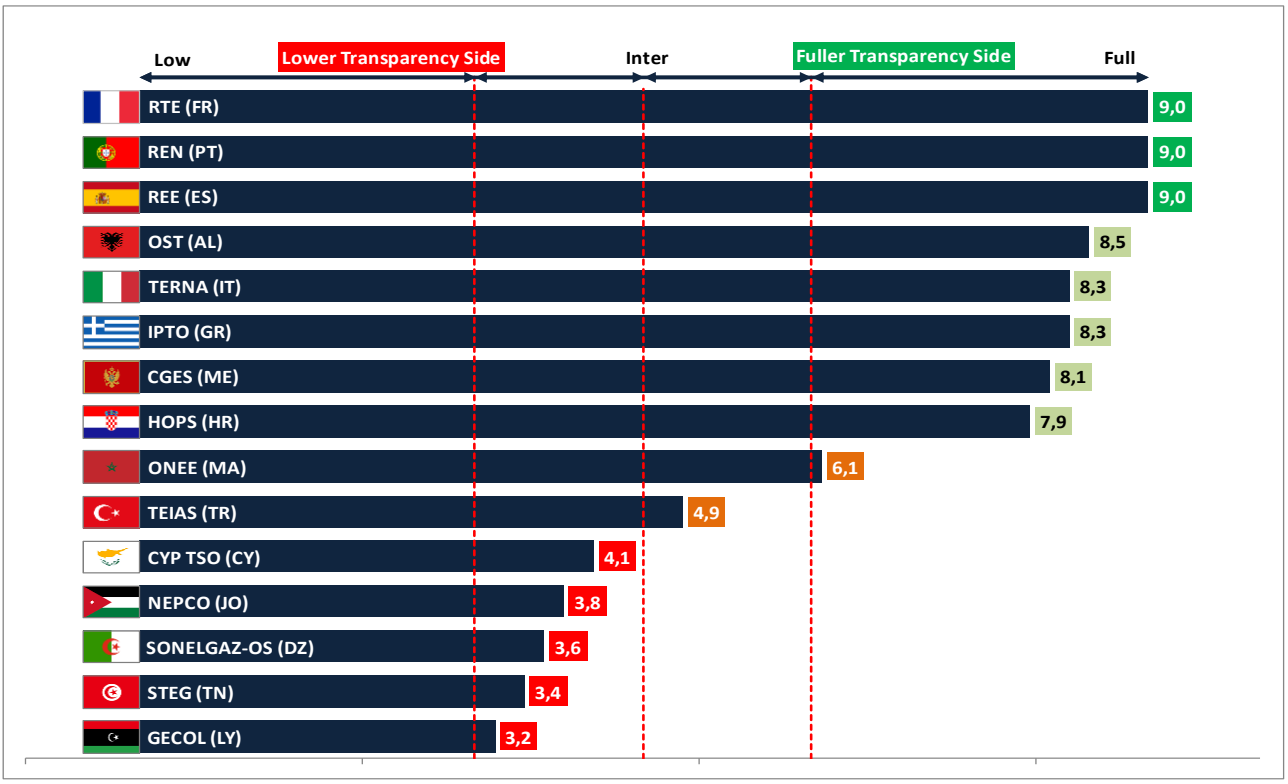


Figure 41. Mean of the transparency level of each country

5 Expected future situation on transparency in Mediterranean region.

In this chapter the results of the survey regarding the expected situation on transparency in the Mediterranean region are presented.

5.1 Basic information of the power system

5.1.1 Applicable regulation (national)

All TSOs consider national regulation disclosure as an issue with high (7) or medium (8) priority to be transparent in the Mediterranean region. The average priority is quite high (7,4 out of 9). Almost all TSOs, 12 out of 15, believe their own TSO webpage should be the platform where this information should be disclosed. In the case of Spain and Montenegro, together with Med-TSO webpage.

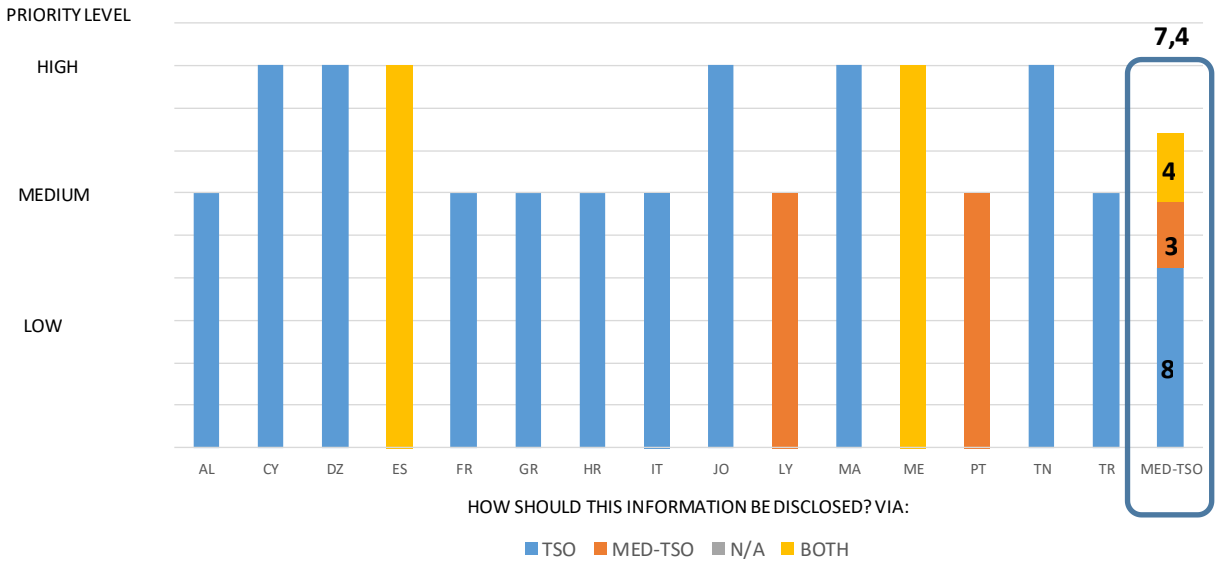


Figure 42. Graph of the priority on disclosing the Applicable National Regulation

5.1.2 Applicable regulation (regional, if any)

11 out of 15 TSOs consider regional regulation should be transparent in the Mediterranean region, 4 with high priority and 6 with intermediate priority. The average priority is quite high (7,4 out of 9).

Regarding format to be disclosed, the preferences are rather heterogeneous: 3 TSOs prefer to publish the information in the TSO webpage, 4 in Med-TSO website and 4 in both.

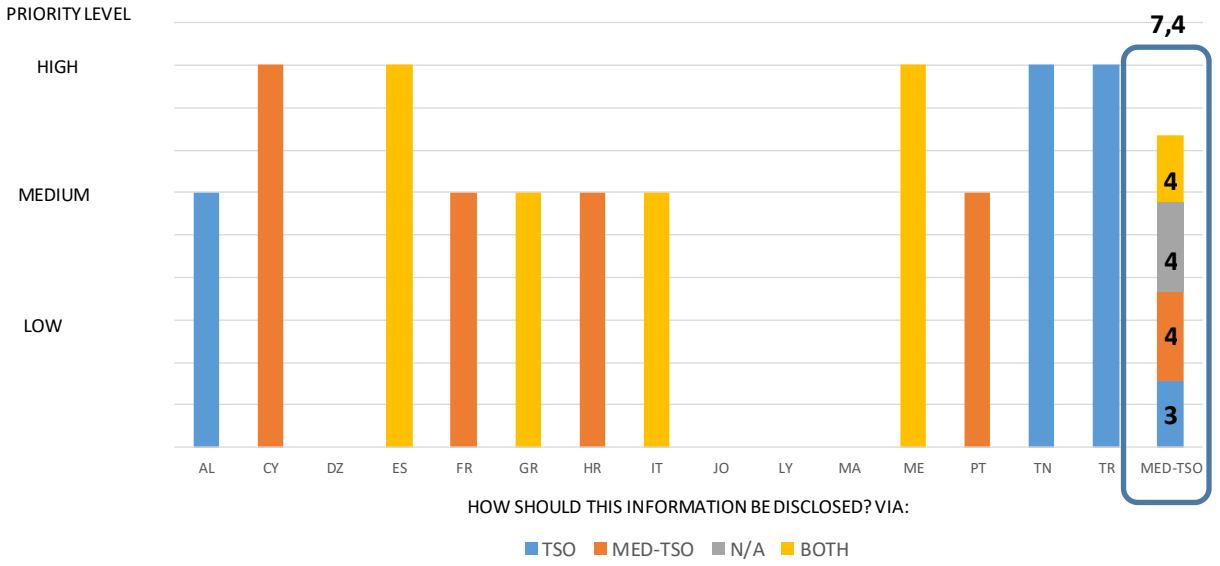


Figure 43. Graph of the priority on disclosing the Applicable Regional Regulation

5.1.3 Transmission system description

All the TSOs except TSOC, think that this information should be available. The average priority is quite high (7,1 out of 9). And most of the TSOs, 9 out of 14, think that this information should be available in both their own TSO and the Med-TSO webpage.

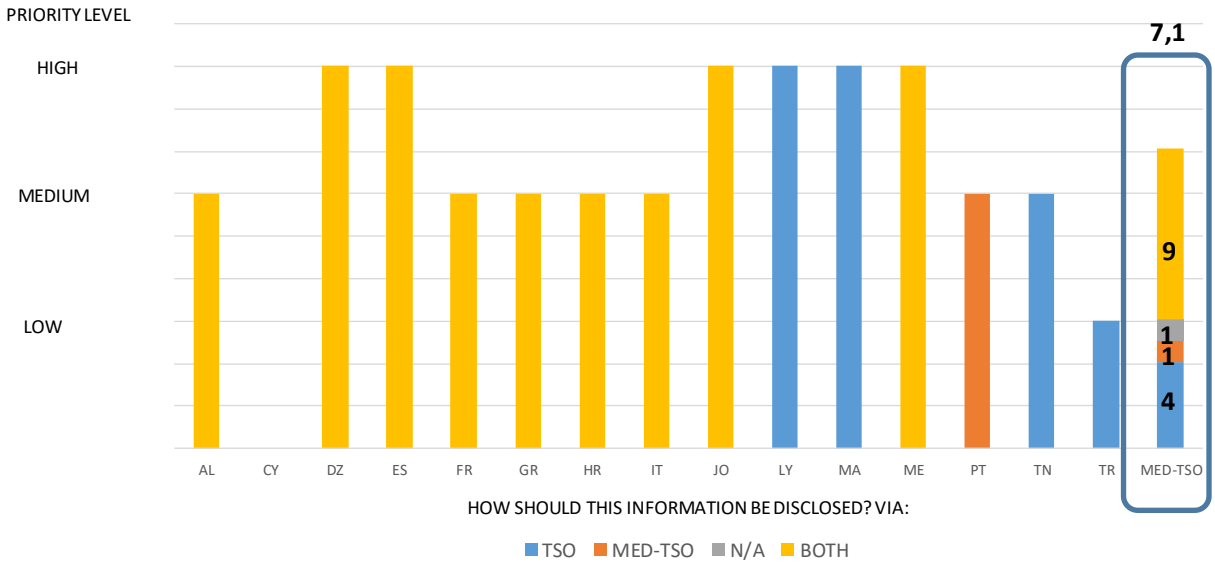


Figure 44. Graph of the priority on disclosing the Transmission System Description

5.1.4 Transmission grid map

All the TSOs believe this data should be disclosed, and most TSOs, 9 out of 14, think this data should be available on both their TSO and Med-TSO webpage. The average priority is quite high (7,4 out of 9).

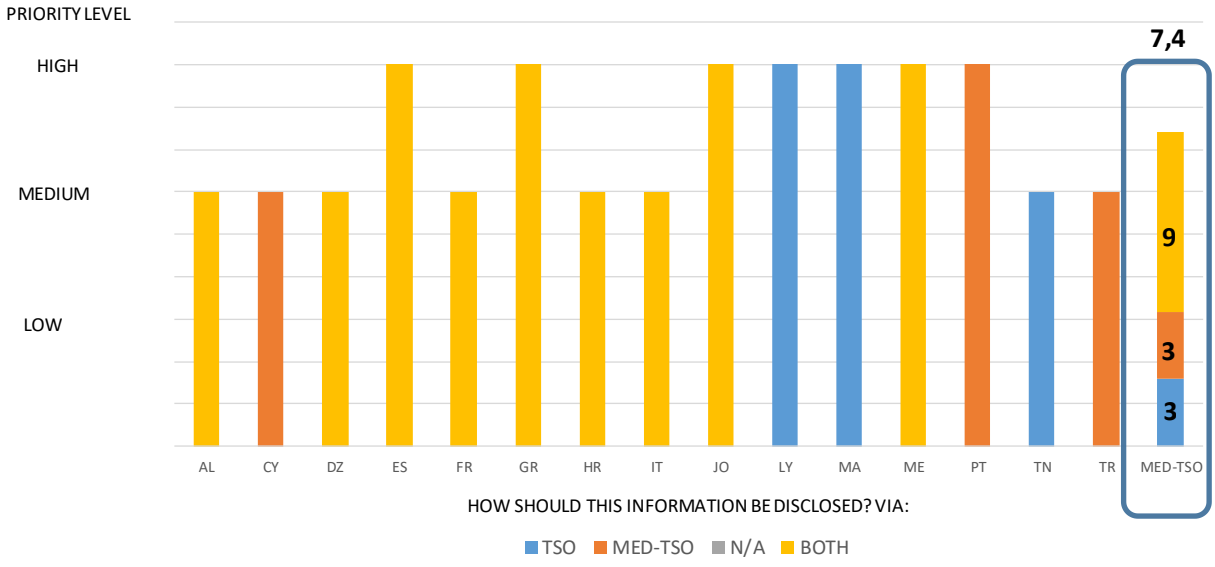


Figure 45. Graph of the priority on disclosing the Transmission Grid Map

5.2 Power system performance (operation aspects)

5.2.1 Generation by technology (real time)

All the TSOs, except Algeria, consider that this information should be published (8 with high priority, 5 with medium priority and 1 with low priority). The average priority is quite high (7,5 out of 9).

Regarding format to be disclosed, the preferences are rather heterogeneous: 5 TSOs prefer to publish the information in the TSO webpage, 2 in Med-TSO website and 7 in both.

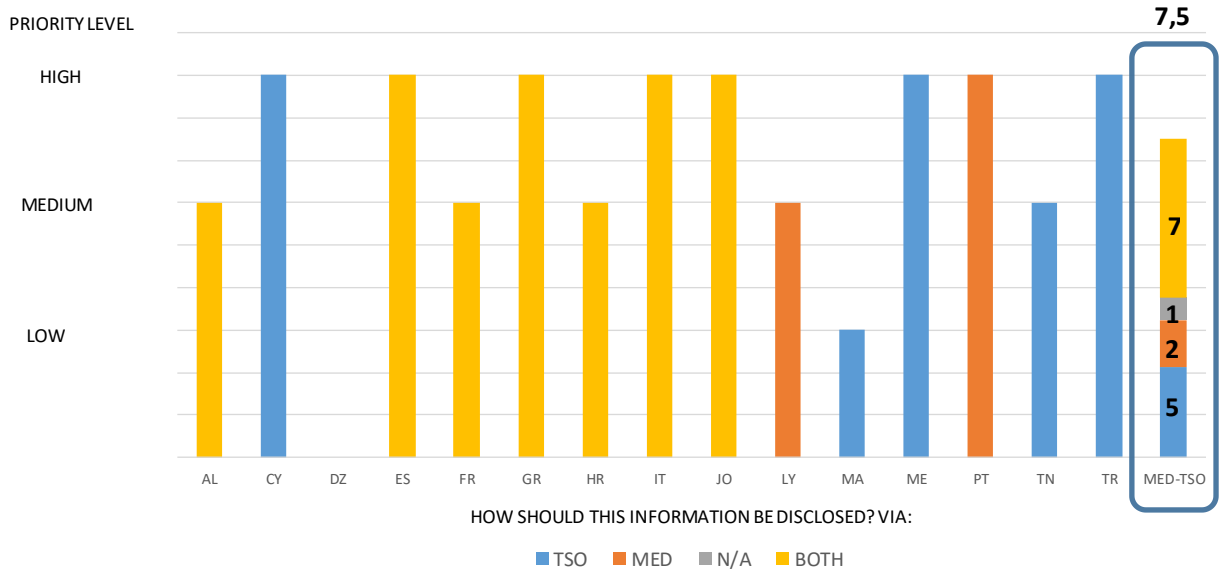


Figure 46. Graph of the priority on disclosing the Generation by Technology

5.2.2 Generation forecast (day ahead)

Almost all the TSOs but Jordan think this information should be disclosed. In all cases with high priority (except Libya, Morocco and Tunisia with medium priority). The average priority is high (7,9 out of 9).

Regarding format to be disclosed, the preferences are rather heterogeneous: 6 TSOs prefer to publish the information in the TSO webpage, 2 in Med-TSO website and 6 in both.

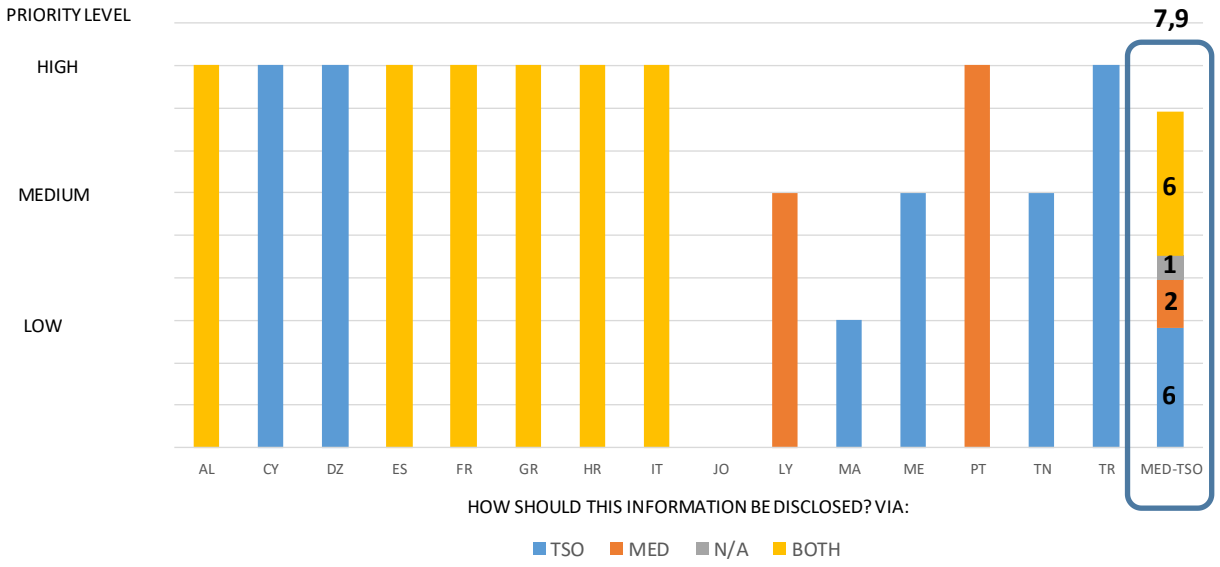


Figure 47. Graph of the priority on disclosing the Generation Forecast

5.2.3 Generation forecast for wind and solar

Almost all the TSOs but Jordan think this information should be transparent in the Mediterranean region. In all cases with high priority (except Libya and Tunisia with medium priority). The average priority is high (8,4 out of 9).

Regarding format to be disclosed, the preferences are rather heterogeneous: 5 TSOs prefer to publish the information in the TSO webpage, 2 in Med-TSO website and 6 in both.

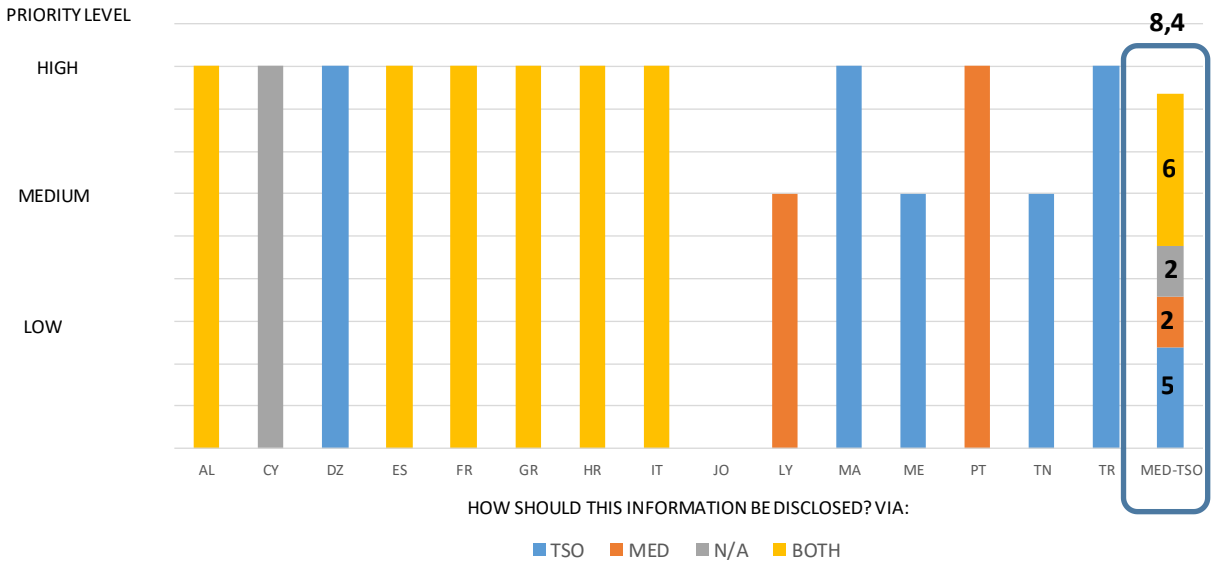


Figure 48. Graph of the priority on disclosing the Generation Forecast for Wind and Solar

5.2.4 Installed capacity by technology

All the TSOs set a high priority on disclosing this information, except NEPCO and CGES that set a medium priority. The average priority is high (8,6 out of 9).

Regarding format, 9 out of 15, think this information should be published in both their own TSO and in Med-TSO webpage.

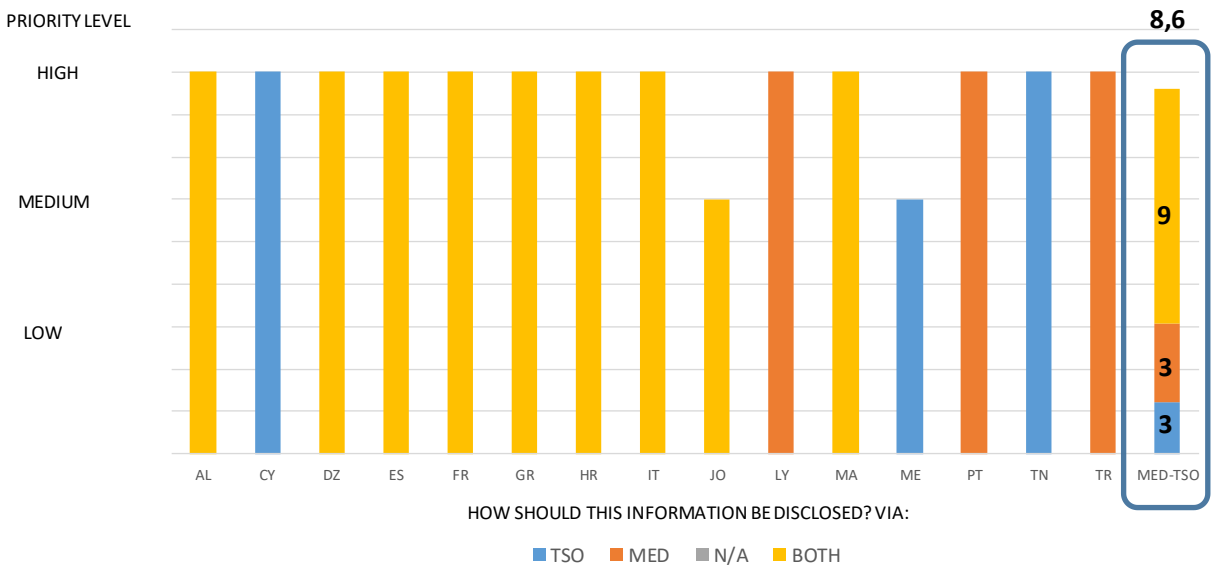


Figure 49. Graph of the priority on disclosing the Installed Capacity by Technology

5.2.5 Filling Rate of Water Reservoirs and Hydro Storage

13 out of the 15 TSOs are willing to disclose this information, but the majority of them do not think this should be a priority for Med-TSO (except Algeria and Italy with high priority). The average priority is low (4,4 out of 9).

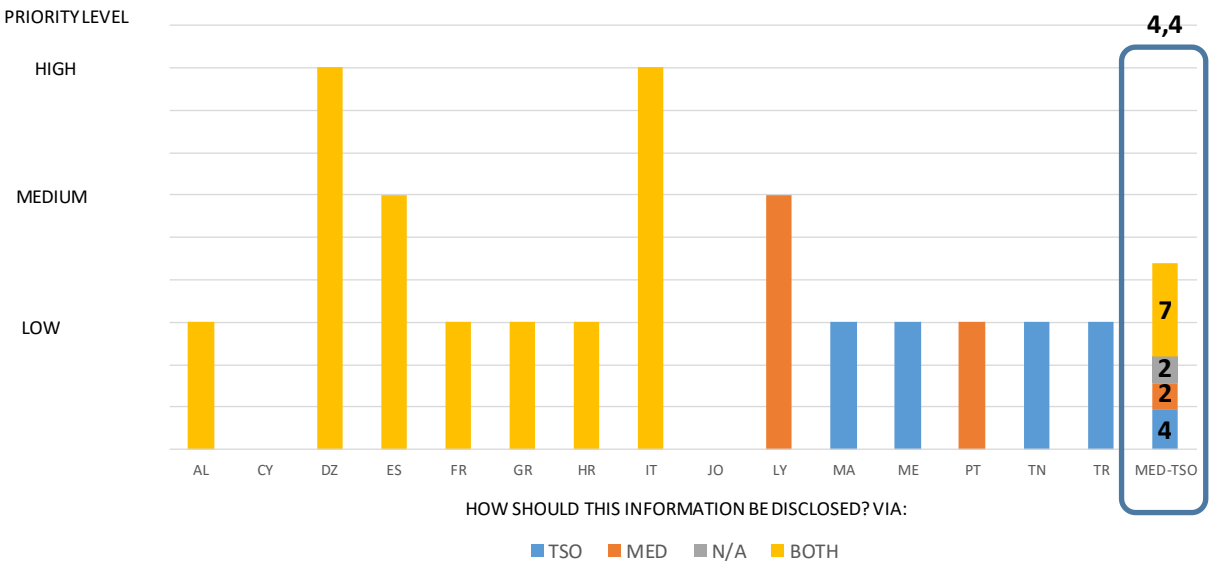


Figure 50. Graph of the priority on disclosing the Filling Rate Water Reservoirs & Hydro Storage

5.2.6 Load demand (real time)

Algeria is the only TSO that consider this issue should not be transparent. The average priority is quite high (7,1 out of 9), with 7 TSOs considering high, 5 medium and 2 low priority.

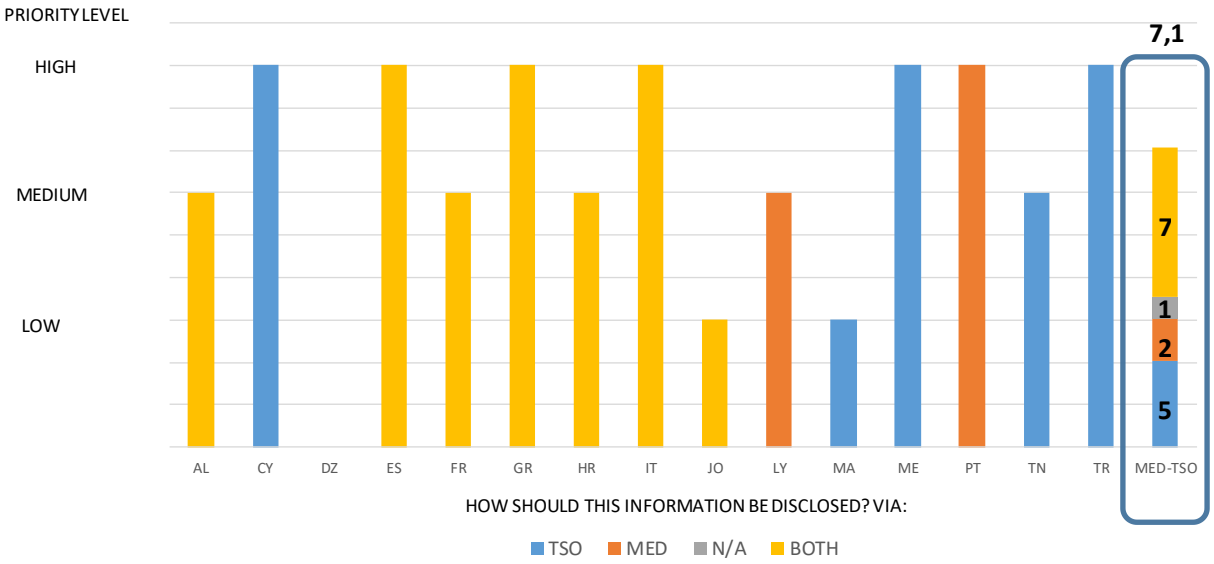


Figure 51. Graph of the priority on disclosing the Load Demand

5.2.7 Load demand forecasts (day, month and year ahead)

All TSOs agree that this data should be transparent in the Mediterranean region. In general with high and medium priority, except Croatia that considers low priority. The average priority is high (8,0 out of 9) and the majority of TSOs consider to publish this data both in their TSOs and in the Med-TSO webpage.

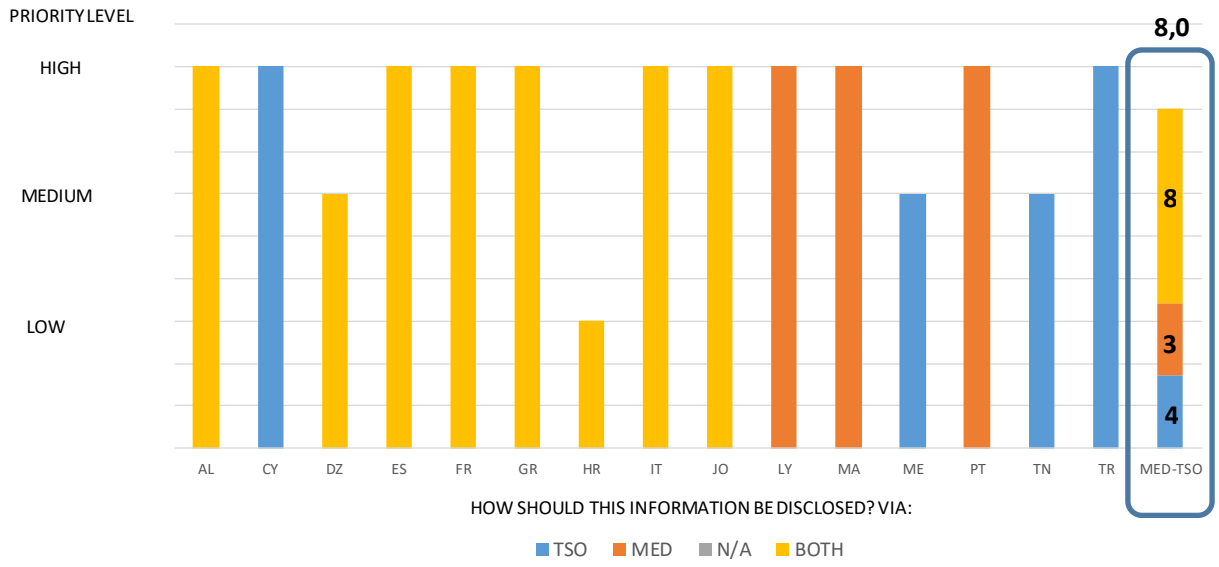


Figure 52. Graph of the priority on disclosing the Load Demand Forecasts

5.2.8 Demand side management mechanism (capacity, activation rules)

Almost all TSOs consider that this information should be transparent, except TSOC, with no Demand side management mechanism in place and consequently no specified transparency level for this type of information, and NEPCO. Anyway, in general the priority is not high (except in Croatia, Italy and Libya), resulting in an average medium priority (5,5 out of 9).

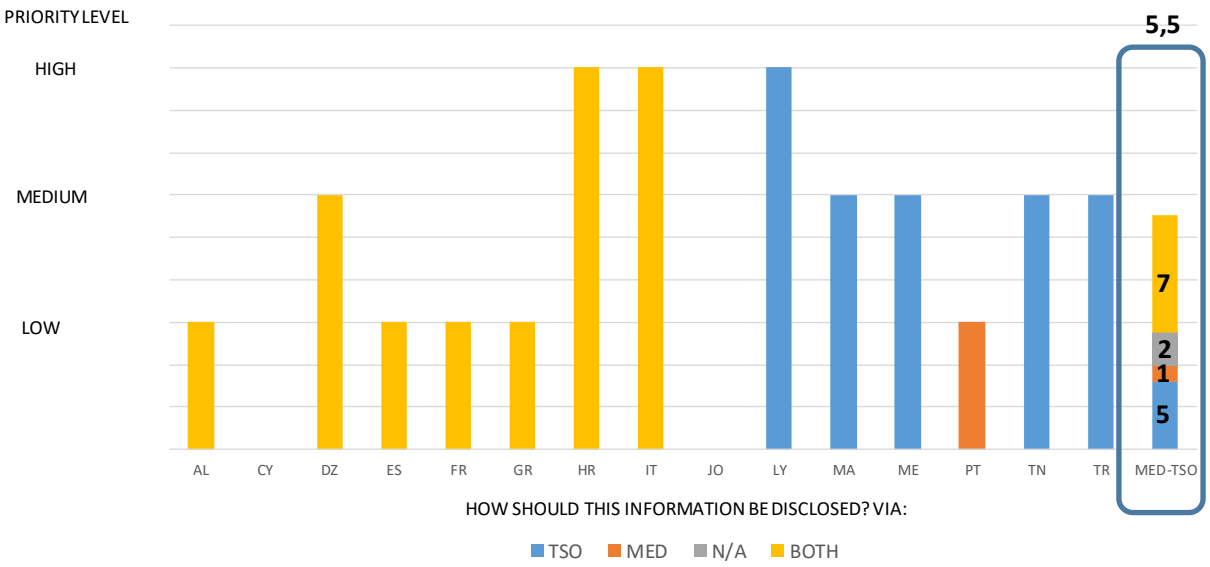


Figure 53. Graph of the priority on disclosing the Demand Side Management Mechanism

5.2.9 Forecast Margin Load/Generation

Only NEPCO and TSOC consider this data should not be transparent in the future but TERNA, HOPS and ONEE are the only ones setting a high priority. The average priority is medium (6,2 out of 9).

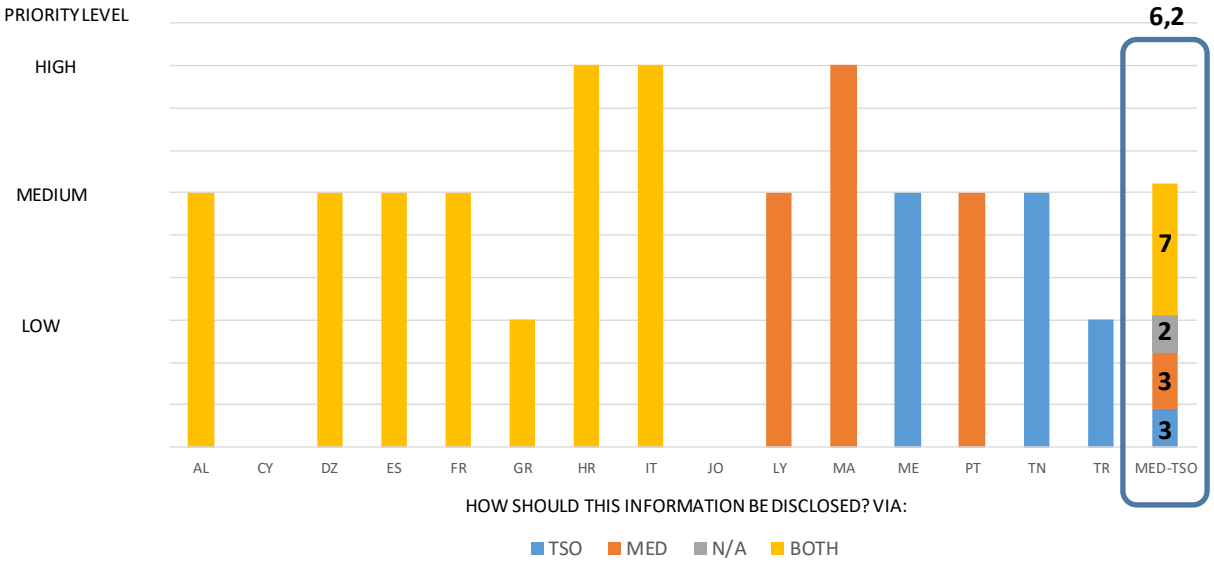


Figure 54. Graph of the priority on disclosing the Forecast Margin Load/Generation

5.2.10 Capacity and use of generation units and transmission grid

NEPCO and TSOC, are the only TSOs not willing to publish this information. The rest of TSOs think this should be a high-medium priority, except Greece. The average priority is quite high (7,4 out of 9).

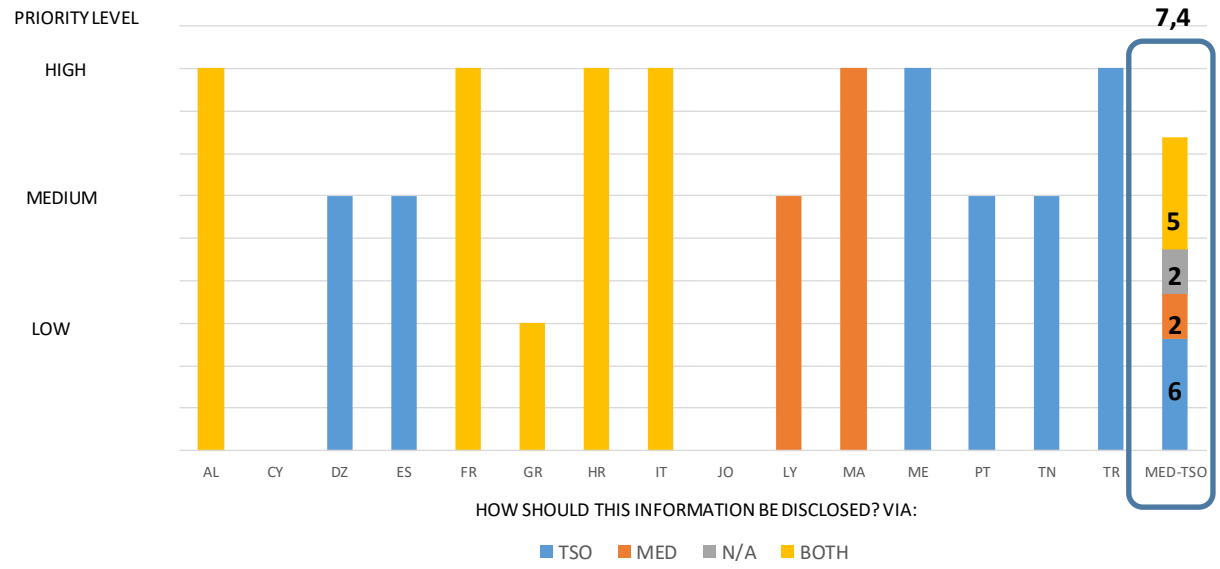


Figure 55. Graph of the priority on disclosing the Capacity and Use of Generation Units and Transmission Grid

5.2.11 Scheduled outages (transmission grid and generation units)

All the TSOs but NEPCO, consider this information should be published. Most of them set a high or a medium priority on this information being released, but with different formats of publishing (national TSO webpage or Med-TSO webpage). The average priority is high (7,2 out of 9).

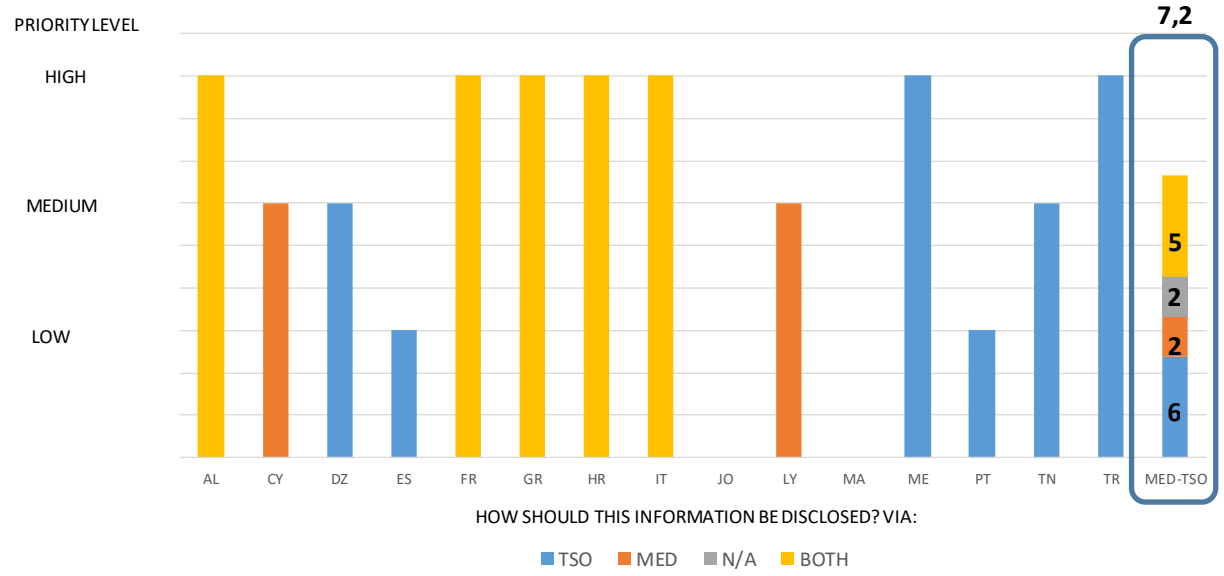


Figure 56. Graph of the priority on disclosing the Scheduled Outages

5.2.12 Unplanned outages (transmission grid and generation units)

All the TSOs but NEPCO, consider this information should be published. Most of them set a high or a medium priority on this information being released, but with different formats of publishing (national TSO webpage or Med-TSO webpage). The average priority is medium (6,6 out of 9).

Figure 57. Graph of the priority on disclosing the Unplanned Outages

5.2.13 Constraints on Generation usage (must-run, limitations, environmental constraint, fuel constraint)

All the TSOs agree on this information being disclosed, but most of them think this should not be a priority for the Med-TSO. The average priority is low (5,2 out of 9).

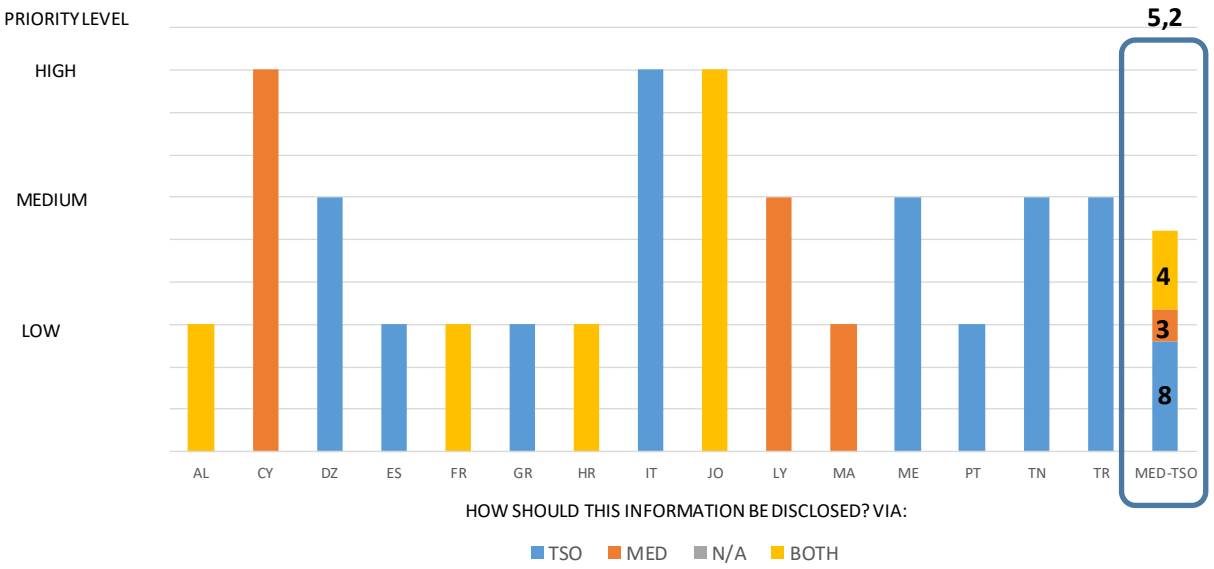


Figure 58. Graph of the priority on disclosing the Constraints on Generation Usage

5.3 Information about markets (including interconnection management and available capacity)

5.3.1 Daily and intraday markets

Only 12 out of the 15 TSOs think this data should be published. And out of this 12, the majority (7 out of 12) think this information should be in both their TSO and the Med-TSO webpage. In general the priority is medium or high. The average priority is high (7,8 out of 9).

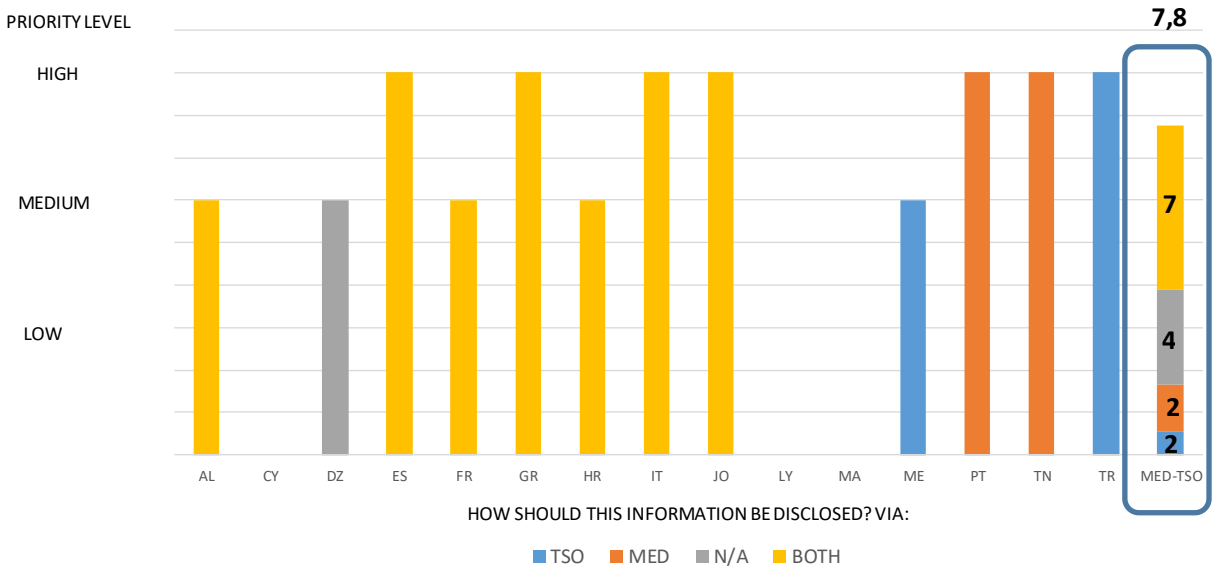


Figure 59. Graph of the priority on disclosing the Daily and Intraday Markets

5.3.2 Use of the interconnection (programs)

Most of the TSOs (14 out of 15) agree on the need to publish this information, except TSOC, with no current interconnections and consequently no specified transparency level for this type of information. Out of this 14 TSOs, all think that the priority in this issue should be at least medium and the information should at least be available at the Med-TSO webpage. The only exception is Turkey that sets a low priority in the issue and considers that information should only be available on their TSO webpage. The average priority is high (7,7 out of 9).

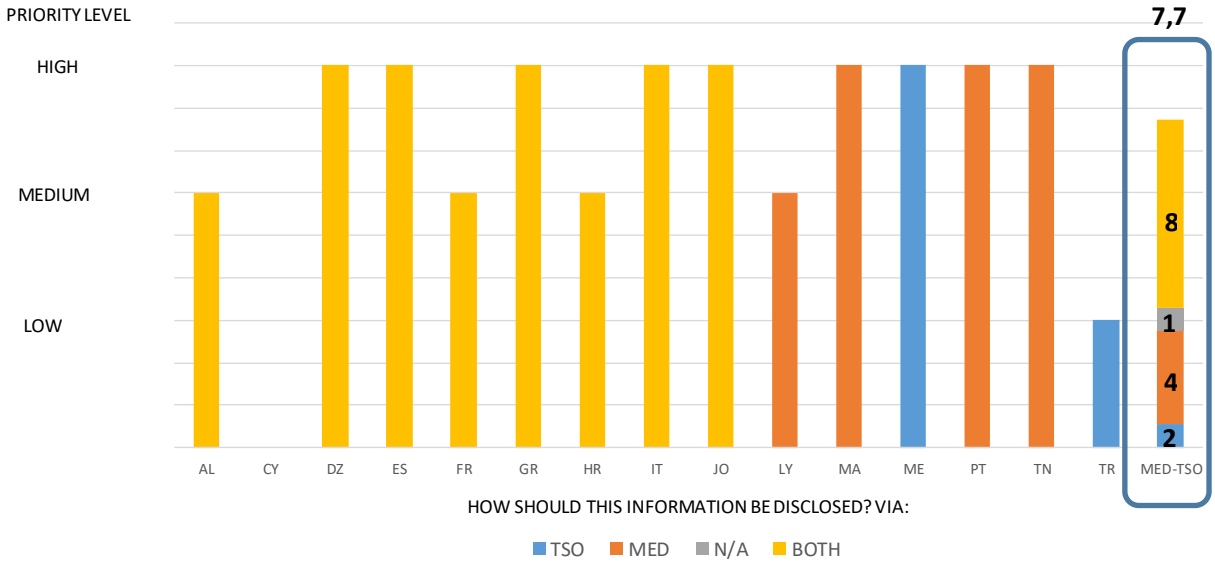


Figure 60. Graph of the priority on disclosing the Use of Interconnection

5.3.3 Use of the interconnection (real time measures)

Almost all the TSOs consider this information should be published, except Cyprus, with no current interconnections and consequently no specified transparency level for this type of information. In addition, almost all of them, except Turkey and Montenegro, consider this information should at least be available on the Med-TSO webpage. The average priority is high (7,3 out of 9).

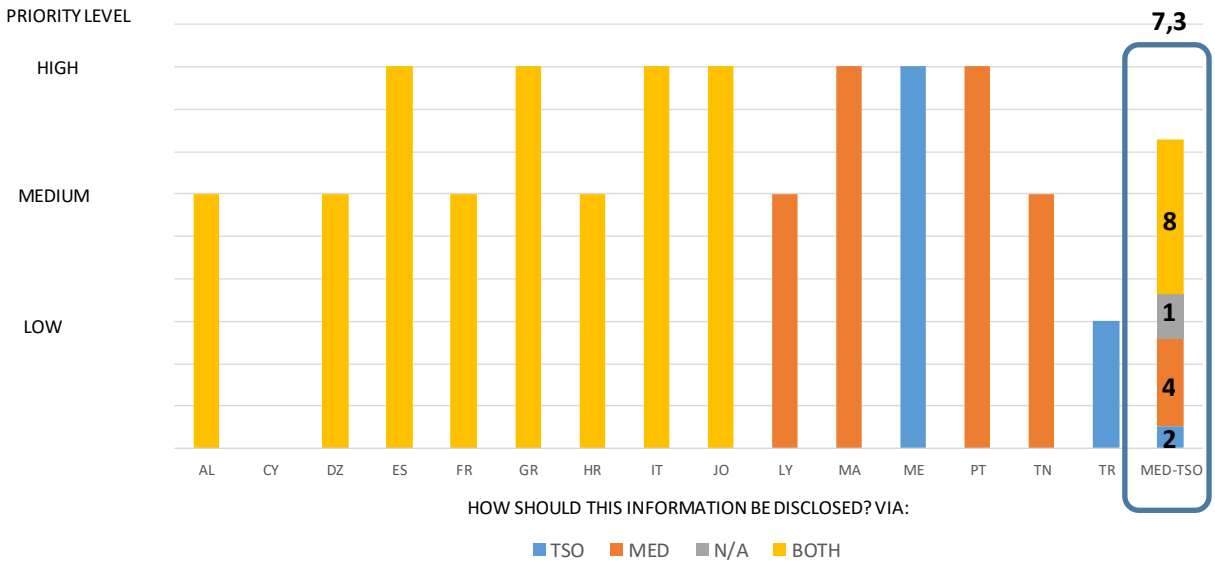


Figure 61. Graph of the priority on disclosing the Use of Interconnection

5.3.4 Forecast capacity – day ahead, month ahead and year ahead

Most of the TSOs consider this information should be published, except TSOC with no current interconnections and consequently no specified transparency level for this type of information. All TSOs think that the priority should be at least medium, and that the information should at least be available at the Med-TSO webpage, except Turkey and Montenegro, that consider it should only be available on their TSO webpage. The average priority is high (7,7 out of 9).

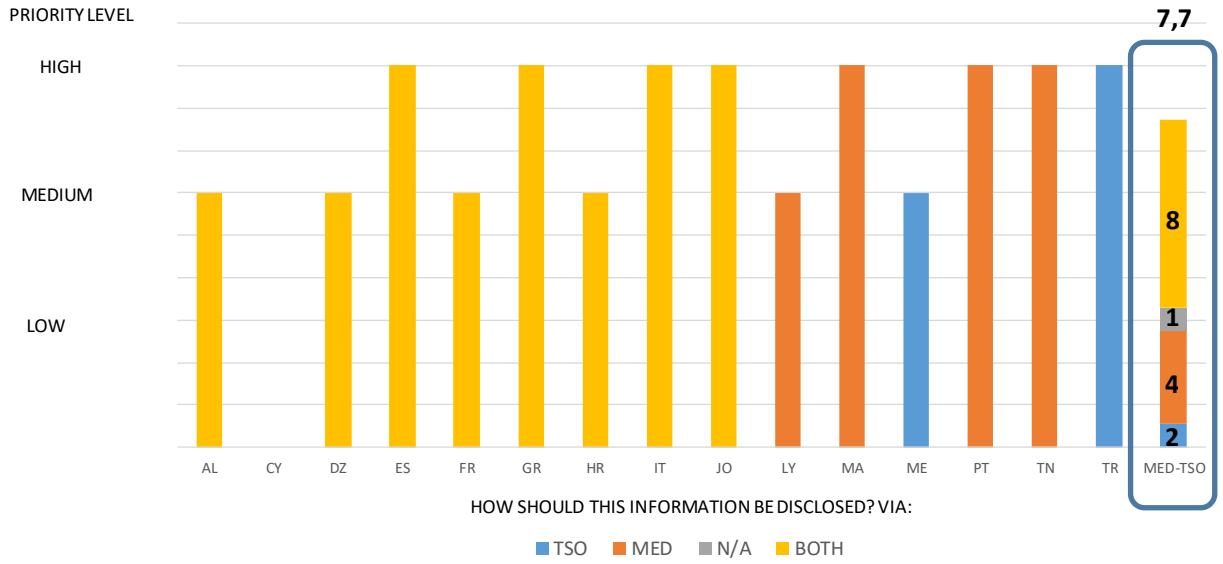


Figure 62. Graph of the priority on disclosing the Forecast Capacity

5.3.5 Information on international exchanges mechanism (i.e. auction)

Almost all TSOs consider this information should be published both on the TSO and the Med-TSO webpage, except TSOC, with no current interconnections and consequently no specified transparency level for this type of information, and NEPCO. The average priority is high (7,4 out of 9).

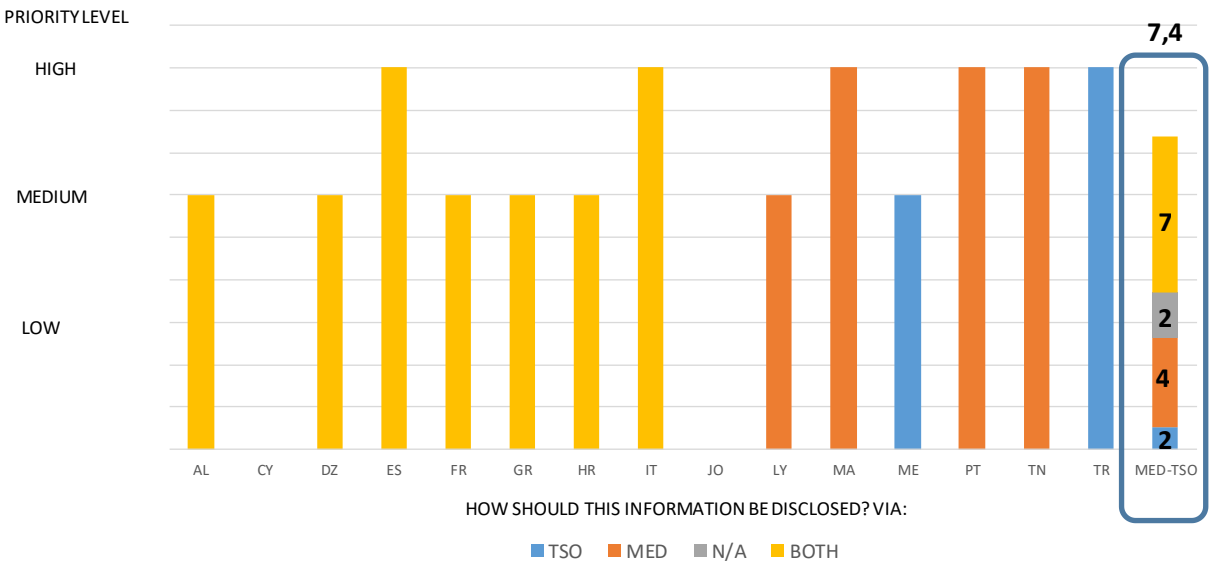


Figure 63. Graph of the priority on disclosing the Information on International Exchanges Mechanism

5.3.6 Congestion Income (allocation mechanisms or tolls)

Almost all TSOs consider this information should be published at least in Med-TSO webpage, except TSOC, with no current interconnections and consequently no specified transparency level for this type of information, and NEPCO. The average priority is medium (6,7 out of 9), as 8 TSOs consider this priority level.

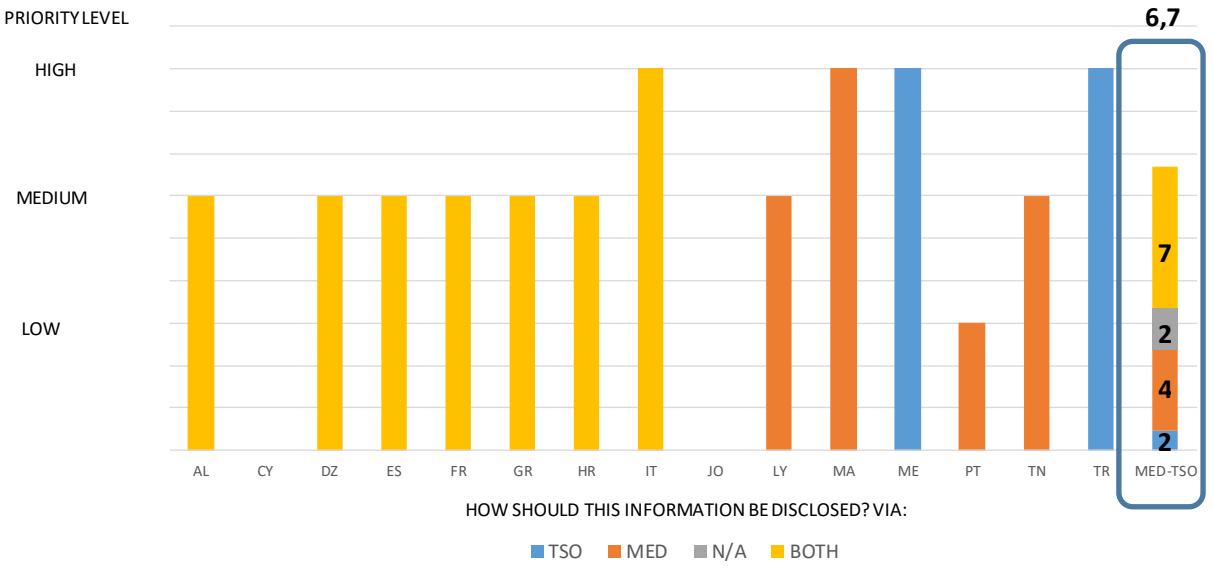


Figure 64. Graph of the priority on disclosing the Congestion Income

5.3.7 Information on balancing reserves (volumes, prices, exchanges)

Almost all TSOs, except NEPCO, consider this information should be published. 11 out of 14 think that the information should at least be available at the Med-TSO webpage. The average priority is medium (6,4 out of 9) as 8 TSOs consider this priority level.

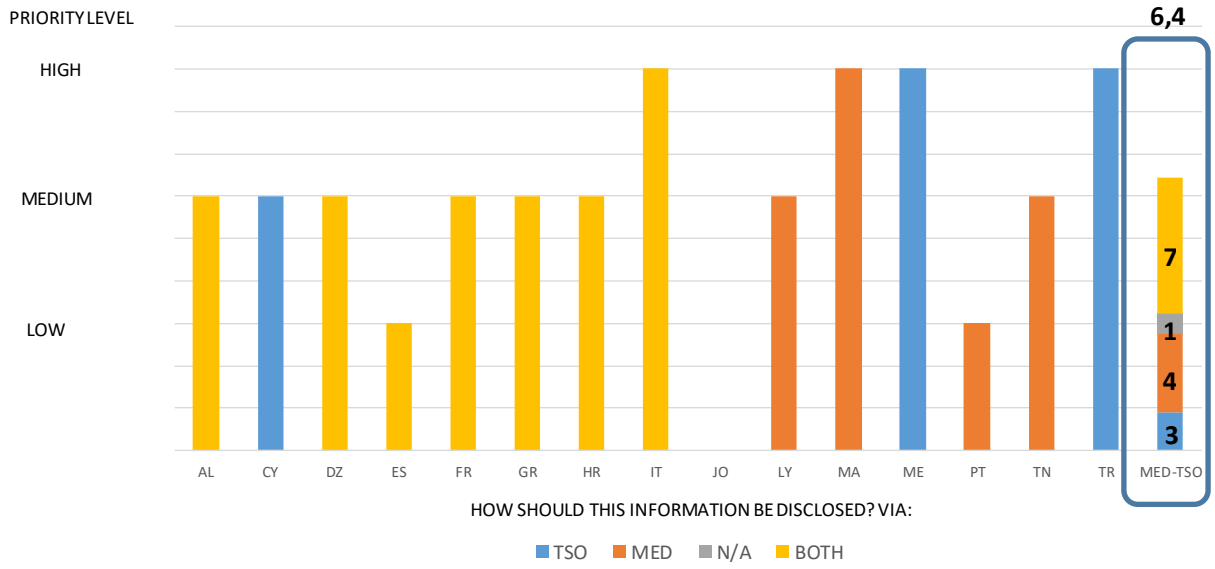


Figure 65. Graph of the priority on disclosing the Information on Balancing Reserves

5.3.8 Information on balancing energies (volumes, prices, imbalances, exchanges)

Almost all TSOs, except NEPCO, consider this information should be published. 11 out of 14 think that the information should at least be available at the Med-TSO webpage. The average priority is medium (6,0 out of 9) as 8 TSOs consider this priority level.

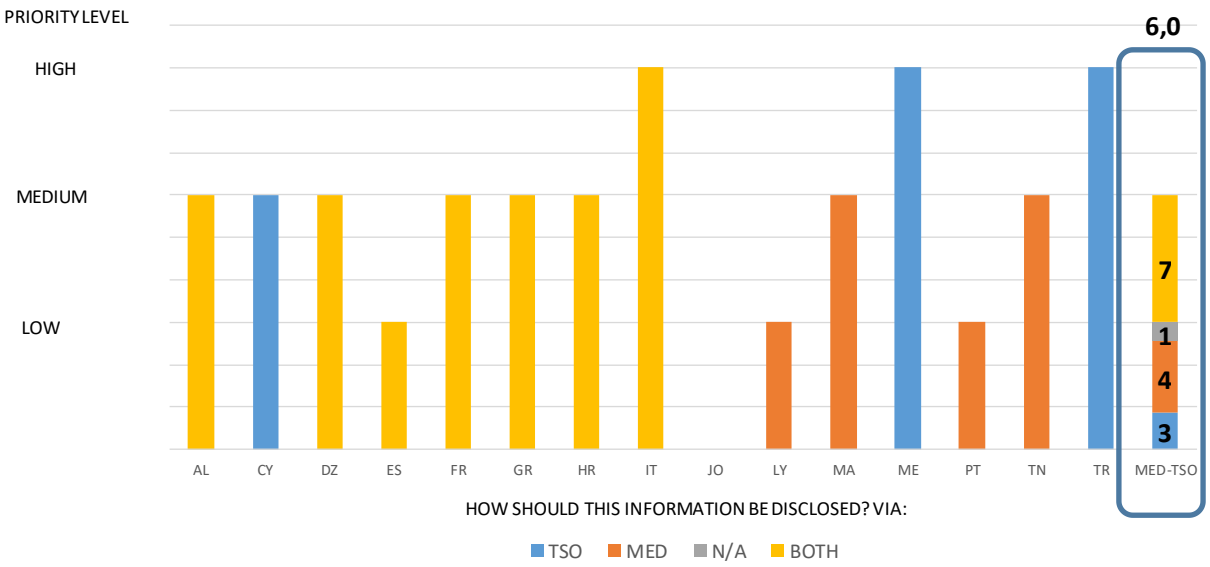


Figure 66. Graph of the priority on disclosing the Information on Balancing Energies

5.3.9 Countertrading and/or re-dispatching (energy and cost)

Only NEPCO and TSOC, with no such mechanisms in place and consequently no specified transparency level for this type of information, consider this information should not be published, but in general the priority is low or medium. The average priority is medium (5,8 out of 9). The preferable format is to be published at least on the Med-TSO webpage, except for Algeria, Turkey, and Montenegro.

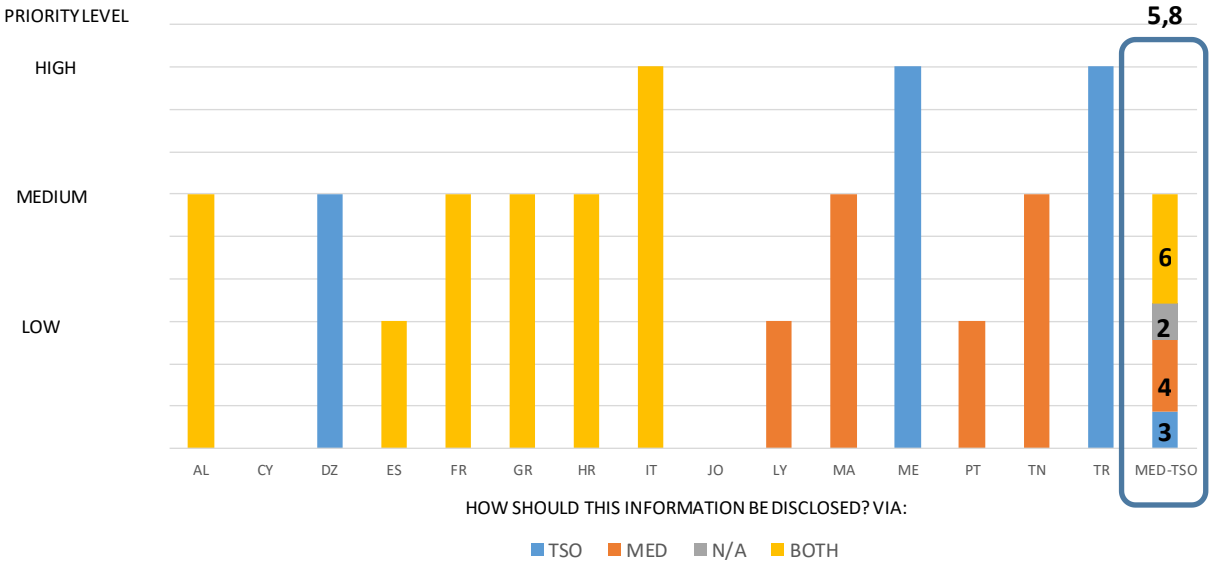


Figure 67. Graph of the priority on disclosing the Countertrading and/or re-dispatching

5.4 Prospective information

5.4.1 Access and connection information (new generation by technology)

Almost all TSOs, except Cyprus, consider this information should be published, but only Greece, Morocco and Jordan with high priority. The average priority is low (5,4 out of 9).

Regarding format to be disclosed, the preferences are rather heterogeneous: 6 TSOs prefer to publish the information in the TSO webpage, 2 in Med-TSO website and 6 in both.

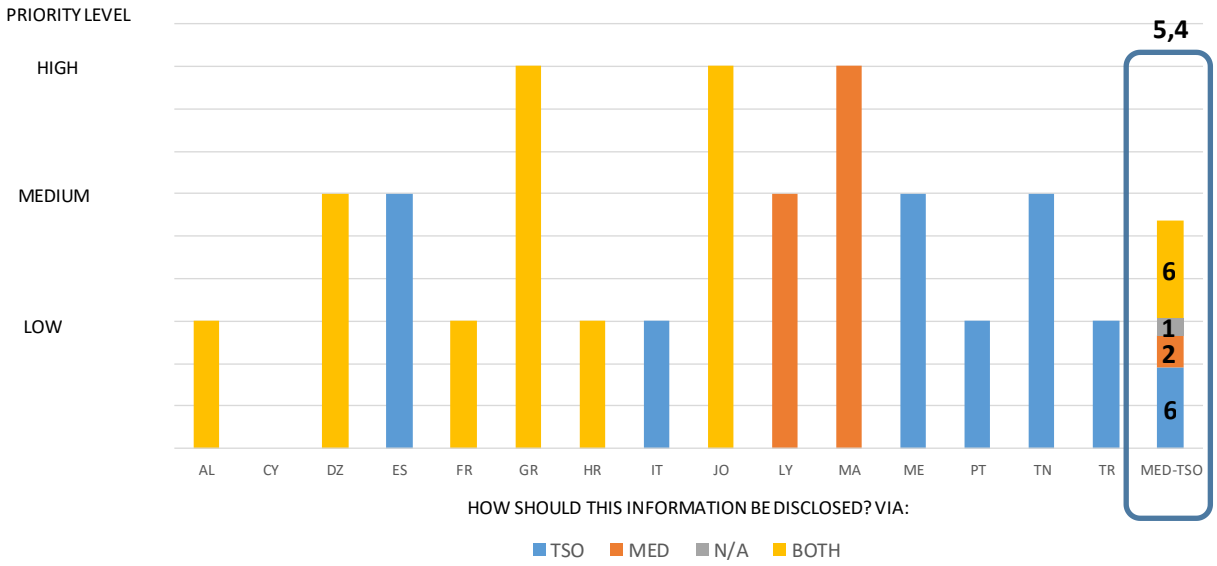


Figure 68. Graph of the priority on disclosing the Access and Connection Information (by technology)

5.4.2 Access and connection information (new generation by node)

Almost all TSOs, except Cyprus, consider this information should be published, but only Greece, Morocco and Jordan with high priority. The average priority is quite low (5,4 out of 9).

Regarding format to be disclosed, the preferences are rather heterogeneous: 7 TSOs prefer to publish the information in the TSO webpage, 1 in Med-TSO website and 6 in both.

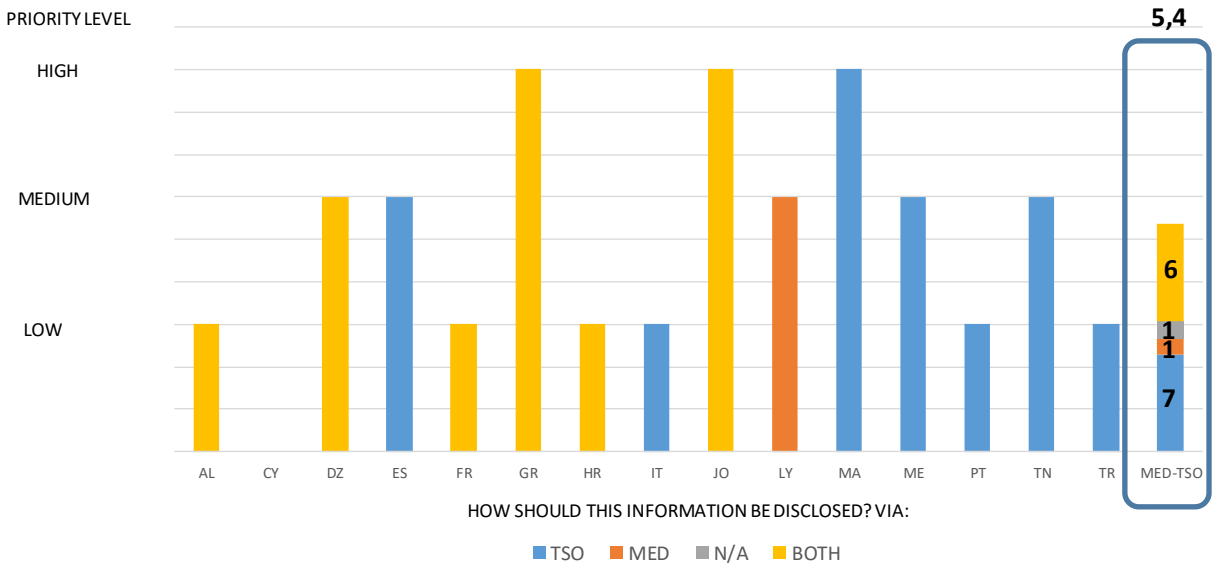


Figure 69. Graph of the priority on disclosing the Access and Connection Information (by node)

5.4.3 Information on congested nodes

Almost all TSOs, except Cyprus, with no current interconnections and consequently no specified transparency level for this type of information, consider this information should be published, but only Jordan with high priority. The average priority is low (4,5 out of 9).

Regarding format to be disclosed, the preferences are rather heterogeneous: 6 TSOs prefer to publish the information in the TSO webpage, 2 in Med-TSO website and 6 in both.

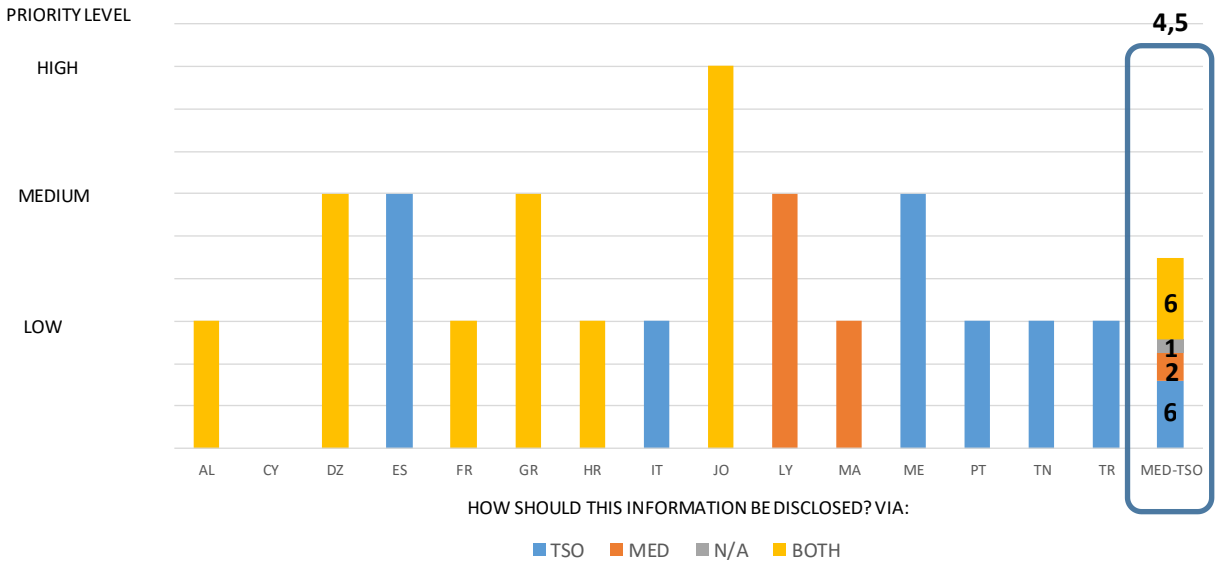


Figure 70. Graph of the priority on disclosing the Information on Congested Nodes

5.4.4 Planning information: National & International Development Plans

Almost all TSOs, except Cyprus, consider this information should be published, in general with high or medium priority. The average priority is medium (6,9 out of 9).

Regarding format to be disclosed, the preferences are rather heterogeneous: 3 TSOs prefer to publish the information in the TSO webpage, 2 in Med-TSO website and 9 in both.

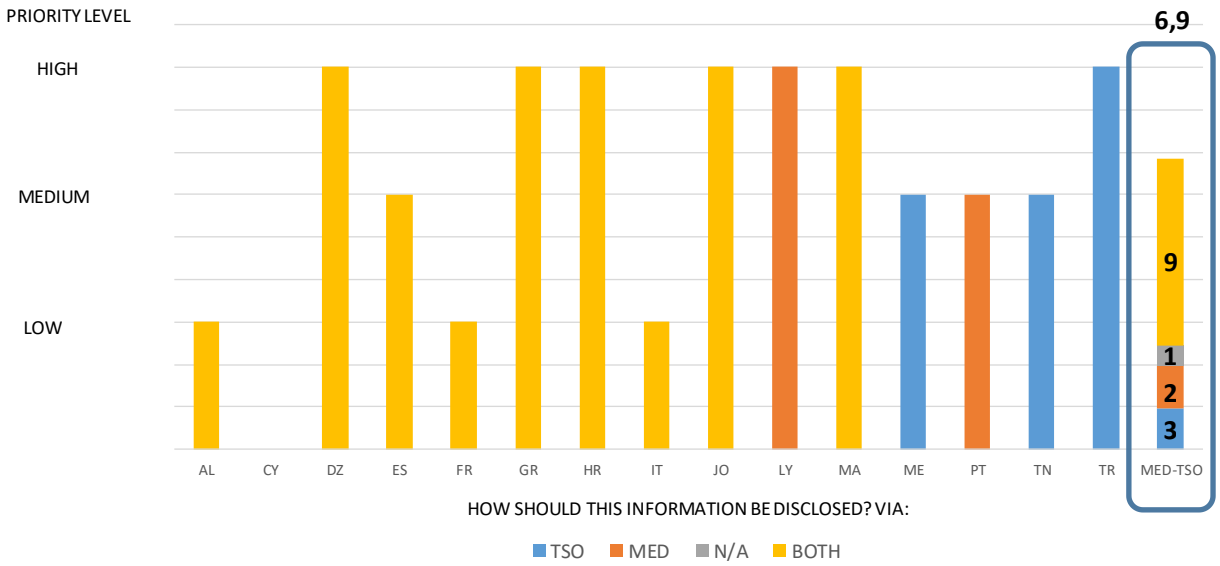


Figure 71. Graph of the priority on disclosing the National & International Development Plans

5.5 Historical data and statistic information

5.5.1 Load data

All the TSOs agree on disclosing this information with a high priority (except Italy, with low priority, and Tunisia and Montenegro, with medium priority). The average priority is high (8,4 out of 9).

The majority (11 out of 15) consider the information should be published at least in Med-TSO website.

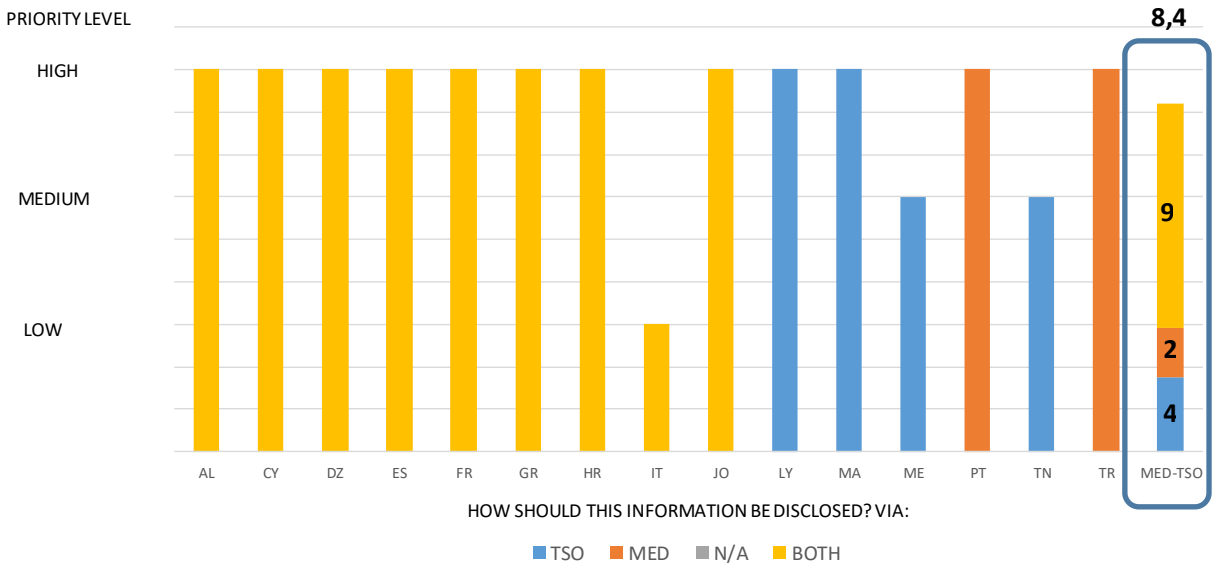


Figure 72. Graph of the priority on disclosing the Load Data

5.5.2 Generation data

All the TSOs agree on disclosing this information with a high priority (except Italy, with low priority, and Tunisia and Montenegro, with medium priority). The average priority is high (8,4 out of 9).

The majority (11 out of 15) consider the information should be published at least in Med-TSO website.

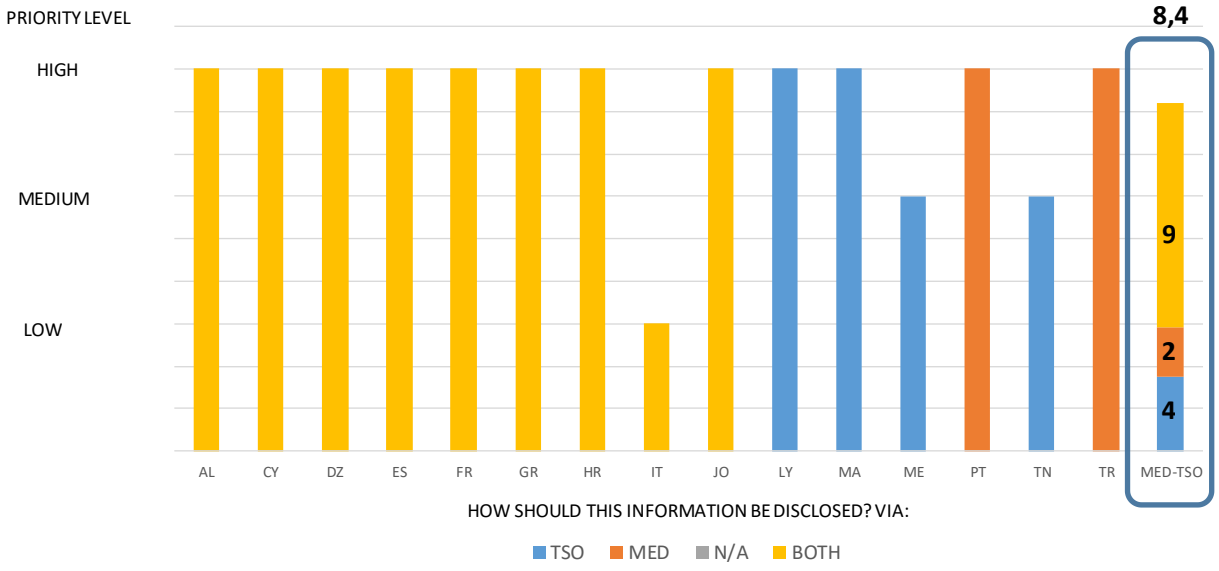


Figure 73. Graph of the priority on disclosing the Generation Data

5.5.3 Market prices

Almost all TSOs consider this information should be made public in the Mediterranean, except Algeria, Libya and Morocco. The average priority is high (7,9 out of 9), as 8 TSOs set this issue as of high priority.

The majority (10 out of 12) consider the information should be published at least in Med-TSO website.

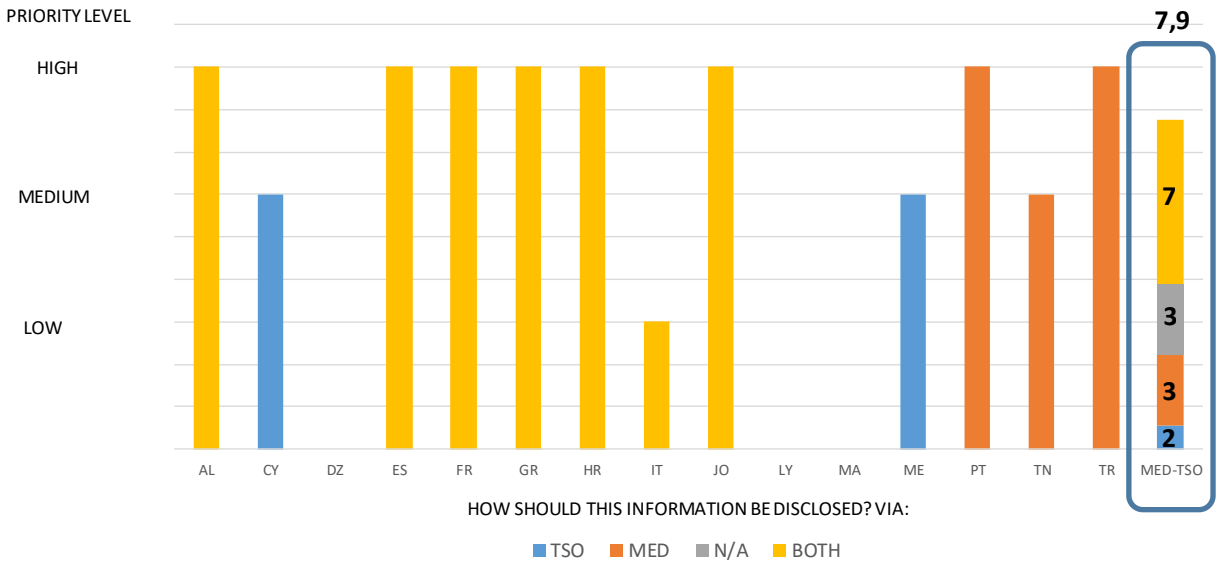


Figure 74. Graph of the priority on disclosing the Market Prices

5.5.4 Interconnection information (capacity, auctions…)

Almost all TSOs consider this information should be published, with the exception of Cyprus with no current interconnections and consequently no specified transparency level for this type of information. The average priority is high (7,8 out of 9), as 9 TSOs set this issue as of high priority.

A majority of 12 out of 14 TSOs consider the information should be published at least in Med-TSO website.

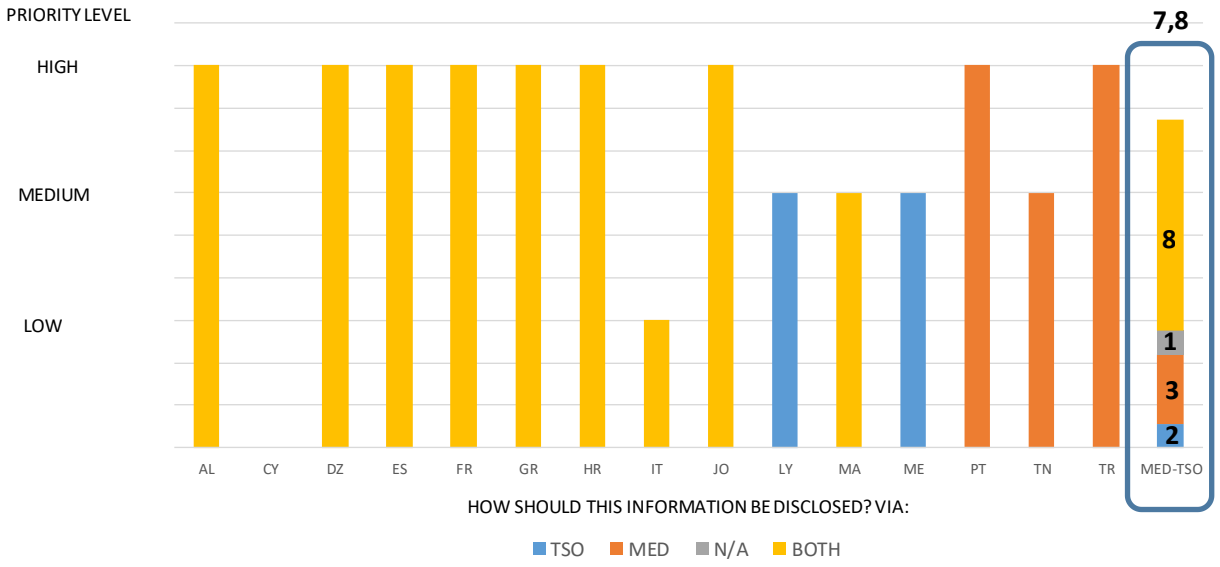


Figure 75. Graph of the priority on disclosing the Interconnection Information

5.6 Conclusions

Based on the results of the survey an average priority for each of the 34 issues included in the survey has been calculated with the 14 answers received from each TSO. The following values have been considered:

Answers	Values
HIGH	9
MEDIUM	6
LOW	3
NO or N/A	0

Figure 76. Description of the value given to each priority level

This average gives the priority level foe each aspect to become transparent in the Mediterranean region, varying from a range of 0 to 9, as shown in the table below. In the following graph the average priority level for the 34 selected issues can be shown.

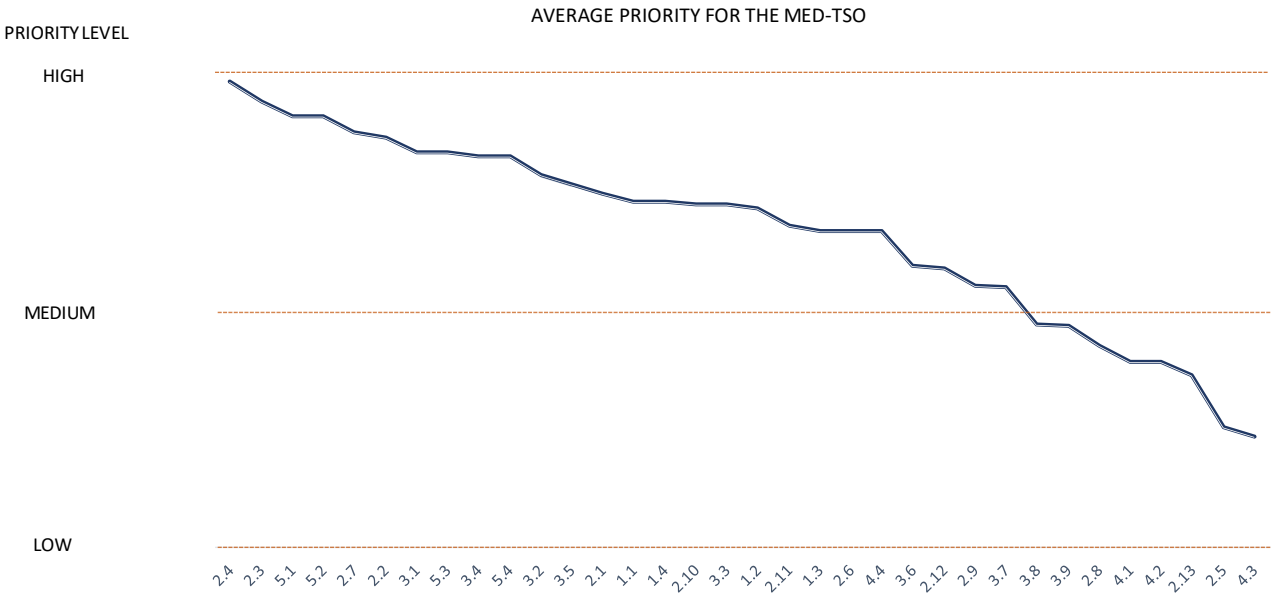


Figure 77. Graph of the priority level for each of the 34 issues

Nr	Issue	Average Priority
1.1	Applicable regulation (national)	7,40
1.2	Applicable regulation (regional, if any)	7,36
1.3	Transmission system description	7,07
1.4	Transmission grid map	7,40
2.1	Generation by technology (real time)	7,50
2.2	Generation forecast (day ahead)	7,93
2.3	Generation forecast for wind and solar	8,36
2.4	Installed capacity by technology	8,60
2.5	Filling Rate of Water Reservoirs and Hydro Storage	4,38
2.6	Load demand (real time)	7,07
2.7	Load demand forecasts (day, month and year ahead)	8,00
2.8	Demand side management mechanism (capacity, activation rules)	5,54
2.9	Forecast Margin Load/Generation	6,23
2.10	Capacity and use of generation units and transmission grid	7,38
2.11	Scheduled outages (transmission grid and generation units)	7,15
2.12	Unplanned outages (transmission grid and generation units	6,64
2.13	Constraints on Generation usage (must-run, limitations, environmental constraint, fuel constraint)	5,20
3.1	Daily and intraday markets	7,75
3.2	Use of the interconnection (programs)	7,71
3.3	Use of the interconnection (real time measures)	7,29
3.4	Forecasted capacity – day ahead, month ahead and year ahead	7,71
3.5	Information on international exchanges mechanism (i.e. auction)	7,38
3.6	Congestion Income (allocation mechanisms or tolls)	6,69
3.7	Information on balancing reserves (volumes, prices, exchanges)	6,43
3.8	Information on balancing energies (volumes, prices, imbalances, exchanges)	6,00
3.9	Countertrading and/or re-dispatching (energy and cost)	5,77
4.1	Access and connection information (new generation by technology)	5,36
4.2	Access and connection information (new generation by node)	5,36
4.3	Information on congested nodes	4,50
4.4	Planning information: National & International Development Plans	6,86
5.1	Load data	8,20
5.2	Generation data	8,20
5.3	Market prices	7,75
5.4	Interconnection information (capacity, auctions …)	7,71

Figure 78. Table of the priority level of each of the 34 issues

6 Proposal of issues to be transparent in Mediterranean power systems

Considering the results of the survey (as detailed in chapters 4 and 5 and summarized below in figures 80 to 84) and the availability of the data in the different power systems (more detailed information in Annex C) the 34 issues have been divided into 3 categories as follows:

A	PROPOSAL OF ISSUES TO BE PUBLISHED IN THE MED-TSO WEBSITE
B	PROPOSAL OF ISSUES TO BE TRANSPARENT IN THE MEDITERRANEAN REGION TO BE MAKE PUBLICALLY AVAILABLE BY EACH TSO
C	ISSUES NOT SELECTED AS TO BE TRANSPARENT IN THE MEDITERRANEAN REGION AT THIS STAGE

Basic information of the power system					
Issue	Transparency of the Issue	Main way to disclose this information	Priority of the Issue	Where it should be disclosed	Cathegory
Applicable regulation (national)	8,2	TSO	7,4	TSO	B
Applicable regulation (regional)	5,0	Multi-TSO	7,4	Med-TSO + TSO/Med-TSO	B
Transmission system description	7,6	TSO	7,1	Med-TSO + TSO	B
Transmission grid map	7,4	TSO	7,4	Med-TSO + TSO	A

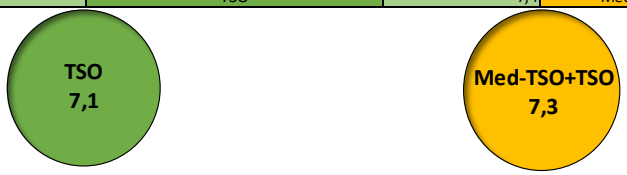


Figure 79. Summary of the survey results for the Basic Information of the Power System.

Power System Performance					
Issue	Transparency of the Issue	Main way to disclose this information	Priority of the Issue	Where it should be disclosed	Cathegory
Generation by technology (real time)	7,0	Multi-TSO	7,5	Med-TSO + TSO	A
Generation forecast (day ahead)	6,8	Multi-TSO	7,9	Med-TSO + TSO/Med-TSO	A
Generation forecast for wind and solar	6,2	Multi-TSO	8,4	Med-TSO + TSO	A
Installed capacity by technology	8,6	Multi-TSO	8,6	Med-TSO + TSO	A
Filling Rate of Water Reservoirs and Hydro Storage	5,2	Multi-TSO	4,4	Med-TSO + TSO	C
Load demand (real time)	6,8	Multi-TSO	7,1	Med-TSO + TSO	A
Load demand forecasts (day, month and year ahead)	7,4	Multi-TSO	8,0	Med-TSO + TSO	A
Demand side management mechanism (capacity, activation rules)	5,8	TSO	5,5	Med-TSO + TSO	C
Forecast Margin Load/Generation	6,4	Report/Multi-TSO	6,2	Med-TSO + TSO	C
Capacity and use of generation units and transmission grid	6,4	Report/Multi-TSO	7,4	TSO	B
Scheduled outages (transmission grid and generation units)	6,8	Report/Multi-TSO	7,2	TSO	B
Unplanned outages (transmission grid and generation units	6,6	Multi-TSO	6,6	TSO	C
Constraints on Generation usage (must-run, limitations, environmental constraint, fuel constraint)	5,4	TSO	5,2	TSO	C

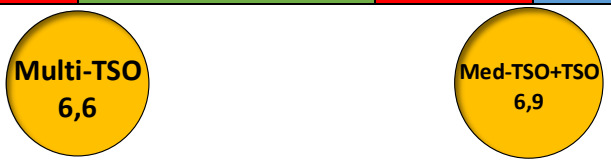


Figure 80. Summary of the survey results for the Power System Performance

Information About Markets					
Issue	Transparency of the Issue	Main way to disclose this information	Priority of the Issue	Where it should be disclosed	Cathegory
Daily and intraday markets	5,6	Multi-TSO	7,8	Med-TSO + TSO	A
Use of the interconnection (programs)	6,6	Multi-TSO	7,7	Med-TSO + TSO	B
Use of the interconnection (real time measures)	5,8	Multi-TSO	7,3	Med-TSO + TSO	B
Forecasted capacity – day ahead, month ahead and year ahead	6,6	Multi-TSO	7,7	Med-TSO + TSO	A
Information on international exchanges mechanism (i.e. auction)	6,6	Multi-TSO	7,4	Med-TSO + TSO	B
Congestion Income (allocation mechanisms or tolls)	5,4	Report/Multi-TSO	6,7	Med-TSO + TSO	C
Information on balancing reserves (volumes, prices, exchanges)	6,0	Multi-TSO	6,4	Med-TSO + TSO	C
Information on balancing energies (volumes, prices, imbalances, exchanges)	5,4	Multi-TSO	6,0	Med-TSO + TSO	C
Countertrading and/or re-dispatching (energy and cost)	4,8	Multi-TSO	5,8	Med-TSO + TSO	C

Figure 81. Summary of the survey results for the Information about Markets

Prospective Information					
Issue	Transparency of the Issue	Main way to disclose this information	Priority of the Issue	Where it should be disclosed	Cathegory
Access and connection information (new generation by technology)	5,4	Report	7,8	Med-TSO + TSO/TSO	C
Access and connection information (new generation by node)	5,4	Report	7,7	TSO	C
Information on congested nodes	4,5	Report	7,4	Med-TSO + TSO/TSO	C
Planning information: National & International Development Plans	6,9	Report	7,7	Med-TSO + TSO	B

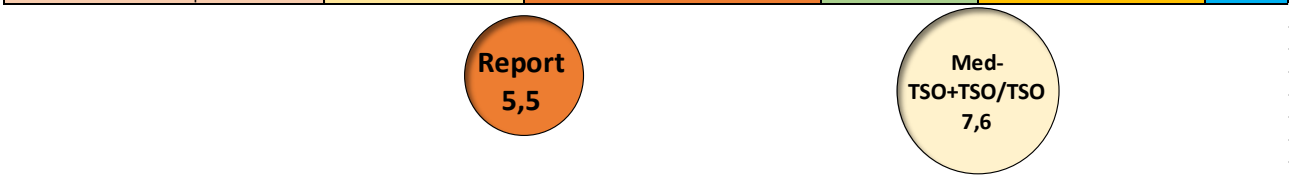


Figure 82. Summary of the survey results for the Prospective Information

Historical Data and Statistic Information					
Issue	Transparency of the Issue	Main way to disclose this information	Priority of the Issue	Where it should be disclosed	Cathegory
Load data	8,2	Multi-TSO	7,8	Med-TSO + TSO	A
Generation data	8,2	Multi-TSO	7,7	Med-TSO + TSO	A
Market prices	7,8	Multi-TSO	7,4	Med-TSO + TSO	A
Interconnection information (capacity, auctions ...)	7,7	Multi-TSO	7,7	Med-TSO + TSO	B

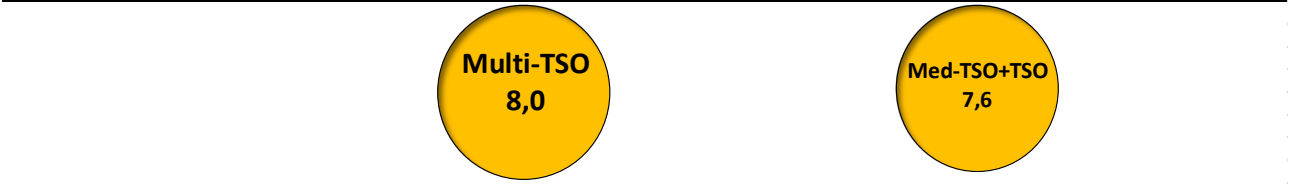
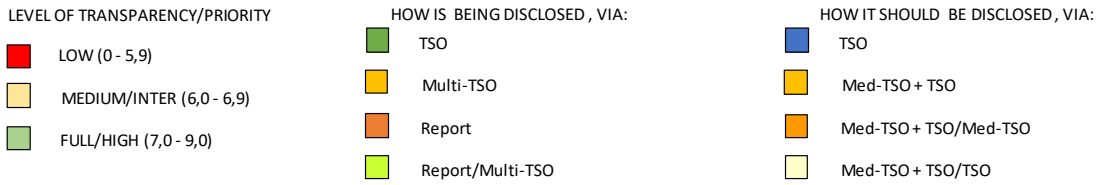


Figure 83. Summary of the survey results for the Historical Data and Statistic Information



As detailed before, from the 34 initial issues, 13 have been included in category A (in principle all those issues with an average priority higher than 7,75 but also some issues that didn´t reach this value but that are already published or that have been considered necessary due to previous experience); and 9 more in category B (in principle all those issues not included in category A and with an average priority higher than 7).

The issues to be published in Med-TSO website (category A) have been as well divided in 3 time horizons in which the data should be available:

- Short-term. Issues to be published in Med-TSO website during 2020 with data from 2019.
- Medium-term horizon. In most cases IT developments is needed or at least recommended for effienciency purposes. In addition, availability of data needs to be adressed with some TSOs, specially in what concerns real time data and usage of the interconnections.
- Medium-long term horizon. Issues related with market prices, which nowadays is not available in many national power systems.

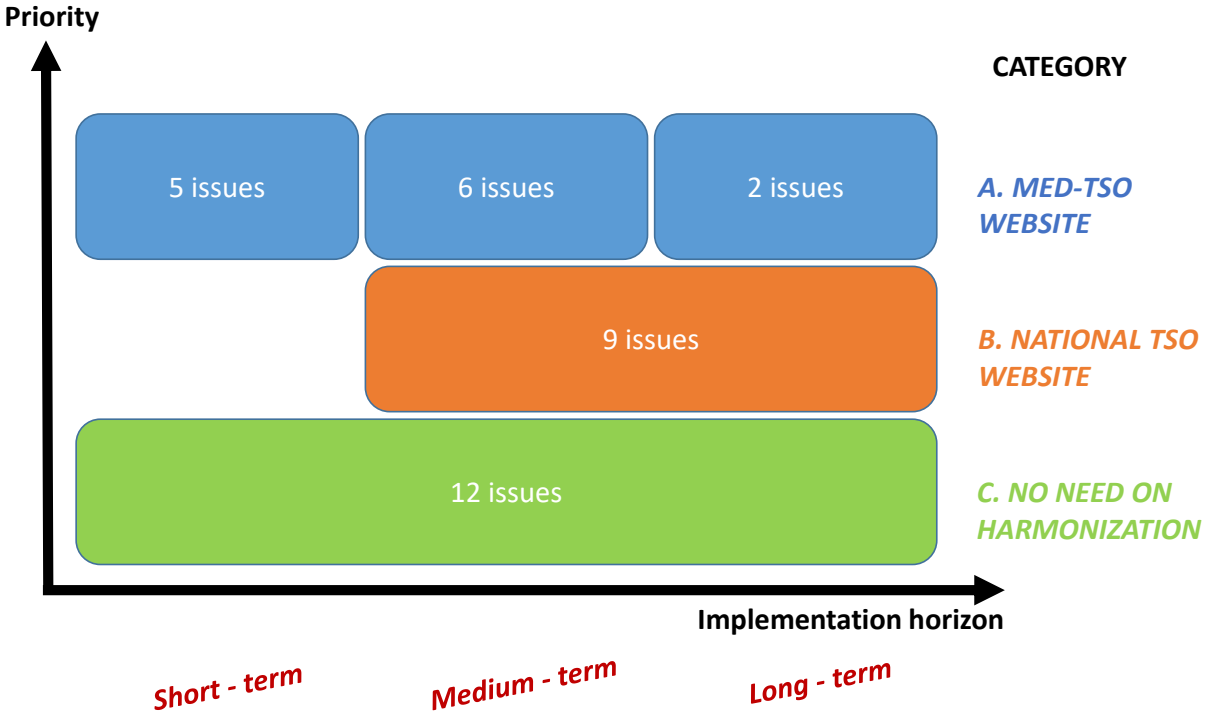


Figure 84. Final proposal of issues to be transparent in the Mediterranean region

The final proposal of the 13 issues to be published in Med-TSO website is the following:

1. In the **short-term** with yearly updates:
   - Transmission grid map of the national power system, which is already shared in Med-TSO website.
   - Data of installed capacity by technology in the national power system on the 31st December of the previous year to be provided at the beginning of each year.
   - Historial data on load demand to be provided at the beginning of each year with the annual and monthly demand in the national power system.
   - Historical data on generation to be provided at the beginning of each year with the annual and monthly generation data by technology in the national power system.
   - Historical data on international exchanges (total net exchanges as the sum of imports and exports) in each interconnection (border), not in each interconnector (line) to be provided at the beginning of each year with the annual and monthly exchanges.

   All TSOs should agree on the generation technologies in which to divide the data. As a first proposal, the selection used for the market studies could be considered.

2. In the **medium-term**. Increase the frequency of providing updates for the 5 issues mentioned above from yearly to monthly. In addition the followiing issues, for which IT development is required (or at least it´s recommended for efficiency purposes) and in some cases availability of data needs to be addressed with some TSOs, should also be published in Med-TSO website:
   - Real time generation data by technology. Time stamp should be agreed.
   - Real time load demand data. Time stamp should be agred.
   - Hourly total generation forecast for the day D to be provided the day before (D-1).
   - Hourly load demand forecast for the day D to be provided the day before (D-1).
   - Hourly forecast for wind and solar for the day D to be provided the day before (D-1).
   - Horuly capacity forecast on each interconnection to be provided in 3 different timeframes:
     - At the end of the year Y-1: for the 8.760 hours of the year Y.
     - At the end of the month M-1: for all the hours of the month M.
     - At the end of the day D-1: for all the hours of the day D.

3. In the **long term.**
   - Day-ahead and intraday hourly market prices. To be provided each hour for the hour before as a final expectation.
   - Statistical data from day-ahead and intraday hourly market prices. To be provided each month with the data from the month before.

Horizon	Nr	Issue	Definition or Comments
Step 1 corresponds to Mediterranean Project II (2019 data to be published in mid-2020). In the short-term yearly updates. In the medium term monthly (or even daily) updates could be foreseen.	1.4	Transmission grid map	Already shared in website. Time for update: need to be agreed
	2.4	Installed capacity by technology	Data to be provided: installed capacity by technology until the 31st December of the previous year (Y-1) Time for the provision of data: at the beginning of each year Y Need to agree on technologies.
	5.1	Load data	Data to be provided: monthly demand and total final demand of the power system until the 31st December of the previous year (Y-1) Time for the provision of data: at the beginning of each year Y
	5.2	Generation data	Data to be provided: monthly generation by technology and total final generation by technology until the 31st December of the previous year (Y-1) Time for the provision of data: at the beginning of each year Y
	5.4	Interconnection information (capacity, auctions ...)	Data to be provided: monthly exchanges in each interconnection (border) and total net exchanges (sum of import and export) in each interconnection until the 31st December of the previous year (Y-1) Time for the provision of data: at the beginning of each year Y
Step 2 (medium term)	2.1	Generation by technology (real time)	Data to be provided: Real time generation measures by technology IT development needed. Need to agree on technologies.
	2.2	Generation forecast (day ahead)	Data to be provided: Hourly generation forecast of day D Time for the provisionof data: the day before (D-1) IT development recommended
	2.3	Generation forecast for wind and solar	Data to be provided: Hourly forecast for wind and solar (separately) of day D Time for the provision of data: the day before (D-1) IT development recommended
	2.6	Load demand (real time)	Data to be provided: Real time demand measures IT development needed.
	2.7	Load demand forecasts (day, month and year ahead)	Data to be provided: Hourly demand forecast of day D Time for the provision of data: the day before (D-1) IT development recommended
	3.4	Forecasted capacity – day ahead, month ahead and year ahead	Data to be provided: Hourly forecast of the capacity in each interconnection (border) Time for the provision of data: end of the year before (Y-1) for the 8.760 hours of the following year. Time for the update of data: the month before (M-1) for the hours of the following month and the day before (D-1) for the 24 hours of the following day. In both cases, when more accurate value is available. IT development recommended
Step 3 (medium-long term)	3.1	Daily and intraday markets	Data to be provided: hourly daily and intraday markets prices of the hour before (h-1) Time for the provision of data: each hour (h) IT development needed.
	5.3	Market prices	Data to be provided: Statistical data (to be agreed) Time for the provision of data: each month

Figure 85. Summary of the proposal of issues to be published on Med-TSO website

The 9 issues proposed to be transparent through publication in each national TSO webpage are summarized below:

- Applicable national regulation.
- Applicable international regulation (if any).
- Transmission system description: number of substations, km of lines (by voltage level).
- Capacity of the transmission units.
- Scheduled outages (both from generation and transmission units).
- Hourly programs in each interconnection.
- Real time data in each interconnection.
- Information on capacity auctions (or any other mechanism used to allocate capacity).
- National Development Plans (and Regional, if any).

7 Annex A: Transparency survey model.

Technical Committee 2: Regulation & Institutions. Task 2.3. Transparency Survey

The objective of this document is to collect and share information between Med-TSO TC2 members about transparency issues in order to select a set of information that could be harmonized in the Mediterranean. For this aim the survey should be completed by all TC2 members with the national situation in each national power system.

As transparency aspects not only the issues covered under European Regulation 543/2013 should be considered but also other aspects such as system development of access and connection issues. In general all information that is made public by the TSO could be considered under the "transparency umbrella".

Please complete/mark all the questions included below.

TSO: | Country: | Date:

A. Do you have any restriction to make public information about your power system? (Yes/No)

If "Yes" please explain below.

B. Why information is made public by your TSO? By law? (Yes/No/Other)

If "Yes" or "Other" please detail below the applicable national or international regulation.

C. For each of the issues included in the annex please detail the level of transparency in your power system. Consider the following levels:

- Full transparency: Available to the public in general. (*FULL*)
- Intermediate transparency: Available for stakeholders. (*INTER*)
- Low transparency: Available only to Regulators or Administration. (*LOW*)
- No transparency: Not available. (NO*)*

D. For each of the issues included in the annex please detail how your TSO makes the information public in your country, considering the following options (more than one option could be included):

- Periodic reports. (*REPORT*)
- TSO webpage. (*TSO)*
- Multilateral TSO webpage (i.e.: ENTSO-E, COMELEC, IESOE …). (*MULTI-TSO*)

E. According to your TSO view, for each of the issues included in the "Annex", please mark with a "*YES*" those that your TSO consider should be transparent in the Mediterranean region.

F. According to your TSO view, for those issues marked in question "E", please select the priority level of importance (*HIGH*/*MEDIUM*/LOW*)*

G. According to your TSO view, for those issues marked in question "E", please select how each of them should be public, considering the following options (more than one option could be included):

- Dedicated section in Med-TSO webpage, including potential regional reports that could be elaborated by Med-TSO. (*MED-TSO*)
- Each national TSO webpage, including potential national reports that could be elaborated by each TSO. (*TSO*)

H. Please include any additional issue not included in the annex that you consider should be harmonized in the Mediterranean region.

I. Please include any additional aspect you may consider relevant.

NOTE. When fulfilling the Annex (questions C to G) please use only the words showed in brackets in the possible options for each question (i.e. for question C use only the words FULL, INTER, LOW or NO).

ANNEX: LIST OF POTENTIAL ISSUES

1. BASIC INFORMATION OF THE POWER SYSTEM

		C	D	E	F	G
1.1	Applicable regulation (national)					
1.2	Applicable regulation (regional, if any)					
1.3	Transmission system description					
1.4	Transmission grid map					

2. POWER SYSTEM PERFORMANCE (OPERATION ASPECTS)

		C	D	E	F	G
2.1	Generation by technology (real time)					
2.2	Generation forecast (day ahead)					
2.3	Generation forecast for wind and solar					
2.4	Installed capacity by technology					
2.5	Filling Rate of Water Reservoirs and Hydro Storage					
2.6	Load demand (real time)					
2.7	Load demand forecasts (day, month and year ahead)					
2.8	Demand side management mechanism (capacity, activation rules)					
2.9	Forecast Margin Load/Generation					
2.10	Capacity and use of generation units and transmission grid					
2.11	Scheduled outages (transmission grid and generation units)					
2.12	Unplanned outages (transmission grid and generation units					
2.13	Constraints on Generation usage (must-run, limitations, environmental constraint, fuel constraint)					

3. INFORMATION ABOUT MARKETS (INCLUDING INTERCONNECTION MANAGEMENT AND AVAILABLE CAPACITY)

		C	D	E	F	G
3.1	Daily and intraday markets					
3.2	Use of the interconnection (programs)					
3.3	Use of the interconnection (real time measures)					
3.4	Forecasted capacity – day ahead, month ahead and year ahead					
3.5	Information on international exchanges mechanism (i.e. auction)					
3.6	Congestion Income (allocation mechanisms or tolls)					
3.7	Information on balancing reserves (volumes, prices, exchanges)					
3.8	Information on balancing energies (volumes, prices, imbalances, exchanges)					
3.9	Countertrading and/or re-dispatching (energy and cost)					

4. PROSPECTIVE INFORMATION

		C	D	E	F	G
4.1	Access and connection information (new generation by technology)					
4.2	Access and connection information (new generation by node)					
4.3	Information on congested nodes					
4.4	Planning information: National & International Development Plans					

5. HISTORICAL DATA AND STATISTIC INFORMATION

		C	D	E	F	G
5.1	Load data					
5.2	Generation data					
5.3	Market prices					
5.4	Interconnection information (capacity, auctions …)					

8 Annex B. Answers to questions A and B.

A. Do you have any restriction to disclose information about your power system? (Yes/No) If "Yes" please explain below.		
AL	Yes	In order to protect free competition, OST is required to ensure the confidentiality of "commercially sensitive information" and "the principle of competition" (under the articles 54 and 64 of the "Law 43/2015 on "Power Sector" and the article 7 of the Grid Code provisions) The Transmission System Operator, respecting in any case the provisions of the law, maintains the confidentiality of the sensitive commercial information provided during the exercise of the activity and prevents the dissemination of information about its activity in a discriminatory manner in order to create a trade advantage to another party. According to the Grid Code provisions, some data may be disclosure only through agreements between parties. In accordance with the Transmission Network Code, OST will request and receive information from Transmission Grid Users about their business activities (generation, distribution, supply or trade or sensitive commercial data) while respecting the principles of confidentiality. OST do not give and do not publish information to third Parties without the written consent of the information owner, except as required by provisions of Transmission Network Code.
CY	Yes	1) Commercial sensitive information are not allowed to be published. 2) TYNDP is only submitted to CERA and it is not published.
DZ	Yes	The disclosure of information and data concerning the users of the electricity network (producers, network operator, distributors, market operator, customers, etc.) is not governed by a specific law or regulation. Nevertheless, provisions of the law on Electricity and its implementing regulations specify that the operator of the power system, the network operators and the Commission of Regulation of Electricity and Gas are required to comply with the requirements regarding the confidentiality of sensitive information and data received from electricity network users. In addition, as the conditions for setting up a national electricity market have not yet been met, the Commission of Regulation ensures the confidentiality of commercially sensitive information, in accordance with the legal and regulatory provisions in force.
ES	Yes	Yes, in Operational Procedure 9 we have limitations to disclose information from third parties. Some limitations also related with disclose of information from critical infrastructures (Art. 10. 4 of Reg. (EU) 543/2013)
FR	Yes	In order to protect free competition, RTE is required to ensure the confidentiality of some industrial information that is considered under French law to be "commercially sensitive information" (CSI). Once this data has been aggregated, in compliance with statistical confidentiality for CSI and the standards set forth by the CNIL and G29 for personal information, RTE can and must, under some circumstances, make that data public. In carrying out its public service missions, RTE must comply with legal requirements governing public data. This legal framework was recently revised by the so called "Digital Republic" Act, which aims to promote the openness by default of public databases. For RTE, the framework applies to: - Personal data and commercially sensitive information aggregated. - Administrative and environmental data and some scientific data. In the end, RTE is affected little, if at all, by this section of the consultation on the location of data, since the data it manages is mostly covered by regulatory frameworks governing personal and public information.
GR	Yes	Disclosure of Information related to certain users of the power system which is commercial in nature and, if disclosed, is likely to influence the applicable market conditions (commercially sensitive information) is not allowed. Also non-transmission information provided to IPTO by users connected to the grid (generation, distribution or consumption) shouldn't be disclosed. IPTO performs certain aggregations to such data before making it public, with the aim that disclosed information doesn't point to specific users.
HR	Yes	Role of HOPS as public service provider imposes obligation and restrictions for discloser of information governing public data.

A. Do you have any restriction to disclose information about your power system? (Yes/No) If "Yes" please explain below.		
		Obligation/restriction for discloser of information are defined by law, secondary legislation, or EU legislations (directives and guidelines)…
IT	No	We have no restrictions with regard to the date required by the Transparency Regulation. Other data is subject to ad-hoc assessments of the data sensitivity.
JO	No	We don't have any restriction to disclose information about technical information.
LY	Yes	The restriction means there is always need permission from GECOL top management or the group team members in an official meeting for using GECOL network data. Regulator has not been built yet for commercial issued and regulation only international regulations or agreement between counties are used.
MA	Yes	There is no special law that restricts power system information disclosure
ME	Yes	Regulations that influence publication of data: Rules on keeping confidentiality commercially sensitive information used by system operators; Law on secrecy of data; Law on Personal Data Protection.
PT	Yes	As a TSO, providing a public service under a concession granted by the Portuguese state, REN must comply with all the rules and regulations regarding information disclosure. In general, there are no significant restrictions on disclosing aggregate information (technical and commercial). For most data, the publication is in fact mandatory. However, in order to ensure an effective market competitiveness, the local regulatory framework establishes rules for dealing with commercially sensitive information, including disclosure restrictions. Data can be classified as commercially sensitive during a limited period or permanently.
TN	Yes	In general, there are no restrictions to disclose information but some exceptions may exist for reasons of confidentiality which needs a formal request with explanation on the use of this information.
TR	Yes	TEIAS system data and TEIAS Master Plan have restriction to disclose information. These information can be shared in the direction of TEIAS management.

B. Is disclosure of information by your TSO imposed by law? (Yes/No/Other). If "Yes" or "Other" please detail below the applicable national or international regulation.		
AL	Yes	• Directive 2003/98/CE modified by the Directive 2013/37/UE of the European Parliament concerning the re-use of public sector information (PSI). • Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity. • Directive 2004/18 / EC of the European Parliament and of the Council, of 31 March 2004 concerning coordination of procurement procedures for the award of public contracts for works, supplies and services, • REGULATION (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity • COMMISSION REGULATION (EU) No 543/2013 of 14 June 2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) No 714/2009 of the European Parliament and of the Council • The Albanian Law Nr.9121, 28.7.2003 "For the protection of competition" • The Albanian Law Nr.125/2013 on "Concessions and public private partnership" • The Albanian Grid Code • Data are provided on demand and through agreements • Several Nondisclosure Agreements which OST has entered
CY	Yes	1) Law N. 122(I)/2003 2) Transmission and Distribution Rules 3) Trading and Settlement Rules 4) EU directives adopted by Cyprus legislation
DZ	Yes	Law N° 02-01 of February 5, 2002 on Electricity and Gas Distribution by pipeline. Order of February 21, 2008 laying down the technical rules for connection to the electricity transmission network and the rules of conduct for the electrical system. Executive Decree N° 07-293 of September 26, 2007 laying down the terms of supply and access for third parties to the transmission and distribution networks for electricity and gas. Executive Decree N° 08-114 of April 9, 2008 laying down the procedures for the award and withdrawal of electricity and gas distribution concessions and the specifications related to the rights and obligations of the concessionaire.
ES	Yes	At European level Reg. (EU) 543/2013 and REMIT. At national level Operational Procedure 9.
FR	Yes	• Directive 2003/98/CE modified by the Directive 2013/37/UE of the European Parliament concerning the re-use of public sector information (PSI) • Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity • REGULATION (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity o COMMISSION REGULATION (EU) No 543/2013 of 14 June 2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) No 714/2009 of the European Parliament and of the Council • REMIT REGULATION (EU) No 1227/2011 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 October 2011 on wholesale energy market integrity and transparency o COMMISSION IMPLEMENTING REGULATION (EU) No 1348/2014 of 17 December 2014 on data reporting implementing Article 8(2) and Article 8(6) of Regulation (EU) No 1227/2011 of the European Parliament and of the Council on wholesale energy market integrity and transparency • Directive 2007/2/CE of the European Parliament (INSPIRE) concerning geographic information infrastructure • The French Law of 17 July of 1978 affirmed the freedom of access to administrative documents o Data are provided on demand • French Digital Republic Act n° 2016-1321 from 7/10/2016 o Conditions changed a lot. Data are available on open data.

B. Is disclosure of information by your TSO imposed by law? (Yes/No/Other). If "Yes" or "Other" please detail below the applicable national or international regulation.		
GR	Yes	According to its mission IPTO is obliged to comply with the following policies in what concerns disclosure of information: 1. Information classification Policy 2. Publications and Notifications Policy based on the following EU and National Regulatory framework: • European Regulation: o Directive 2009/72/EC on common rules for the internal market in electricity o Directive 95/46/EC on the protection of information (with existing amendments) o REGULATION (EC) No 714/2009 on conditions for access to the network for cross-border exchanges in electricity o Directive 2007/2/EC concerning geographic information infrastructure o REGULATION (EC) 2017/1485 laying down guidelines for the operation of the power transmission system o REGULATION (EC) No 543/2013 on submission and publication of data in electricity markets • National Law: o 2472/1997 on protection of individuals with regard to the processing of personal data (with existing amendments) o 3144/2003 on social dialogue for the promotion of employment and social protection and other provisions o 3468/2006 on Production of electricity from renewable energy sources and cogeneration of high efficiency electricity and heat and other provisions o 3851/2010 on accelerating the development of RES for the confrontation of climate change and other provisions on issues of responsibility of the Ministry of Environment Energy and Climate Change o 4001/2011 on the operation of energy markets for electricity and gas, for research, production and networks of hydrocarbon transmission and other arrangements o 4389/2016 on urgent provisions for the implementation of the Agreement on budgetary objectives and structural reforms and other provisions • Other: o Grid Code o Power Exchange Code for Electricity o IPTO Code of Conduct o Regulator's Decision 475/2017 on the final certification of IPTO as a split-ownership transmission system operator as defined in articles 9 and 11 of Directive 2009/72/EC o Regulator's Decision 76/2007 for the publication of data on Power Exchange for Electricity o Transparency Report, prepared by the Regulators' Group of the European Regional Electricity Initiative for South and Central Europe (RCC/ERI/CSE) of the group of European regulators for the Electricity and gas (ERGEG), with a final start date of full implementation on 1 January 2010.
HR	Yes	EU legislation: • Directive 2003/98/CE modified by the Directive 2013/37/UE of the European Parliament concerning the re-use of public sector information (PSI) • Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity • REGULATION (EC) No 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity o COMMISSION REGULATION (EU) No 543/2013 of 14 June 2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) No 714/2009 of the European Parliament and of the Council • REMIT REGULATION (EU) No 1227/2011 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 25 October 2011 on wholesale energy market integrity and transparency o COMMISSION IMPLEMENTING REGULATION (EU) No 1348/2014 of 17 December 2014 on data reporting implementing Article 8(2) and Article 8(6) of Regulation (EU) No 1227/2011 of the European Parliament and of the Council on wholesale energy market integrity and transparency • Directive 2007/2/CE of the European Parliament (INSPIRE) concerning geographic information infrastructure

B. Is disclosure of information by your TSO imposed by law? (Yes/No/Other). If "Yes" or "Other" please detail below the applicable national or international regulation.		
		Under Croatian law: • Act of Protection on Data Security (OG 79/07, OG 86/12) • Act on the Right of Access to Information (OG 25/13, OG 85/15) • Rules on confidential information (HOPS's internal Rules according to relevant national legislation 1.8.2014.) • Electricity market Act (OG 22/2013, OG 102/2015), Art. 9
IT	Yes	EU Regulation n. 543/2013 (so called 'Transparency Regulation'); EU Regulation n. 1227/2011 (Regulation on Market Integrity and Transparency, so called REMIT); EU Regulation n. 1348/2015 (So called REMIT Implementing Regulation)
JO	Yes	By the low we should disclose some of this information and should be available. As annual report performance indicators.
LY	No	There is no special law in Libya that enforce GECOL to disclose information. Conversely, there is general statement from GECOL top management to not generalize the information only after tacking a permission from the owner.
MA	No	Currently there is no special law that imposes to ONEE to disclose information. However, this information is already published by the TSO in his website and any information can be delivered upon request. The exchange of information will be formalized starting from this year 2019 through the implementation of the two laws already approved: - Law 48-15 on the regulation of the electricity sector in Morocco which will comes into force from the 4th quarter of 2019 (Grid code, code of good conduct, capacity to accede to RES ,equipment plan, quality of service indicators, Capex, Opex, etc.). - Law N° 31-13 on the right of access to information was approved on March 12, 2018 and will comes into force on March 13, 2019. These texts provide two modes regarding communication of information (1) proactive publication on site and (2) communication on request This exchange of information will be formalized from the 2019 through the implementation of the two laws already approved.
ME	Yes	Information is published according to regulation> **International:** EU COMMISSION REGULATION (EU) No 543/2013 on submission and publication of data in electricity markets; **National:** National Energy law; Rules for functioning of electro-transmission system; Methodology for determining fees for connection to electro-transmission system; Methodology for establishing regulatory available income and price; **Internal:** Rulebook on business secrecy.
PT	Yes	European regulation with information disclosure obligations: • Directive 2003/98/CE of the European Parliament and of the Council of 17 November 2003 on the re-use of public sector information (modified by the Directive 2013/37/UE); • Directive 2007/2/CE of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE); • Directive 2009/72/EC of the European Parliament and of the Council of 13 July 2009 concerning common rules for the internal market in electricity; • Regulation (EC) 714/2009 of the European Parliament and of the Council of 13 July 2009 on conditions for access to the network for cross-border exchanges in electricity; • Commission Regulation (EU) 543/2013 of 14 June 2013 on submission and publication of data in electricity markets and amending Annex I to Regulation (EC) 714/2009 of the European Parliament and of the Council; • Regulation (EU) 1227/2011 of the European Parliament and of the Council of 25 October 2011 on wholesale energy market integrity and transparency (REMIT); • Implementing Regulation (EU) 1348/2014 of 17 December 2014 on data reporting implementing Article 8(2) and Article 8(6) of Regulation (EU) 1227/2011 of the European Parliament and of the Council on wholesale energy market integrity and transparency; • Commission Regulation (EU) 2015/1222 of 24 July 2015 establishing a guideline on capacity allocation and congestion management; National Regulation with information disclosure obligations: • Decree-Law 172/2006 of 15 February 2006 establishing the guidelines and principles concerning the functioning of the Portuguese Electric System (modified by Decree-Law 215-B/2012);

B. Is disclosure of information by your TSO imposed by law? (Yes/No/Other). If "Yes" or "Other" please detail below the applicable national or international regulation.		
		• Administrative Rule 592/2010 of 29 July 2010 establishing the requirements and rules of the interruptibility service; • Commercial Relations Code in the Electricity; • Grid and Interconnections Access Code; • Quality of Service Code; • Manual of Procedures of Global System Management; • Measurement, Reading and Data Availability Guide;
TN	Other	The disclosure of any information in our TSO is imposed by an internal instructions.
TR	Yes	TEIAS method and procedures for data confidentiality and sharing directive. Turkish Statistics Law No: 5429.

9 Annex C. Availability of data.

Nr	Issue	Average Priority	Proposed to be transparent in Mediterranean	Proposed to be published in Med-TSO website	Comments	AL	CY	DZ	ES	FR	GR	HR	IT	JO	LY	MA	ME	PT	TN	TR
1.1	Applicable regulation (national)	7,40	OK			YES	YES	YES	YES	YES	YES	YES**	YES	YES	NO	YES			NO	YES
1.2	Applicable regulation (regional, if any)	7,36	OK			YES	YES	N/A	YES	YES	YES	YES**	YES	N/A	N/A	N/A			NO	YES
1.3	Transmission system description	7,07	OK																	
1.4	Transmission grid map	7,40	OK	OK	Map already shared in Med-TSO website	YES	YES	YES	YES	YES	YES	YES**	YES	YES	YES	YES			YES	YES
2.1	Generation by technology (real time)	7,50	OK	OK		YES	YES	N/A	YES	YES	YES	YES*	YES	YES	YES	N/A*			NO	YES
2.2	Generation forecast (day ahead)	7,93	OK	OK	Based on periodicity of input data. Anyway, probably makes more sense real time generation, rather than forecast.	YES	YES	YES	YES	YES	YES	YES**	YES	YES	YES	YES			YES	YES
2.3	Generation forecast for wind and solar	8,36	OK	OK		N/A	NO*	NO	YES	YES	YES	YES**	YES	N/A	N/A	YES			YES	YES
2.4	Installed capacity by technology	8,60	OK	OK	Need to define technologies (to be coherent). A possibility to use ENTSO-E	YES	YES	YES	YES	YES	YES	YES**	YES	YES	YES	YES			YES	YES
2.5	Filling Rate of Water Reservoirs and Hydro Storage	4,38																		
2.6	Load demand (real time)	7,07	OK	OK	Based on periodicity of input data. Anyway, probably makes more sense real time demand, rather than forecast. Maybe only annual demand forecast.	N/A	YES	N/A	YES	YES	YES	YES**	YES	YES	NO	NO*			NO	YES
2.7	Load demand forecasts (day, month and year ahead)	8,00	OK	OK		YES	YES	YES	YES	YES	YES	YES**	YES	YES	YES	YES			YES	YES
2.8	Demand side management mechanism (capacity, activation rules)	5,54																		
2.9	Forecast Margin Load/Generation	6,23																		
2.10	Capacity and use of generation units and transmission grid	7,38	OK		Too detailed information? Maybe with the schedule could be enough in a first	YES	NO	YES	YES	YES	YES*	YES**	YES	YES	YES	YES			YES	YES
2.11	Scheduled outages (transmission grid and generation units)	7,15	OK																	
2.12	Unplanned outages (transmission grid and generation units	6,64																		
2.13	Constraints on Generation usage (must-run, limitations, environmental constraint, fuel constraint)	5,20																		
3.1	Daily and intraday markets	7,75	OK	OK	Need to agree if market is not in place, if it is possible to provide anyway the	N/A	N/A	N/A	YES	YES	YES	YES**	YES	N/A	N/A	N/A			N/A	YES
3.2	Use of the interconnection (programs)	7,71	OK			YES	N/A	YES	YES	YES	YES	YES**	YES	YES	YES	YES			YES	YES
3.3	Use of the interconnection (real time measures)	7,29	OK			YES	N/A	N/A	YES	YES	YES	YES**	YES	YES	YES	YES			NO	YES
3.4	Forecasted capacity – day ahead, month ahead and year ahead	7,71	OK	OK	Maybe with the schedule (and outages affecting NTC) could be enough in a first	YES	N/A	YES	YES	YES	YES	YES**	YES	YES	YES	YES			YES	YES
3.5	Information on international exchanges mechanism (i.e. auction)	7,38	OK			YES	N/A	N/A	YES	YES	YES	YES**	YES	N/A		YES			YES	YES
3.6	Congestion Income (allocation mechanisms or tolls)	6,69																		
3.7	Information on balancing reserves (volumes, prices, exchanges)	6,43																		
3.8	Information on balancing energies (volumes, prices, imbalances, exchanges)	6,00																		
3.9	Countertrading and/or re-dispatching (energy and cost)	5,77																		
4.1	Access and connection information (new generation by technology)	5,36																		
4.2	Access and connection information (new generation by node)	5,36																		
4.3	Information on congested nodes	4,50																		
4.4	Planning information: National & International Development Plans	6,86	OK		Already shared within Med-TSO	YES	NO	YES	YES	YES	YES	YES**	YES	YES	YES	YES			YES	NO
5.1	Load data	8,20	OK	OK		YES	YES	YES	YES	YES	YES	YES**	YES	YES	YES	YES			YES	NO
5.2	Generation data	8,20	OK	OK	Need to decide how many time information will be available? And from when: 2018, 2015...? Need to define technologies (to be coherent)	YES	YES	YES	YES	YES	YES	YES**	YES	YES	YES	YES			YES	NO
5.3	Market prices	7,75	OK	OK		N/A	N/A	N/A	YES	YES	YES	YES**	YES	N/A	N/A	N/A			N/A	YES
5.4	Interconnection information (capacity, auctions ...)	7,71	OK			YES	N/A	YES	YES	YES	YES	YES**	YES	YES	YES	YES			YES	YES

* Data will be available at a later stage, when necessary infrastructure is installed
*not for Use of Transmission grid

*At this stage , we think that these informations can not be published before the regulation is implemented.
Regarding informations in real time : We think that these informations need the infrastructure to pick up them from load control center

*All data in connection with generation will be available at ENTSO-TP - still not published due to some technical issues
**HOPS delivers respective data to ENTSO-E TP, as we do not have any MED-TSO (non ENTSO-E) interconnection, in order to avoid duplication of processes, possible mistakes in data quality and to make more simple technical solution, we propose that MED-TSO TP web portal just takes date from ENTSO-E TP web page for data that is already published there.

DISCLAIMER

This document contains information, data, references and images prepared by the Members of the Technical Committees "Planning", "Regulations and Institutions"; "International Electricity Exchanges" and Working Group "Economic Studies and Scenarios", for and on behalf of the Med-TSO association. Whilst the information contained in this document and the ones recalled and issued by Med-TSO have been presented with all due care, the Med-TSO Members do not warrant or represent that the information is free from errors or omission.

The information are made available on the understanding that the Med-TSO Members and their employees and consultants shall have no liability (including liability by reason of negligence) to the users for any loss, damage, cost or expense incurred or arising by reason of any person using or relying on the information and whether caused by reason of any error, negligent act, omission or misrepresentation in the information or otherwise.

Whilst the information is considered to be true and correct at the date of publication, changes in circumstances after the time of publication may impact on the accuracy of the information. The information may change without notice and the Med-TSOs Members are not in any way liable for the accuracy of any information printed and stored or in any way interpreted and used by a user.

The information of this document and the ones recalled and issued by Med-TSO include information derived from various third parties. Med-TSOs Members take no responsibility for the accuracy, currency, reliability and correctness of any information included in the information provided by third parties nor for the accuracy, currency, reliability and correctness of links or references to information sources (including Internet Sites).