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Glossary and Definitions

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Table of Contents

1 TERMS AND DEFINITIONS

Term	Acronym	Definition
Actual Energy Transfer		means the actual energy transfer of a PAEM Participant in a Dispatch Period from the Transmission System of a Member State (measured in MWh).
Actual Metering Point		means, the physical location at which the Electricity is metered.
Adequacy		means the ability of the Electricity System to meet the electrical Demand and energy requirements of consumers at all times, taking into account Planned Outages and/or Forced Outages.
Aggregated Netted External TSO schedule		means a schedule representing the netted aggregation of all external TSO schedules between two Scheduling Areas or between a Scheduling Area and a group of other Scheduling Areas.
Agreement Process		means the process where the requesting TSO and the providing one confirm the values of External TSO Schedules for a given direction and for all time intervals in a given time frame.
Allocation Rules		means the rules for Forward Capacity Allocation applied by Regional Market Facilitator
Already Allocated Capacity	**AAC**	means the total amount of allocated transmission rights, whether they are capacity or exchange programs depending on the allocation methods.
Annual Maintenance Period	**AMP**	means the period in which is more convenient to allocate the maintenance activities because the Demand is lower, energy flows are lower, and the adequacy is guaranteed with sufficient margins.
Arab Grid Code		means the technical procedures for the planning and operation of the PAEM. "Arab Grid Code" refer to "Arab Interconnection Grid Code".
Arab TSOs Committee		means the entity that is responsible for coordination and cooperation among the National TSOs, the National Market Facilitators, the Sub-Regional TSOs / Market Facilitators and the Regional Market Facilitator, and other responsibilities as outlined in section 3.5 of the General Agreement.
Area Adequacy Coordinator	**AAC**	Elected TSO for each Synchronous Area acting as Coordinator of Planning of a Synchronous Area.
Area Control Error	**ACE**	The sum of the power control error ('ΔP'), that is the real-time difference between the measured actual real time power interchange value ('P') and the control program ('P0') of a specific LFC area or LFC block and the frequency control error ('K*Δf'), that is the product of the K-factor and the frequency deviation of that specific LFC area or LFC block, where the area control error equals ΔP+K*Δf.
Area Coordinator of Planning	**ACOP**	Elected TSO members for each Synchronous Area acting as coordinator of the planning in the related Synchronous Area.
Area Group	**AG**	Group under coordination of the C4, tasked to perform market studies and other activities inherent a Synchronous Area.
Auction Specification		means a list of specific characteristics of a particular Auction, including the nature of offered products and relevant dates
Auction Tool		means the ICT system used by the Regional Market Facilitator to perform Auctions and to facilitate other procedures described in the Allocation Rules.
Automatic Generation Control	**AGC**	means a system for adjusting the power output of multiple Power-Generating Modules at different Power-Generating Facilities, in response to changes in the Demand.
Available Transmission Capacity	**ATC**	means the part of NTC, that remains available after each phase of the allocation procedure for further commercial activity.
Automatic Voltage Regulator'	**AVR**	means the continuously acting automatic equipment controlling the terminal voltage of a Synchronous Power-Generating Module by comparing the actual terminal voltage with a reference value and controlling the output of an Excitation Control System.

Balancing		means the act of maintaining a balance between electricity Demand and supply on a moment-to-moment basis.
Bank Guarantee		means an unconditional and irrevocable standby letter of credit or letter of guarantee issued by a bank
Base Case		means set of data, common for all Member States, used for grid analysis and needed to simulate cross-border exchange. The set of data includes, for a certain point in time, the expected Operating Conditions of the whole Electricity System, with the network model and input data describing load and generation patterns forecast and network topology at the study time frame (yearly, monthly and daily).
Best Effort		means, for any action required to be made, attempted or taken by a Party, all necessary efforts that a prudent person would or ought to undertake to protect its own interests, including commercial interests, taking into account the conditions affecting such action, including the amount of notice to act, recognition of the need to act, the duration and type of the action, the competitive environment in which such action occurs, and the projected benefit, cost and risk to the Party required to take such action; provided, however, Best Efforts shall always be interpreted to take into consideration the rights and obligations of the Parties under this Code, the General Agreement, and the PAEM Agreement.
Bid		means a pair of Bid Quantity and Bid Price offered by a Registered Participant participating in an Auction.
Bid Price		means the price which a Registered Participant is willing to pay for one (1) MW and hour of long-term transmission rights.
Bid Quantity		means the amount of long-term transmission rights in MW requested by a Registered Participant.
Bidding Period		means the time period within which the Registered Participants wishing to participate in an Auction may submit their Bids.
Bidding Zone		means a particular case of Trading Zone in case of regulated market regimes, where competitive energy and auxiliary service markets are regulated by auctions.
Bilateral Contract		means an agreement between two PAEM Participants to trade a specified quantity of capacity, energy or system service at prices determined by the Parties to the agreement.
Bilateral Data Exchange		Data Exchange between two Parties only.
Black Start Capability		means the capability of a Power-Generating Facility to start without an outside electrical supply so as to be used to energies a defined portion of the Grid.
Business Account		means a dedicated deposit account opened by the Regional Market Facilitator at the financial institution selected by the Regional Market Facilitator in the name of the Regional Market Facilitator, which may not be used for payments by the Registered Participant.
Buyer		means a PAEM Participant that purchases capacity, energy or a system service under a Bilateral Contract or a Multilateral Contract.
C1-Operation Planning Committee	**C1**	Committee tasked to design, maintain and monitor processes of the Operational Planning. As per 3.4.2.4 of the GA, it reports to Arab TSO Committee as sub-committee.
C2-Operation Committee	**C2**	Committee tasked to design, maintain and monitor processes of the Real Time Operation. As per 3.4.2.4 of the GA, it reports to Arab TSO Committee as sub-committee.
C3-ICT Committee	**C3**	Committee tasked to design, maintain and monitor processes and tools in matter of ICT. As per 3.4.2.4 of the GA, it reports to Arab TSO Committee as sub-committee.
C4-Planning Committee	**C4**	Committee tasked to draft the Pan Arab Master Plan. As per 3.4.2.4 of the GA, it reports to Arab TSO Committee.
Capacity Agreement Identification	**CAI**	means unique code assigned to each Physical Transmission Right by Auction Tool during the Auction. The identification code is used also when the use of the Physical Transmission Right is nominated to TSOs.

Capacity Obligation		means the requirement of this General Agreement that each Member State maintains a level of generating capacity over and above its annual peak electricity demand.
Check Meter		means a Meter used for validation and estimation for Settlement purposes in accordance with the VEE Process.
Clusters		means a group of investments to be considered as a whole to reach a given goal. Clustering is recommended when: 1. Investments are located in the same area or along the same transmission corridor; 2. They can achieve a common measurable goal; 3. They belong to a general plan for that area or corridor.
Code		means each single portion of codes of the Arab Grid Code.
Codes of Practice		means the operational practical working procedures as is the responsibility of the national TSOs to ensure are adequate for compliance with the Pan Arab Grid Code requirements.
Comitology		means the process put in place to gather the maximum of consensus in decisions of interest in common.
Committee		means a generic C1 or C2 or C3 or C4, or all of them.
Common Grid Model		Merger of Individual Grid Models in a way that flows on the tie lines are consistent with the cross-border Energy Transfers.
Common Information		Data set resulting from merging or aggregating shared individual information and all derived data.
Compensation Program		means the compensation of inadvertent deviations from a schedule. It is performed by exporting to/ importing from the interconnected system during the compensation period by means of schedules of constant power within the same tariff periods as when they occurred.
Compensation Program Schedule		means a schedule representing the exchange of electricity of TSOs related to a Compensation Program.
Compliance Monitoring		means a type of quality assurance testing that ensures that an activity complies with certain standards.
Confidential Information		means any information acquired by a Member State related to the business, finances, assets or affairs of another Member State as more specifically defined in Chapter 10 of the General Agreement.
Congestion		means a situation that occurs on a Transmission System when flows on transmission lines and equipment exceed the transmission capacity.
Connection Agreement		Detailed Document, one for each cross-border International Interconnection, specifying agreements on the management of the interconnection itself.
Connection Code	**CC**	means the Code that aims at governing the technical conditions for the access of Power-Generating Facilities and HVDC Systems to the Grids of the Member States. The aim is to promote the correct functioning and safety of the PAEM Electricity System.
Connection Point		means the interface at which the Power-Generating Module, demand facility, distribution system or HVDC System is connected to a Transmission System, offshore Network, distribution system, including closed distribution systems, or HVDC System.
Control Program		means the matched set of all exchange program related to a defined area (e.g. Control Area, Control Block) and the program for the compensation of Unintentional Deviations.
Coordination Centre Zone		the composition of a number of LFC Blocks under the responsibility of the same Coordination Centre Zone Operator.
Coordination Centre Zone Operator		means the person designated by one or more Member States responsible for: a) The coordination of exchange programs between its related LFC Blocks and for the exchanges between its associated Coordination Centre Zones. b) Ensuring that its LFC Blocks respect their obligations in respect to load frequency control.

		c) Calculating the time deviation in cooperation with the associated Coordination Centre Zones. d) Carrying out the settlement and/or compensation between its LFC Blocks and against the other Coordination Centre Zones.
Credit Limit		means the amount of the collaterals which may be used to cover any Bid submission in subsequent Auctions and is not used for outstanding payment obligations.
Current Transformer	**CT**	means type of transformer that is used to reduce or multiply an alternating current (AC). It produces a current in its secondary which is proportional to the current in its primary.
Data Collection System		means the process of extracting Metering Data from a Metering Installation and transferring such Metering Data into a remote Metering Database.
Data Exchange		means delivery and reception of data between at least two Parties.
Data Exchange Code	**DEC**	means the Code that defines the principles and regulates the Data Exchange.
Data Logger		means a device designed to be capable of reading and holding data until that data is collected.
Defence Plan		Means the pre-set array of countermeasures planned to cope with exceptional and out of range contingencies and limit the negative impact on the Electricity System.
Defined Metering Point	**DMP**	means, the physical or virtual location at which overall accuracy compliance requirements as defined in the Metering Code are to be met. The DMP shall be defined in the relevant Connection Agreement. Each single circuit interconnection between TSOs will have two DMPs, one with each TSO.
Demand		means the rate at which electric energy is required to be delivered to or by a system or part of a system, generally expressed in kilowatts or megawatts, at a given instant or averaged over any designated interval of time.
Demand Forecast		Expected Values of Demand at TSO transmission level for a certain instant in the future, associated to a given probability. Unless different specified, values are expressed on an hourly basis in MWh.
Demilitarized zone	**DMZ**	means a physical or logical subnet that separates an internal local area network (LAN) from an external, or non-propriety, network. A DMZ serves as a front-line network that interacts directly with the external networks while logically separating it from the internal network. The external-facing servers, resources and services are located in the DMZ, that are accessible from the internet, but the rest of the internal LAN remains unreachable.
Disclosing Party		means a Party delivering data.
Distributed Generation		means electric power generation within a distribution Network or on the customer side of the Network.
Distribution Systems		means a system that is directly connected to the Grid for Distributing electricity, and includes any structures, equipment or other components used for that purpose.
Dollar		means the lawful currency of the United States of America.
Dynamic Security Assessment	**DSA**	means a tool that provides TSOs with important information about the ability of a certain Operating Condition to withstand a defined set of disturbances and to regain a state of equilibrium after being subjected to a physical disturbance.
Downward Reserve		means the capacity to decrease the generation till the minimal technical output of the Power-Generating Facilities. The available reserve is the difference between the cumulated minimum technical output of Power-Generating Facilities and the Demand.
Expected Energy Not Served	**EENS**	Yearly total energy not served due to faults in the Electricity System and/or lack of generation capacity.
Energy Identification Code	**EIC**	means the PAN Arab Energy Identification Coding Scheme identifying the Parties in a cross-border trading system.

Electricity System		means the Integrated Power System and the Facilities connected to that system.
Emergency		Emergency means any abnormal system condition that requires remedial action to prevent or limit loss of a Transmission System or generation supply that could adversely affect the reliability of the Electricity System.
Energy Management System	**EMS**	means the system of computer-aided tools used by National TSOs to monitor, control and optimize the performance of the Electricity System. The monitoring and control functions are known as SCADA.
Energy Transfer		means a transfer of Energy between two Transmission Systems.
Euro		means the official currency of the European Union.
Evaluation Tools	**ET**	mean the computer-based products whose algorithms are agreed and qualified to perform simulations and computations in all the processes needed for the operation of the PAEM and described in the Arab Grid Code.
Expert Group	**EG**	means the group under coordination of the C4, tasked to perform centralized market studies.
Excitation Control System		means a feedback control system that includes the synchronous machine and its excitation system.
External Data Exchange		Data exchange, involving a Non-TSO or a Non-PAEM TSO.
External TSO schedule		a schedule representing the exchange of electricity of TSOs between different Scheduling Areas.
Facility		means a Power-Power-Generating Facility, a Load Facility, a Network, an HVDC System, or any other equipment that is a component or part of the PAEM Electricity System.
Fast Fault Current		means a current injected by an Inverter-based Power Generating Module or HVDC System during and after a voltage deviation caused by an electrical fault with the aim of identifying a fault by the protection systems of the Transmission System at the initial stage of the fault, supporting system voltage retention at a later stage of the fault and system voltage restoration after fault clearance.
Fault-Ride-Through		means the capability of electrical devices to be able to remain connected to the network and operate through periods of low voltage at the Connection Point caused by secured faults.
Force Majeure Event		means, in relation to a person, any event or circumstance, or combination of events or circumstances, (i) that is beyond the reasonable control of the person; (ii) that adversely affects the performance by the person of its obligations under this General Agreement; and (iii) the adverse effects of which could not have been foreseen and prevented, overcome, remedied or mitigated in whole or in part by the person through the exercise of diligence and reasonable care and may include, but is not limited to, acts of war (whether declared or undeclared), invasion, armed conflict or act of a foreign enemy, blockade, embargo, revolution, riot, insurrection, civil disobedience or disturbances, vandalism or act of terrorism; strikes, lockouts, restrictive work practices or other labor disturbances; unlawful arrests or restraints by governments or governmental, administrative or regulatory agencies or authorities; orders, regulations or restrictions imposed by governments or governmental, administrative or regulatory agencies or authorities unless the result of a violation by the person of a permit, license or other authorization or of any applicable law; and extreme acts of nature including lightning, earthquake, fire, flood, landslide, unusually heavy or prolonged rain or lack of water arising from weather or environmental problems; provided however, for greater certainty, that the lack, insufficiency or non-availability of funds shall not constitute a Force Majeure Event.
Forced Outage		means a shutdown condition of a power station, transmission line or distribution line when the generating unit is unavailable to produce power due to unexpected breakdown.

Frequency Containment Reserve	**FCR**	means the active power reserves available to contain the frequency deviation after an unbalance in the Electricity System.
Frequency Response Deadband		means an interval used *intentionally* to make the frequency control unresponsive.
Frequency Restoration Reserve	**FRR**	means the active power reserves available to restore the system frequency to the nominal value and the power balance to the scheduled value.
Frequency Response Insensitivity		means the feature of the control system specified as the smallest absolute magnitude of change in the frequency or input signal that can be detected by the measurement and then results in a change of output power or output signal. This interval is an inherent technological feature of the control system, and, contrary to the Frequency Response Deadband, it is *unintentional*.
Frequency Sensitive Mode	**FSM**	means the operating mode of a Power-Generating Module or HVDC System in which the active power output changes in response to a change in system frequency, in such a way that it assists with the recovery to target frequency.
GCC		means Gulf Cooperation Council countries being Saudi Arabia, Bahrain, Kuwait, Qatar, UAE and Oman.
GCCIA		means GCC Interconnection Authority.
General Agreement	**GA**	means the agreement between Member States that defining the objectives of the PAEM, the guiding principles for development of the market, the formation of, and roles and responsibilities of the PAEM Governing Institutions.
Good Utility Practice		means any of the practices, methods and acts engaged in or approved by a significant portion of the international electric utility industry during the relevant time period, or any of the practices, methods and acts which, in the exercise of reasonable judgment in light of the facts known at the time the decision was made, could have been expected to accomplish the desired result at a reasonable cost consistent with good business practices, reliability, safety and expedition. Good Utility Practice is not intended to be limited to the optimum practice, method, or act to the exclusion of all others, but rather to be acceptable practices, methods, or acts generally accepted internationally.
Governing Institutions		means the Sub-Regional Market Facilitator, the national TSOs, the Arab TSOs Committee and the Pan-Arab ARC.
Grid		means the Network with respect to which a National TSO or Sub-Regional TSO has authority to direct operations.
Grid Model		means a mathematical model describing the physical nodes and the connecting elements with associated voltages, angles injections at the nodes whose values are consistent with physical constraints of the Grid.
Grid Owner	**GO**	means the entity inside each TSO or separated, owner of the Grid or portion of them subject to public service obligations. The Grid Owner is responsible of the long-term planning and development of the national grids and the interconnections.
Grid User		means the owners of: a) Power Generating Facilities connected to the Grid or indirectly through Networks with the obligation of connecting third Parties other than the Grid, that is connected to the networks referred to in the following letter f); b) Load Facilities directly connected to the Grid or indirectly through Networks with the obligation of connecting third Parties other than the Grid, that is connected to the networks referred to in the following letter f); c) Networks, other than the Grid, with the obligation of connecting third Parties connected to the Grid directly or indirectly through Networks with third-Party connection

		obligations other than the Grid, with the exception of electricity Networks with connection obligations of third Parties managed by network operators other than the National TSO and different from the distribution companies; d) internal user Networks connected to the Grid directly or indirectly through Networks with the obligation of connecting third Parties other than the Grid, or connected to Networks referred to in letter f) below; e) direct lines connected to the Grid directly or indirectly through Networks with the obligation of connecting third Parties other than the Grid, that is connected to the networks referred to in the following letter f); f) networks with third-Party connection obligations that are not interconnected with the Grid, even indirectly through distribution networks or through DC connections; and, g) merchant lines.
Human Machine Interface	**HMI**	means the user interface that connects a physical operator to the controller for an industrial system.
High Voltage Alternate Current	**HVAC**	means a transmission technology in alternate current for high voltage applications
HVDC Converter Station		means part of an HVDC System which consists of one or more HVDC Converter Units installed in a single location together with buildings, reactors, filters, reactive power devices, control, monitoring, protective, measuring and auxiliary equipment
HVDC Converter Station Owner		means a natural or legal entity owning a HVDC Converter Station.
HVDC Converter Unit		means a unit comprising one or more converter bridges, together with one or more converter transformers, reactors, converter unit control equipment, essential protective and switching devices and auxiliaries, if any, used for the conversion
HVDC Interface Point		means a point at which HVDC System equipment is connected to an AC Transmission System, at which technical specifications affecting the performance of the equipment can be prescribed.
HVDC System		means an electrical power system which transfers energy in the form of high-voltage direct current between two or more alternating current (AC) buses and comprises at least two HVDC Converter Stations with DC transmission lines or cables between the HVDC Converter Stations.
HVDC System Maximum Current		means the highest phase current, associated with an operating point inside the U-Q/Pmax-profile of the HVDC Converter Station at maximum continuous active power which an HVDC system can exchange with the Transmission System at each Connection Point as agreed between the relevant National TSO and the HVDC System Owner
HVDC System Owner		means a natural or legal entity owning a HVDC System.
Information and Communications Technology	**ICT**	means technologies that provide access to information through telecommunications (telephone lines and wireless signals) and computers, as well as necessary enterprise software, middleware, storage, and audio-visual systems, that enable users to access, store, transmit, and manipulate information.
Individual Grid Models		Mathematical model of a Grid in load flow format, where the cross-border Energy Transfers are represented as equivalent Networks.
Individual Information		means data belonging to one TSO.
Information		the term includes, but is not limited to, technical, financial, commercial and Operational Data in whatever form (whether written, electronically or by any other means) related to one specific Operational TSO Business.

Instrument Transformer		means an electrical transformer in which the current or voltage being measured acts on the primary winding of the transformer the secondary (step-down) winding is connected to measuring instruments or protective relays.
Integrated Power System		means the Grid and the structures, equipment and other components that connect the Grid with Distribution Systems.
Interchange Point	**IP**	means a location where power flows from one Control Area to another Control Area.
Interconnected Member State		means a Member State that is connected directly or indirectly, or has a connection under construction, with another member of the PAEM.
Interconnection Capability		means the capability of an Electricity System to maximize the Energy Transfers. To this purpose contribute tie AC lines, HVDC, enhanced protection systems, processes.
International Interconnection		means a transmission line (and supporting transmission facilities) that traverses an international border.
Inverter-based Generating Modules		means a unit or ensemble of units generating electricity, which is either non-synchronously connected to the network or connected through power electronics, and that also has a single connection point to a transmission system, distribution system including closed distribution system or HVDC system.
Island		means the whole or part of a Grid that is disconnected from the interconnected PAEM Electricity System, having at least one Power-Generating Module or HVDC System supplying power to this disconnected network and controlling the frequency and voltage. The terms "Islanded" and "Islanding" shall be construed accordingly.
Isolated Systems		means a Member State that is not connected directly or indirectly, or has a connection under construction, with another member of the PAEM at the time of signing of this Agreement
Key Performance Indicator	**KPI**	means an index conventionally assumed to measure a given performance.
League of Arab States	**LAS**	means the League of Arab States.
Limited Frequency Sensitive Mode – Overfrequency	**LFSM-O**	means a Power-Generating Module or HVDC System operating mode which will result in active power output reduction in response to a change in system frequency above a certain value.
Limited Frequency Sensitive Mode – Underfrequency	**LFSM-U**	means a Power-Generating Module or HVDC System operating mode which will result in active power output increase in response to a change in system frequency below a certain value.
Load Facility		means a Facility that draws electrical energy from the Integrated Power System.
Load-Frequency Control Area or **Control Area**	**LFC Area** or **CA**	means a part of a Synchronous Area or an entire Synchronous Area of the PAEM Electricity System, physically demarcated by points of measurement of interconnectors to other LFC Areas, operated by one or more TSOs fulfilling the obligations of load-frequency control, and shall include connected physical Load Facility and/or Power-Generating Facility if any.
Load-Frequency Control Area Operator	**LFC Area Operator**	means the Person designated by one or more Member States responsible for: a) The coordination of exchange programs between its related Scheduling Areas and for the exchanges between its associated LFC Areas. b) The load frequency control for its own Control Area. c) The coordination of the correction of time deviations.
Load-Frequency Control Block or **Control Block**	**LFC Block** or **CB**	means a part of a Synchronous Area or an entire Synchronous Area, physically demarcated by points of measurement of interconnectors to other LFC Blocks, consisting of one or more LFC Areas, operated by one or more TSOs fulfilling the obligations of load-frequency control.

Load-Frequency Control Block Operator	**LFC Block Operator**	means the person designated by one or more Member States responsible for: a) The load frequency control within its own Control Block and ensuring that its load-frequency Control Areas respect their obligations in respect to load frequency control and time deviation. b) The organization of the settlement and/or compensation between its LFC Areas.
Load-rejection		means the sequence of automatic maneuvering actions of Power-Generating Modules activated by the opening of the switch of a Module due to faults occurred on the external Transmission System. The logic of Load-rejection has the purpose of adjusting the speed of the group to values close to the nominal one and reduce, or eliminate, fuel supply to adjust the power produced to that of the auxiliary services of power plant (i.e. trip the Module to household) and thus allowing the rapid re-synchronization of the Module.
Long-Term Planning		means the planning activity in which the modification of the assets (added new or decommissioned old) to adapt an Electricity System to the future energy needs.
Long-Term Transmission Right		means a right entitling its holder to physically transfer a certain volume of electricity in a certain period of time between two bidding zones in a specific direction
Loss of Load Expectation	**LOLE**	means, for a given area under the control of a TSO, the number of days per year when the available source capacity is insufficient to serve the load.
Loss of Load Probability	**LOLP**	means, for a given area under the control of a TSO, the probability that hourly demand exceeds the resource capacity.
MAGHREB		means the Member States located is the western part of the Pan-Arab region: Morocco, Algeria, Libya, Tunisia and Mauritania.
Main Meter		means the Meter when is to be differentiated from the Check Meter.
Maintenance Plan		means the maintenance interventions generating the Unavailability Plan.
Marginal Price		means the price determined at particular Auction to be paid by all the Registered Participants for each MW and hour of acquired Long-Term Transmission Right.
Market Secretariat		means the administrative body of that name established by Pan-Arab ARC to serve the PAEM, which shall be temporary within the LAS Secretariat. The Pan-Arab ARC may, in the future, attach it to the Regional Market Facilitator or any suitable entity, while considering the importance of maintenance of technical and administrative independence of Market Monitoring Group defined in this agreement, if decided to be merged with Regional Market facilitator or any other operating body.
MASHREQ		means the Member States located is the eastern part of the Pan-Arab region, located in Western Asia and eastern North Africa, namely: Egypt, Iraq, Jordan, Lebanon, Palestine, Syria.
Master Plan or **Planning Statement**	MP	It is the result of the Planning process concerning the expansion plan for generation and transmission, including reserve margins, in a horizon of ten years ahead.
Member States		means all Arab states that are signatories to the General Agreement and taking part in the PAEM.
Meter		means a device that measures, or in the case of Check Meter calculates, and records active energy, reactive energy or both and shall be deemed to include the Data Logger but to exclude the Instrument Transformers.
Meter Information Register		means the detailed data records for the Metering Database under the responsibility of the TSO and to be shared and maintained with the Market Secretariat.

Metering Code	**MC**	means the Code that outlies common principles, and specifies minimum technical and design requirements, as well as establishing the basic rules around the data collection for the TSOs and other actors in the PAEM.
Metering Data		means electrical quantities measured and recorded by a Metering Installation.
Metering Database		means an information system established and maintained by the National TSOs and the Regional Market Facilitator for the purpose of storing Metering Data.
Metering Equipment		means any apparatus used to measure electrical quantities and includes the communication system by which Metering Data are transferred to the relevant telecommunications network through which Metering Data are transferred to the communication interface of the Metering Database. It includes Meter, Current Transformer, Voltage Transformer, and installations.
Ministerial Council or **Arab Ministerial Council for Electricity**		includes the Ministers responsible for electricity in the Arab countries which has ultimate approval authority over most aspects of the PAEM
Multilateral Data Exchange		means Data Exchange among more than two Parties.
Multilateral Contract		means an agreement between more than two PAEM Participants to trade a specified quantity of capacity, energy or system service at prices determined by the Parties to the agreement.
National Annual Unavailability Plan	**NAUP**	means the Unavailability Plan at each TSO level.
National Control Centre		Set of plants intended for the control and operation of a Grid or of a user of the Electricity System (other than a Power-Generating Facility).
National Development Plan	**NDP**	means the development plan of Grid expansion and generation at national or TSO level.
National Grid Code		means the technical procedures for the planning and operation of each single Electricity System of the Member States.
National Market Facilitator		means the person designated by a Member State to perform national Electricity market operation and management duties.
National Regulator		means the person responsible in each Member State for regulating the power sector of that Member State; where there is a person vested with specific responsibilities for such regulation, and in all other cases means the governmental department in a Member State with administrative responsibility for the power sector.
Net Transfer Capacity	**NTC**	means the maximum exchange programmed between two Control Areas compatible with security standards applicable in both areas and considering the technical uncertainties on future conditions of the interconnected Electricity Systems. It is calculated as the Total Transfer Capacity minus the Transmission Reliability Margin.
Netted Area Position		The netted aggregation of all AC and DC external schedules of an area.
Network		means a plant and apparatus connected together in order to transmit or distribute electricity.
Network System for the Connection		it has the meaning given to it in Section 4 of the Connection Code – i.e. the set of plants and equipment to build from the point of the Network in the configuration pre-existing the connection to the Connection Point, necessary for the connection of Power-Generating Facility and/or the HVDC System to the Network.
Nominal Power or **Generation Capacity**		means the maximum active power that a Power-Generating Module, generation station or other electrical apparatus can supply, usually expressed in megawatt.
Nomination		means the data concerning a Bilateral Contract that a Seller or Buyer provides to the Regional Market Facilitator for purposes of dispatch and settlement, including the quantity of energy, in MWh,

		that a Seller is selling to a Buyer at a specified location and in a specified hour.
Non-PAEM Data		means data belonging either to a Non-PAEM TSO or to a Non-TSO.
Non-PAEM TSO		means a TSO which is not a member of PAEM.
Non-TSO		means a legal entity not dealing with Operational TSO Business including: Market Players. Distributors, producers, power exchanges, traders, consumers, Authorities, Governments, regulators, Arab institutions, courts and tribunals.
Observability Area		means a TSO's own Grid and the relevant parts of Distribution Systems and neighboring TSOs' Grids, on which the TSO implements real-time monitoring and modelling to maintain operational security in its Control Area.
Corrective Maintenance		means unplanned maintenance interventions due to unexpected faults.
Operational TSO Business		means real-time, periodical and on request tasks performed for Grid operational planning, forecast, operation and analysis, that require exchange of data which, or a part of which, is necessary to carry out their work properly.
On-request Data Exchange		Data Exchange which is usually carried out to support a single analysis or report on operational or security aspects.
Operating Conditions or **System State**		means the set of values of voltage, current, frequency and other parameters characterizing the quality of operation of any Facility connected to the Transmission System of the same Synchronous Area.
Operating Regulation Document		means a regulation agreed and signed between the Owner of a Facility and the relevant TSO in order to define the respective responsibilities in the context of the operation and control of the functional portions of the relevant Grid.
Operational Planning Process	**OPP**	Structured process for the coordination of the operation planning.
Operation Security Standard	**OSS**	means a set of security criteria that each TSO shall adopt to operate its Electricity System in normal condition and in case of contingencies.
Operation Code	**OC**	means the Code that aims at defining and governing the rules for operating the International Interconnections in the Pan Arab Region.
Operational Data		mean snapshots, reference data sets, load-frequency control data, frequency monitoring data, frequency measurement campaign data, data on power exchanges as well as real-time measurements.
Other Parties		Universities, research institutions, consultants, manufacturers, engineering offices, departments or companies of vertically integrated companies or groups not dealing with Operational TSO Business.
Outage		means the removal of equipment from service, unavailability for connection of equipment or temporary de-rating, restriction of use, or reduction in performance of equipment for any reason including, but not limited to, permitting the performance of inspections, tests or repairs on equipment, and will include a Planned Outage and a Forced Outage.
PAEM Data		Data used for the purposes of the Data Exchange, belonging either to a TSO or to a group of TSOs or to the PAEM.
PAEM Electricity System		means the integration of the Electricity Systems of the Member States.
PAEM Governing Institutions		means the Regional Market Facilitator, the Arab TSOs Committee and the Pan-Arab ARC.
PAEM Participants		means a person who is duly authorized to participate in the PAEM
Pan Arab Settlement Responsible Party		means the role played by the Coordination Center Zone Operator, the Control Block Operator or the Control Area Operator, who collects all the accounting point data and all relevant scheduling data and establishes the Pan Arab Settlement Report for the corresponding Pan Arab area

Pan-Arab Electricity Market	**PAEM**	means the regional electricity market regulated by the Governance Documents.
Pan-Arab Advisory and Regulatory Committee	**Pan-Arab ARC**	means the entity that is responsible for providing advisory and regulatory oversight of the PAEM.
Pan Arab Communication Network	**PACN**	Private network dedicated to data exchange between electricity sector TSOs and operates under the responsibility of the TSOs and the management of the relevant Coordination Centre Zone.
Pan-Arab Electricity Market Agreement or **PAEM Agreement**		means the agreement governing the commercial aspects of the PAEM.
Pan Arab Settlement Responsible Party		means the Party who collects all the accounting point data and all relevant scheduling data and establishes the Pan Arab Settlement Report for the corresponding Pan Arab area. The role can be played by the Coordination Centre Zone Operator, the Control Block Operator or the Control Area Operator.
Participation Agreement		means the agreement, by which the Parties undertake to comply with the terms and conditions for Cross Zonal Capacity Allocation as contained in these Allocation Rules.
Party/ Parties		means the Regional Market Facilitator and/or a Registered Participant referred to individually as Party or collectively as Parties
Periodic Data Exchange		Data Exchange which is carried out on a periodic basis (e.g. hourly, daily, weekly, monthly, yearly or seasonally).
Person		includes any company, partnership, trust, joint venture, association, corporation or other private or public corporate body, any government agency and any other entity or body or class of entity or body designated by law as coming within the definition of the word "person".
Planned Outages		means an Outage that is planned and intentional.
Planning Code	**PC**	means the Code that aims at defining and regulating the process for the long-term planning of the International Interconnections of the PAEM Electricity System
Planning Methodology		means a set of agreed rules for carrying out the planning activity in the Pan-Arab region area, whose final delivery is the Master Plan.
Planning Process Starting Date	**PPSD**	Date when the planning process formally starts.
Planning Statement		means a statement setting out the indicative expansion plan for generation and transmission, including reserve margins.
Power Control Error		means, when referred to an Area/Control Block, the total power deviation of that area in interconnected operation, calculated as the difference between the total tie-line active power flow (sum of all related measurements) and the control program (sum of all related exchange schedules and the compensation programs).
Power-Generating Facility	**Facility**	means a facility that converts primary energy into electrical energy and which consists of one or more Power-Generating Modules connected to a Network at one or more Connection Points.
Power-Generating Facility Owner		means a natural or legal entity owning a Power-Generating Facility.
Power-Generating Module	**Module**	means either a Synchronous Power-Generating Module or an Inverter-based Generating Module.
Power System Stabilizer	**PSS**	means an additional functionality of the AVR of a Synchronous Power-Generating Module whose purpose is to damp power oscillations.
Product Period		means the time and date on which the right to use the Long-Term Transmission Right commences and the time and date on which the right to use the Long-Term Transmission Right ends.
Preventive Scheduled Maintenance		means the maintenance interventions planned in advance.
Project		means a project for the development of one or more cross-border International Interconnections among Member States to increase the Energy Transfer and the security of supply.

Publish		means, in respect of a document or information, to place that document or information on the website of the Market Secretariat, the Regional Market Facilitator or the Pan-Arab ARC, and publication shall be interpreted accordingly.
Real-Time Data Exchange		means Data Exchange which describes a current situation in the system, done also on request e.g. after a change of status or value.
Receiving Party		means a Party receiving data.
Reduction Period		means a period of time, i.e. specific calendar days and/or hours, within the Product Period in which Cross Border Capacities with a reduced amount of MW are offered taking into account a foreseen specific network situation such as planned maintenance, long-term outages, foreseen balancing problems.
Regional Annual Unavailability Plan	**RAUP**	means the Unavailability Plan at Sub-Region level based on all the available NAUPs of the Sub-Region.
Regional Coordination Entity	**RCE**	means an entity with day bay day operation activities for providing centralized services to the TSOs of a Synchronous Area. Sub-Regional TSO/ Market facilitator could play this role.
Regional Group		means a group of TSOs established temporarily or permanently to deal with the application of general technical matters to the Regional policies and practices.
Regional Market Facilitator, or PAEM Market Facilitator		means the entity formed to take on the market facilitation role performed by the National Market Facilitators for the entire PAEM. The decision and timing for formation of this entity will be approved by the Ministerial Council based on a recommendation filed by the Arab TSOs Committee and reviewed by the Pan-Arab ARC.
Registered Participant		means a market participant which has entered into a Participation Agreement with the Regional Market Facilitator
Regulation Report		means a report to be published periodically by the Pan-Arab ARC on matters arising in the PAEM where action may be required to resolve the matter.
Relevant Grid	**RG**	it has the meaning given to in Section 1.8 of the Operational Code – i.e. the set of cross-border tie lines at any nominal voltages and the portion of the Transmission System across the borders whose behavior affects the security of the International Interconnections and indirectly the Energy Transfers across the border.
Remote Terminal Unit	**RTU**	means a microprocessor-based electronic device used in industrial control systems to connect various hardware to distributed control systems or supervisory control and data acquisition.
Renewable Electricity Resources	**RES**	means the resources of production of electricity from on-going natural processes, such as sunshine, wind, flowing water, biological processes, and geothermal heat flows.
Replacement Reserve	**RR**	means the active power reserves available to restore the adequate level of FRR.
Reserves for Regulation	**RFR**	means the spinning power reserves used for frequency and load-frequency control.
Reserves of Replacement	**ROR**	means the cold power and the tertiary non-spinning reserve to be used in a defined notice.
Rights Document		means a document containing the information of the maximum amount of allocated Physical Transmission Rights that can be nominated by a Registered Participant per bidding zone border per day per hour and per direction, taking into account the volume of Long-Term Transmission Rights initially acquired, the subsequent transfers and returns, and any possible curtailments which occurred before the issuance of the Rights Document
Rolling Plan		means a plan with time horizon of 10 years, updated every 2 years.
Scenario		means an outlook of the future characterized by guiding indicators. A Scenario is not a prediction to which a probability is associated.
Scheduled Energy Transfer		means an Energy Transfer that has been scheduled to take place in accordance with the Arab Grid Code;

Scheduling & Dispatching Code	**SDC**	means the Code that defines and regulates the process for the joint determination of the Total Transfer Capacity (TTC) and the Net Transfer Capacity (NTC) on yearly, monthly and daily bases among the Member States.
Scheduling Area	**SA**	an area within which the TSOs obligations regarding scheduling apply due to operational or organizational needs
Scheduling Area Exchange Document	**SAX**	means the data set representing the energy exchange agreed between two TSOs. The document is the input for the Verification Process. The following document of the exchange of Aggregated netted external TSO schedule between two Scheduling Areas
Secondary Control		a centralized automatic function to regulate the generation in an LFC Area based on secondary control reserves
Security of Operation	**SoO**	means the attitude of a system to accomplish its task with sufficient reliability that is to be able to withstand the stresses of the system due to faults and to other external events.
Security of Supply	**SoS**	means the capability of a system to cover the demand in a given period of time and for a given area.
Seller		means a PAEM Participant who is selling capacity, energy or a system service under a Bilateral Contract or a Multilateral Contract.
Snapshot		means the set of data and information at a given instant of each Electricity System in terms of grid topology, nodal generation injections, nodal voltages in magnitude and phases and nodal loads
Socio Economic Welfare	**SEW**	means a parameter representing the potentiality of developing cross-border trading in a competitive manner for the benefits of the consumers.
Status of a Project		means a generic term to indicate what is the maturity of a Project to evaluate the distance to its implementation. That is: 1. under consideration; 2. planned, but not yet in permitting; 3. permitting; 4. under construction; 5. commissioned; 6. cancelled.
Sub-Region		means a part of the PAEM and it is used from time to time, indicating Member States sharing common policies and similitudes. Derivatives, as "Regional" are defined accordingly.
Sub-Regional TSO/ Market facilitator		means the person designated by two or more owners of interconnection facilities to perform transmission system operations, market management or any other functions (without prejudice to PAEM governing institutions roles and responsibilities) mandated by the relevant owners of these facilities, for a part of the transmission system traversing two or more Member States.
Substation Automation System	**SAS**	The secondary system installed in any substation providing automation, monitoring, remote and local control and protection of the substation.
Supervisory Control and Data Acquisition	**SCADA**	Computer based system to acquire measures and connections of the Electricity System for control purposes.
Short-Circuit Current or **Short-Circuit Power**		means the maximum current/power that a Network can supply to equipment with a fault in it. It is expressed either in MVA or in effective kA for a given service voltage.
Shortage		means any situations in which, for any reason, the load Demand cannot be met with the standard characteristics of security of supply.
Synchronous Area		means a portion of the PAEM Electricity System covered by synchronously interconnected National TSOs
Synchronous Power-Generating Module		means an indivisible set of installations which can generate electrical energy such that the frequency of the generated voltage, the generator speed and the frequency of Network voltage are in a constant ratio and thus in synchronism.

Synthetic Inertia		means the electronic facility provided by an inverter-based Park-Generating Module or HVDC System to replace the effect of physical inertia of a synchronous Park-Generating Module.
System Adequacy Forecast		means an expected outlook of the coverage of the Demand and associated reserve margins.
Distribution System Operator	**DSO**	means the person designated by one or more Member States to perform operations on the Distribution System.
System Service		means a service other than the production of energy and/or provision of capacity, which is used to maintain reliability including reserves, frequency control, voltage control and black start capability.
Total Transfer Capacity	**TTC**	means the maximum exchange programmed between two Control Areas compatible with operational security standards applicable at each Electricity System if future Grid conditions, the generation and Demand patterns are perfectly known in advance.
Trading Zone		It is a portion of an Electricity System, where any form of market is organized, and a cost of the energy is formed.
Transmission Reliability Margin	**TRM**	means that amount of TTC necessary to ensure that the interconnected Transmission System is secure under a reasonable range of uncertainties in system conditions.
Transmission System		means a system consisting of interconnected transmission lines, substations and related facilities for the purpose of transporting bulk power and energy.
Transmission System Operator	**TSO**	means the person designated by one or more Member States to perform Transmission System(s) operations and dispatch for the relevant Electricity Systems.
Unavailability Coordination		means a structured process of inter TSO coordination to optimize time and duration of an unavailability.
Unavailability Plan		means an optimized schedule of unavailability of Grid elements and Power-Generation Facilities.
Underfrequency Load Shedding	**UfLS**	means a practice adopted to shed loads by means of relays driven by frequency or its derivative.
Unintentional deviation		means, for each energy exchange that has taken place in a given time interval between a relevant area and its Synchronous Area or between a relevant area and another relevant area in a different Synchronous Area, the difference between the actual measured energy exchange, and the scheduled energy exchange and all intentional deviations from that schedule
Upward Reserve		means the capacity to increase the generation till the maximum technical output of the Power-Generating Facilities. The available reserve is the difference between the cumulated maximum technical output of Power-Generating Facilities and the Demand.
Value of lost load	**VOLL**	Monetary value of the unmet demand. In case no better evaluation exists, VOLL is the GDP / Total annual energy demand of a Member State.
Variable Renewable Energy-unit	**VRE-unit**	means Power-Generating Modules that uses variable RESs as primary energy sources.
VEE Process		means the process used to validate, estimate and edit raw Metering Data to produce final Metering Data or to replicate missing Metering Data.
Verification Process		means the Verification of Aggregated Netted External TSO Schedules which has to sum up to zero within the Synchronous Area
Voltage Transformer	**VT**	means a parallel connected type of Instrument Transformer, used for metering and protection in high-voltage circuits or phasor phase shift isolation. They are designed to present negligible load to the supply being measured and to have an accurate voltage ratio to enable accurate metering.
Wide Area Protection System	**WAPS**	means a protection system adopted to protect an Electricity System from a partial or total blackout or brown-out in operational situations when no particular equipment is faulted or operated outside its limitations. This situation could appear after the

		clearance of a very severe disturbance in a stressed operation situation or after a period of extreme load growth.

2 STRUCTURE OF THE CODE AND HIERARCHY OF HEADINGS

The **Arab Grid Code** is structured in accordance with the structure and hierarchy of headings shown in Figure 2-1.

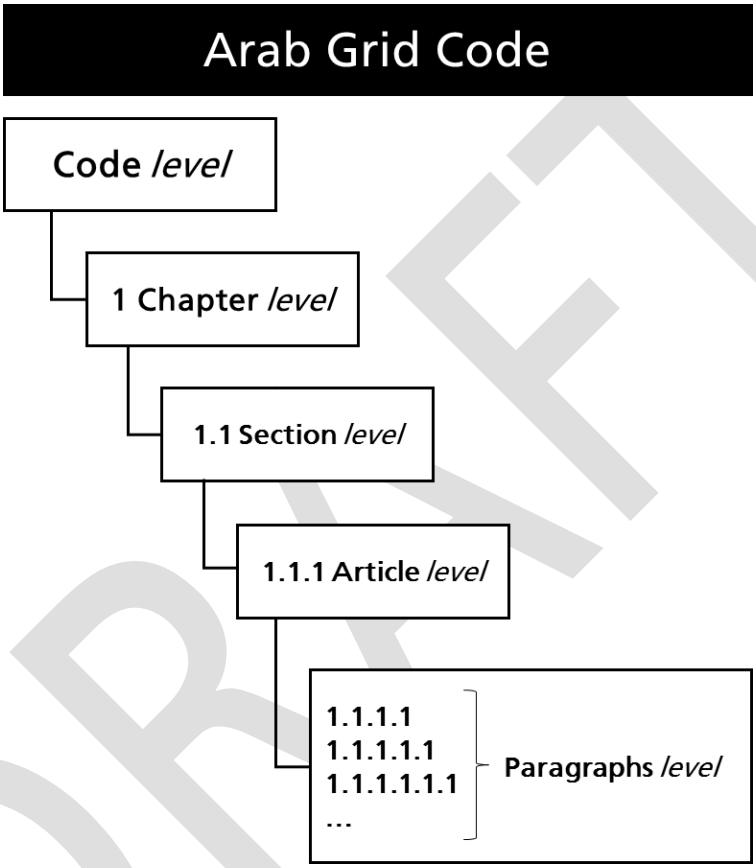

Figure 2-1. Structure of the code and hierarchy of headings