Electricity Distribution Code
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Chapter One
Code Objectives and Validity

1-1 The code at hand aims at regulating the process of distributing and connecting electricity to subscribers in a safe and stable manner, and to further connect the scattered electricity production units with the electricity distribution network.

1-2 This code comes into force –after being approved by the board of directors of the Authority's (Egyptian Electric Utility and Consumer Protection and Regulatory Authority)- on the day following its publication in the official gazette. The licensed electricity distributors and the scattered electricity production units are to apply the code and comply –i.e. adjust their status to the set standards- within two months from the date of publishing the code.

1-3 This code applies to all licensed electricity distributors and also to the scattered electricity production units. It furthermore applies to all agreements concluded between them or between either of them and the subscribers prior to enforcing this code.

1-4 The Authority is entitled to amend some articles of this code whether upon its own proposal, in response to the request of any of the licensed distributors or any of the subscribers. The proposed amendments are to be discussed with the stakeholders. In case the proposed amendments are approved, they are to be endorsed by Authority's board of directors. Accordingly, they come into force from the date of their publication in the official gazette.

1-5 The licensed distributor is obliged to make the code and its amendments available to all concerned parties dealing with this matter. To this, the said party is obliged to display such on its own announcement boards.
Chapter Two
Contracting the supply of electrical power

1-2 Supplying the installations with electrical energy

2-1-1 The licensed distributor is obliged to connect the electrical current to any installation that falls within the geographic zone for which it had been granted a license by the Authority.

2-1-2 When the installation owner applies for supply with electrical energy he is committed to complete all the documents included in the Manual for Electrical Supply of Investment Projects or the Manual for Connecting Electrical Supply to residential buildings in villages and cities as the case may be and which is issued by the Authority.

2-1-3 The licensed distributor is obliged to set dates with the applicants of electrical supply to complete the related connections according to a time schedule included in the Manual for Electrical Supply of Investment Projects or the Manual for Connecting Electrical Supply to residential buildings in villages and cities as the case may be.

2-1-4 The licensed distributor is obliged to launch the electrical current to the installation with which it has concluded a contract. This is to be on the date and with the volume of power stipulated in the contract.

2-1-5 It is not permissible for the licensed distributor to launch the electrical current if it establishes that the installation –to which the electricity is supposed to be connected- is not compliant with the conditions stipulated within the Egyptian code with regard to the basics of design and the conditions of implementing the electrical installations and connections in buildings. The electrical current is not to be started unless the a.m. conditions are to abided by.
2-2 **Supplying Electrical Energy**

2-2-1 *The licensed distributor* is obliged to develop standard contract forms for supplying electrical power for *subscribers* according to the voltage and the different purposes, whereby they are to include the following as minimum requirements:

1- Sufficient data on both parties, whereby they are to include the data related to *the licensed distributor*, and number and kind of license issued by the *Authority*.

2- Contract term, time duration respectively, and its amendment or renewal procedures.

3- The extended power stipulated within the contract.

4- Description of the location contracted for electricity supply.

5- Paid insurance.

6- Consumption measuring system.

7- Method of charging for the consumption value and the mechanisms of changing the price.

8- Guarantee that *the licensed distributor* will abide by the levels of voltage quality and electrical supply approval granted to the subscriber.

9- Procedures followed in case of any of the parties breaching his obligations.

10-Method of insuring the supply and responsibilities of the parties in emergency cases.

11-Method of terminating the contract and the obligations of both parties in due time.

2-2-2 The *subscribers* are entitled to conclude non-standard contracts with special requirements with *the licensed distributor*, whereby it is required to abide by this code. Both *parties*, *the licensed distributor* and the *subscribers* that wish to conclude such contracts should submit the contracts to the *Authority* for approval prior to abiding by them.

2-3 **Combating Monopoly**

2-3-1 The subscriber who has concluded a contract with *the licensed distributor* in a specific geographical zone, is to contract the supply of *electrical energy* with any party licensed to produce or to sell electrical energy. He is obliged to pay for the use of transmission or distribution networks that are approved by the *Authority*. This is according to the rules and regulations issued by the *Authority* in this concern as the case may be.
Chapter Three
Planning and managing assets of electricity distribution networks
3-1 Planning the electricity distribution networks

3-1-1 The licensed distributor is to draw up and implement the expansion plans and raise the distribution efficiency that is approved by the Authority in order to cover the consumer needs in the areas he is licensed to work in.

3-1-2 The licensed distributor is to abide by the following:
1- Drawing up plans for support, rehabilitation, renewal, maintenance, prevention and operation of the components of his own distribution network in a manner that conforms with the development of the future loads.
2- Drawing up plans for supporting the connection points that link between him and the transmission company and those that are licensed to distribute to others, as the case may be, and in conformity with the development of the future estimated loads.
3- Drawing up and testing emergency plans to face emergencies that may have an impact on the quality of service and of supplying the subscribers with electrical energy.
4- Developing an annual report known as "report on planning the distribution network" that clarifies the plan for at least three following years.

3-1-3 The report on planning the distribution network should at least include the following:
1- The rules and basics of drawing up the plan for the distribution network.
2- The expected demand pertaining to the electrical energy and its date for each of the network administration zones.
3- The different options for supplying the expected demand, in addition to the plan of the licensed distributor for managing the demand for electrical energy. This is in addition to the plans for rationalizing and improving the efficiency of the electrical energy use by subscribers.
4- Basics for defining the best technical and economic option for supplying the expected demand.
5- Technical and economic description of the annual programs for improving the supply approval of the network including a cost-
benefit study, while evaluating the programs for improving the supply approval of the previous year.

3-2 **Quality of Asset Management**

3-2-1 *The licensed distributor* is obliged to manage his assets in a manner that guarantees preserving them in good condition, using them optimally and upgrading the distribution services. For this purpose, he is to undertake the following:

1. Evaluating and recording the kind, location, status and performance of the assets of his own distribution system.
2. Implementing the plans of preventive maintenance, rehabilitation, renewal, repair and depreciation within his own distribution system.
3. Developing the procedures that guarantee following the technical principles when purchasing, selecting, storing, transferring and installing electrical equipment.
4. Operating his own electricity distribution networks in a manner that would guarantee the optimal use, yet would not exceed their safe loading.
5. Developing a system that would guarantee the protection of his equipment and devices from being manipulated by third parties and the danger that might be caused by such.
6. Developing and implementing a program for periodically revising prevention systems for the purpose of protecting the network's components.
7. Undertaking all the measures that guarantee safe disposal of the depreciated equipment and requirements in conformity with the environmental laws and conditions, and health and safety.
8. Developing, implementing and improving the plans for simulating incidents and failures that might occur and the manner to deal with them.

3-2-2 The *Authority* is to revise and inspect those procedures in case the quality of supply approval measures are clearly deteriorating or if there are signs of possible deterioration in future.

3-3 **Electric equipment and devices for subscribers**

3-3-1 The subscriber is to abide by the following:

1. Building, operating and maintenance of his internal networks and making the necessary installations for limiting any
electrical damages reflected by his loads on the network supplying him or on the other subscribers.

2- Electrical supply should only be used inside his installations mentioned in the supply contract and for the contracted purposes.

3- Not to make any illegal installations or connections.

4- Not to manipulate, neither by himself or by a third party, the equipment of the distribution network, including those installed inside his installations and for which he is considered fully responsible.

5- Providing the required facilities for protecting the equipment pertaining to the distribution network that is within the limits of his installations.

6- Providing safety devices for his own equipment and clear safety instructions for the representative of the licensed distributor to guarantee safe entry into the installation and the safety and security of the representative of the licensed distributor inside the installation.

3-3-2 While not violating the stipulation of item 3-3-1, the licensed distributor is to abide by the following:

1- His electric installations are to conform with this code and to be maintained in a safe manner.

2- The prevention equipment of his electric installations are to conform with the electrical specifications of the distribution network equipment.

3-3-3 The subscriber is to abide by providing the requested facilitations to enable the representative of the licensed distributor (after verifying his identity) to reach the equipment of the licensed distributor that are located inside his installation and the subscriber's electric devices in order to inspect, test, connect or disconnect the electrical supply.

3-3-4 The representative of the licensed distributor is committed to enter the subscriber's installation in a time that is suitable to both parties. Yet in emergency cases he is allowed to enter at any time and is to be assisted and enabled from carrying out his job in a safe and rapid manner.
Chapter Four
Quality of electricity supply

The licensed distributor is obliged to provide the electrical supply to all subscribers according to the general criteria of electrical supply criteria stipulated in this code.

4 – 1 Quality of electrical supply voltage

4-1-1 The licensed distributor is to preserve the limits of the contracted nominal voltage change at the supply point for the subscriber according to the criteria included in Table No. (1):

Table No. (1)

<table>
<thead>
<tr>
<th>Nominal Voltage</th>
<th>Change in the nominal voltage</th>
<th>The actual (intermittent, inducing, flowing) voltage (kV)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Stability</td>
<td>Less than one minute</td>
</tr>
<tr>
<td>Less than 1000 volt</td>
<td>± 5%</td>
<td>6</td>
</tr>
<tr>
<td>More than 1000 volt and up to 6600 volt</td>
<td>± 5% for the underground networks</td>
<td>60</td>
</tr>
<tr>
<td>11000 volt</td>
<td>± 10% for the aerial networks</td>
<td>95</td>
</tr>
<tr>
<td>22000 volt</td>
<td></td>
<td>150</td>
</tr>
</tbody>
</table>

He has to apply the best methods for reducing the repetition of the voltage change rate which occurs on periods of less than one minute. The licensed distributor is obliged to record and observe the voltage in its stability level and the changes occurring to it in relation to each distributor and which are beyond the limits included in the table.

4-1-2 The licensed distributor has to verify that the voltage flicker levels at the joint connection points are subject to the standard specifications IEC – 868-0-1991 according to Table No. (2):
Table No. (2)

<table>
<thead>
<tr>
<th>Flicker intensity</th>
<th>Level required for low and medium voltages</th>
<th>The planned level (medium voltage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flicker for a short period $P_{st^*}$</td>
<td>1</td>
<td>0.9</td>
</tr>
<tr>
<td>Flicker for a long period $P_{lt^{**}}$</td>
<td>0.8</td>
<td>0.7</td>
</tr>
</tbody>
</table>

* Short period for measuring is 10 minutes
** Long period for measuring is 2 hours

4-1-3 *The licensed distributor* is obliged to follow the instructions given to him from the national control center. The center is to take the necessary measures to preserve the network frequency at 50 Hertz, while taking into consideration the changes allowed within the network code.

4-1-4 *The licensed distributor* is to work at limiting the distortions of the levels of voltage synchronization within the network. This is to be achieved by verifying the levels of voltage synchronization at the points of common complying that are nearest to the subscriber's supply points of medium voltage which conform with the levels specified in Table No. (3).

Table No. (3)

<table>
<thead>
<tr>
<th>Levels of distortions resulting from the voltage synchronization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage at the point of common complying</td>
</tr>
<tr>
<td>Up to 22 kV</td>
</tr>
</tbody>
</table>

*The licensed distributor* is subject to the standard specifications IEEE 519 – 1992
"Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems"

4-1-5 *The licensed distributor* is to observe the voltage quality for all supply sources and to send a notice to the subscriber requesting him to install the necessary equipment for limiting the impact of his electrical installations on the supply quality of other subscribers. This would conform with the limits stipulated in the articles of this code and should be undertaken within sixty days at
the most. In case the subscriber does not abide by such, then the licensed distributor is entitled to disconnect the electrical supply provided to him until he carries out the necessary arrangements.

4-1-6 The subscriber is to verify that his equipment do not cause any voltage fluctuations at the points of common complying that exceed the levels specified in Table No. (2).

4-1-7 In case more than one subscriber is connected to the same connection points, then the maximum allowed number of users for the voltage fluctuations for each is in proportion with the maximum of his load.

4-1-8 The subscriber with a contracted power of 10 KW and more is to keep the levels of the electrical current synchronization according to the limits specified in Table No. (4) at the nearest point of common complying in conformity with the standard specifications IEEE 519 – 1992.

Table No. (4)

<table>
<thead>
<tr>
<th>$I_{sc}/I_L$</th>
<th>Maximum fluctuation resulting from the synchronization of the electrical current with a percentage of $I_L$</th>
<th>Total Harmonic Distortions in the current synchronization THD (I)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Levels of separated synchronizations (single synchronizations) $h$</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$h &lt; 11$</td>
<td>$h &lt; 17$</td>
</tr>
<tr>
<td>$&lt; 20 ^*$</td>
<td>4%</td>
<td>2%</td>
</tr>
<tr>
<td>20 - 50</td>
<td>7%</td>
<td>3,5%</td>
</tr>
<tr>
<td>50 - 100</td>
<td>10%</td>
<td>4,5%</td>
</tr>
<tr>
<td>100 - 1000</td>
<td>12%</td>
<td>5,5%</td>
</tr>
<tr>
<td>&gt; 1000</td>
<td>15%</td>
<td>7%</td>
</tr>
</tbody>
</table>

Remarks:
1- The double synchronizations are limited to 25% of the single synchronizations within the table.
2- It is not permissible to have a DC (direct current) component.
3- $I_{sc}$ = maximum short circuit current at the point of common complying
4- $I_L$ = maximum load current of the main frequency component at the point of common complying.
4-1-9 Stabilization of the Load
The subscriber is to verify the stability of his loads so that the current of each phase does not deviate from the average of the measured three-phase -whatever the applied calculation method is or the measuring device that is used in calculating- exceeding the following percentages:
5% for networks of up to 1 kV
2% for networks higher than 1 kV
Exceeding the a.m. percentages is permissible for a period of time that is less than two minutes as follows:
Up to 10% for networks of up to 1 kV
Up to 4% for networks that are higher than 1 kV

4-1-10 Power Factor
The subscriber of 10 kW power and more is obliged to keep the average power factor at 0,90. In case this factor decreases in the fiscal year reaching below 0,90, then the subscriber is obliged to compensate the licensed distributor according to the electrical current supply contracts that have been approved by the Authority.

In case the power factor reaches less than 0,7, then the compensation value increases according to the electrical current supply contracts that have been approved by the Authority. The subscriber is obliged to install devices for improving the power factor within nine months from the date of being notified by a registered letter. In case no devices are installed within this a.m. period, then the licensed distributor is entitled to disconnect the supply extended to the subscriber until he improves the power factor to at least 0,90. The contract remains valid until the factor is improved. In case the factor increases above 0,92, the subscriber then deserves a reduction of the invoice value according to the electrical current supply contracts that have been approved by the Authority.
4-2  Approval of electrical supply

4-2-1  Recording the disconnections
The licensed distributor is obliged to develop an accurate system for recording loads, and programmed and un-programmed disconnections for each feeder.

4-2-2  The licensed distributor is obliged to provide two different sources on the cost of the subscriber for installations like hospitals, water and sanitary drainage stations and public transportation means.

4-2-3  The licensed distributor is obliged to submit a quarterly report to the Authority within one month after the end of period of electrical supply approvals that have taken place during this period. He is furthermore obliged within one month from the fiscal year end to submit a report to the Authority with regard to the approval of electrical supply that has been issued during this year, its objectives and its plans for the following fiscal year with regard to improving approvals of electrical supply. This is to be carried out in accordance with the forms issued by the Authority. The said report is to be published on the website of the licensed party in addition to other kinds of media publishing.

4-2-4  The licensed distributor is entitled to disconnect the electrical supply to take the following measures:
   1- the programmed maintenance
   2- the un-programmed maintenance
   3- carrying out any amendments to the distribution system
   4- implementing plans for excluding the loads (*)
   5- carrying out orders of the network operator
   6- Facing emergency cases
   7- Re-supplying the subscribers

4-2-5  The programmed disconnections
In cases of programmed disconnections, the licensed distributor is to notify the affected subscribers via the media of the disconnections at least two days prior to disconnecting the electrical supply. There should be coordination with the industries and with entities providing vital services, in addition to providing them with a written notification that is to be signed by the officer in charge of the installation as evidence of acknowledgement. The notification should specify the expected date of disconnection, the hour and the time duration. In addition, there should be a hotline 24 hours round the clock for inquiries against a fee for local calls.
4-2-6 The un-programmed disconnections and emergency cases
In cases of un-programmed disconnections or emergency cases, the licensed distributor is obliged to answer the subscribers' queries concerning the nature of disconnections and to specify the time necessary for re-supply. A hotline should be provided 24 hours round the clock for inquiries against a fee for local calls. He is committed to re-connect the electrical current the moment the disconnection causes are tackled. Coordination should take place with the administrative body in emergency cases.

4-2-7 Plans for excluding the loads (*)
The licensed distributor is obliged when developing and implementing plans for excluding the loads (*) to carry out the following:
1- Those plans are not to include hospitals and public utilities like water and sanitary drainage stations and public transportation means.
2- The time durations of the load exclusion (*) are not to exceed two hours weekly to the same subscribers while treating them all equally.

4-2-8 The licensed distributor is obliged to develop a system for receiving complaints from subscribers with regard to the quality of electrical supply, they are to be recorded and responded to.

(*) Translation note: Kindly note that the word in the original Arabic version is uncommon and can have several meanings, e.g. exchange, drop, remove, exclude and other meanings.
Chapter 5
Quality of service

5-1 The licensed distributor is obliged to draw up a list of services provided to subscribers and to define the regulating rules for obtaining full services, which at least requires indicating the documents, the applications for service performance, the papers required from the subscriber, the appointed fees charged for receiving the service and the time duration for achieving the service. This is to be displayed in an apparent location at the branches of the party licensed to distribute. In addition he should place the a.m. on his own website.
The licensed distributor is also obliged to select a suitable media form for announcing his telephone numbers and the email address for receiving inquiries, complaints and information pertaining to disconnections of electrical supply.

5-2 The licensed distributor is obliged to enter into agreement with those applying for services -within the timing included in the Manual for connecting electrical supply for subscribers which is approved by the Authority- in order to do the necessary inspections concerning the electrical current connections. In case the licensed distributor does not abide by the set date, he is obliged to pay each service applicant a delay fine of 100 L.E. for each day of delay.
In case the service applicant does not abide by the set date, an agreement is entered into on a following date for accompanying the inspector. This is to be on the cost of the service applicant.

5-3 In case the licensed distributor does not launch the electrical current at the agreed launching date, he is obliged to compensate the subscriber with an amount equal to 0.5 % of the value of the supply invoice for the delay of each working day, with a maximum amount of 1000 L.E. per day.

5-4 The licensed distributor is obliged to compensate the subscriber with an amount equal to 20% of the average monthly consumption during the year, if the following cases occur:
1- a disconnection that exceeds 12 continuous hours.
2- any subscriber who is supplied via overhead transmission networks and is subjected to over 15 incidents of disconnections during the year.
3- any subscriber who is supplied via underground cables and is subjected to over 9 incidents of disconnections during the year.
The licensed distributor is exempted from paying those compensations to the subscriber in the following cases:

1- The electrical supply is disconnected due to a violation of code by the subscriber.
2- The disconnection has been upon request by the subscriber or caused by him.
3- The programmed disconnections that do not exceed the specified period included in the notification according to item 4-2-5.
4- The instantaneous disconnections.

The licensed distributor is to apply to the Authority requesting his exemption to pay any compensations to subscribers in case the cause for the failure is an emergency case, is a force majeure or is caused by third parties.

5-5 Any compensation provided to the subscriber according to this code is to be settled by the licensed distributor when issuing the first invoice that follows the due compensation to the subscriber.
Chapter Six
Producing electricity at scattered units

6-1 When concluding contracts with the scattered units of electricity production, the licensed distributor is obliged to do the following:

1- Link and provide access for use of a network of the scattered units of electricity production on condition to fulfill the technical conditions stipulated in this code.

2- Verifying that the distribution network absorbs the energy sent from the scattered unit of electricity production. This is to be in accordance with the agreement that has taken place between both parties, while taking into consideration the requirements of controlling the unit, disconnecting and connecting it.

6-2 Obligations of the scattered electricity production units
The scattered unit of electricity production is obliged to fulfill the following:

1- To continue operating the unit at 50 Hertz supply frequency and in the limits of the changes allowed, tolerated respectively, according to item 4-1-3.

2- The unit and its annexes, that are connected to the distribution feeder, should conform with this code. It is to be maintained according to the technical principles.

3- The prevention equipment for protecting the unit are to be constantly in compliance with the electrical specifications of the distribution network.

4- The unit is to be in conformity with the technical requirements of the environmental and occupational health and safety measures.

6-3 The minimum requirements of the scattered units of electricity production that are synchronized with the distribution network

A - Each scattered unit of electrical production, which is higher than one megawatt, is to be equipped with the following as a minimum:

1- A system controlling the stimulation of the electrical generator including the voltage regulator.

2- Governor system with rapid response to frequency changes.

B - Each scattered unit of electricity production, with a power of more than 10 megawatt, is to be equipped with the suitable equipment that can fulfill the following:
1- Response to the voltage fluctuations
2- Safe stopping when the external electricity supply is disconnected
3- Re-operating after loosing the external source of electrical supply
4- Response to transitions in frequency and the stable performance of the governor system

6-4 A- In case of connecting the scattered unit of electricity production in parallel with the electrical network, the following is to be taken into consideration according to the standard specifications (IEEE standard 1547 – 2003)
   • The unit is not to cause a change in the network voltage which would exceed the tolerated limits (+5%)
   • The grounding system of the unit is not to influence the consistency of adjusting the protection devices with regard to underground failures.
   • The unit is not to cause fluctuations or flicker in the voltage which would exceed the tolerance limits.
   • The unit is not to constantly pump current higher than 0.5% of the total fixed current, at the unit connection point.

B- The unit should pass all tests stipulated in the standard specifications (IEEE standard 1547 – 2003). This pertains to the following:
   • Performance in the case of transient voltages
   • Synchronization
   • Protection from electromagnetic interference
   • Limits of the electrical DC (direct current)
   • Voltage synchronization

6-5 Negative phase sequence voltage
The share of the scattered unit of electricity production does not exceed 1% in the negative phase sequence voltage at the point connecting with the distribution network.
6-6 **Synchronizations**

The use of the scattered unit of electricity production should not lead to increasing the distortion resulting from synchronization of the voltage at the point connecting with the distribution network, i.e. it should not exceed the tolerated limits included in Table No. (3) of this code. The unit is to abide by the standard specifications IEEE 519 – 1992 "Recommended Practices and Requirements for Harmonic Control in Electrical Power Systems" And should not exceed the limits of distortions resulting from the synchronization of the electrical current included in Table No. (4) of this code.

6-7 **The inductive interference**

*The scattered unit of electricity production*, that is affiliated to the company producing scattered units, should not lead to inductive interference that exceed the limits mentioned in the standard specifications IEEE Std. C37,90,2 - 1995, IEEE Standard with Stand Capability of Relay Systems to Radiated Electromagnetic Interference from Transceivers.

6-8 **Levels of short circuit currents**

When designing and operating the scattered production unit it should be taken into consideration not to cause levels of short circuit currents in the distribution network that exceeds the limits as per Table No. (5).

<table>
<thead>
<tr>
<th>Voltage level kV</th>
<th>Level of the feeding short circuit current MVA</th>
<th>Level of short circuit current kA</th>
</tr>
</thead>
<tbody>
<tr>
<td>22</td>
<td>500</td>
<td>13,1</td>
</tr>
<tr>
<td>11</td>
<td>350</td>
<td>18,4</td>
</tr>
<tr>
<td>6,6</td>
<td>250</td>
<td>21,9</td>
</tr>
<tr>
<td>Less than 1</td>
<td>36</td>
<td>50</td>
</tr>
</tbody>
</table>

6-9 If two or more scattered units are connected in parallel, then their obligations are applied according to the items entitled "negative phase sequence voltage, synchronization and levels of short circuit currents" that are included in this code at the point of common complying. The maximum percentage of sharing allowed for each unit is calculated by the capacity ratio, unless otherwise agreed upon.
Chapter Seven
Plans for responding to emergencies

The licensed distributor is to develop plans for emergency cases and crises management in cooperation with the concerned entities. The plans are to be periodically tested and upgraded whenever necessary.

Chapter Eight
Providing information

8-1 The obligations of the licensed electricity distributor and of the subscribers

8-1-1 The licensed distributor is obliged to undertake the following:
A – Providing a copy of this code, of the statutes and the commercial regulations of the licensed distributor, in addition to contract forms upon request against the cost price.
B - Submitting a copy of the contract to each subscriber upon contract conclusion and providing the Authority with a copy upon request.
C - Providing information on electricity tariff and the method of calculating charges applied to all classifications of subscribers.
D - Publishing the balance sheet and the annual financial reports of the licensed distributor in one of the well-known newspapers and placing it on his own website.

8-1-2 Upon request of the subscriber or the authorized dealer representing him, the licensed distributor is to provide information concerning the quality of electrical supply of the a.m. subscriber including an explanation of any incident of failure to supply the subscriber (programmed or un-programmed). The above information is to be provided within 15 working days from the date of request.

8-1-3 If the information requires from the licensed distributor to measure the quality of the electrical supply pertaining to the subscriber, then this is to be carried out on his cost. If it is established upon measuring that the licensed distributor did not abide by the requirements of the electrical supply quality according to this code, then the paid amounts are to be reimbursed. In addition, necessary
arrangements are to be taken to reach the quality level of electrical supply specified in this code

8-1-4 Upon request of the subscriber or the authorized dealer representing him, the licensed distributor is obliged to provide information concerning his own requirements, in case the subscriber makes new installations, undertakes adjustments to the already existing installations or increase the loads.

8-1-5 Upon request of the subscriber the licensed distributor is to provide him with the relevant information on the requirements of the licensed distributor with regard to any new electric installations or changes to the subscriber's existing electric installations including the following:
1- the requirements for protecting the equipment of the licensed distributor
2- the necessary precautions to avoid interference between the subscriber and the electrical supply extended to the other subscribers who are connected to the same connection point as the subscriber.
3- Subscriber's access to a copy of the standard specifications included in this code.

8-1-6 The licensed distributor is obliged to provide the necessary relevant information for the work of the authorized dealer. This is to be placed on his own website.

8-1-7 The licensed distributor is obliged to provide the subscribers with an English copy of the necessary information.

8-1-8 Subscribers Obligations
The subscriber is to notify the licensed distributor in the following cases:
A - Changes undertaken with regard to the subscriber's connections or equipment of the electrical network that might influence the quality of electrical supply extended to any other subscriber
B - Changing the work nature of the subscriber
C - Changing the location nature that might hinder the licensed distributor from reaching his equipment that exist on site at the subscriber's location
D - His plans for increasing the loads, even if they do not exceed the contracted power
8 – 2 Information for planning an electricity distribution network

8 – 2 – 1 The subscriber, *the scattered production units* or the authorized dealer are obliged to provide information on the existing loads or those planned to be connected to the distribution network. The purpose of such is to plan the network of *the licensed distributor* which includes the following:

1- location of load within the distribution network
2- existing loads
3- existing load curve
4- time schedule for expanding the loads and their kinds
5- the programmed standstills
6- the power of the installed equipment

8 – 2 – 2 *The licensed distributor* is to respond to the request from another *licensed distributor* to provide him with data on their points of common complying for the purpose of integrated planning of the network.

8 – 3 Confidentiality of Data and Information

8 – 3 – 1 The *subscribers* are entitled to receive data pertaining to them. Furthermore, the building and real estate owners are entitled to receive data on the electrical connections installed in their buildings as well as the date of connecting the electrical supply, the numbers of plates installed in those buildings, the names of the contractual parties and the dates of their relevant contracts. The a.m. data are to be provided upon a written request submitted by the subscriber or the building owner against a *fee* that is proposed by *the licensed distributor* and acknowledged by the *Authority* according to the rules and regulations set by the *Authority* in this concern.

The administrative bodies and the *Authority* are to provide data pertaining to *subscribers* free of charge upon receiving an official letter.

8-3-2 All data and information that *the licensed distributor* keeps pertaining to the *subscribers* are confidential. It is not permissible to submit those data and information except to persons or entities authorized according to this code.
Chapter Nine
Complaints and Solving Disputes

9-1 The licensed distributor is to deal with complaints from the subscribers according to the rules and regulations approved by the Authority.

9–2 Each licensed distributor is to record the complaints he receives from the consumers and which are to include the following at the least:
1- Name of complainant, his address and his contact data
2- Name of complaint recipient
3- Date of complaint entry and its number
4- Address of the complaint location
5- Subject of complaint
6- Procedures of investigating the complaint
7- Decision taken and its date

9-3 The licensed distributor is to respond to the complainant within the time period according to the rules and regulations approved by the Authority. The complainant is entitled to address the Authority to complain about the decision of the licensed distributor.

Chapter Ten
Violating the Code

10 – 1 In case any of the subscribers violates the provisions of this code the licensed distributor should send him a warning notice, especially if the violation causes damages to the licensed distributor or to other subscribers. The notice should pertain to the following:
1- kind of violation
2- damages that were caused to the licensed distributor or to third parties
3- the procedures that the violating party should take to rectify the violation
4- the time period that should be abided by in order to rectify the violation
5- repercussion that are caused by continuing not to abide by his obligations to rectify the violation
6- the procedures that are to be taken by the licensed distributor to face the violator in case he does not abide

10 – 2 The licensed distributor is entitled to take procedures for disconnecting the electrical supply according to this code in the case that the subscriber does not abide by his obligations as per contract for the supply of electrical power or according to the content of the warning notice mentioned in item 10 – 1.

The electrical supply is not to be disconnected after 1.00 pm during working days, on Thursdays, during the weekend, the official holidays or the day preceding the official holidays.

10 – 3 The licensed distributor is entitled to immediately disconnect the electrical supply extended to the subscriber without prior notice if he verifies the following acts having been done, and which is according to the regulations issued by the Authority:
1- connecting electricity that is registered on his own meters to other units belonging to him but that were not contracted for
2- using the electricity that is registered on his own meters for other purposes of use that he had not specified in the supply contract
3- if it is proven to the company, that the subscriber has intentionally damaged the meters
4- if in connection with the act of theft, the subscriber destroys the stamps placed on the meters or destroying equipment
5- if it is proven that the subscriber receives electricity that is not registered on the meters or the recording devices

10 – 4 The licensed distributor is entitled in emergency cases to disconnect the electrical supply extended to the subscribers without prior notice.

10 – 5 Notwithstanding the provisions included in this code, the licensed distributor should not disconnect the electrical supply to any subscriber if the disconnection comes as a result of a court case between the licensed distributor and the subscriber and where the final verdict has not been issued yet.
The licensed distributor is obliged to re-connect the electrical supply to the subscriber after eliminating the causes of violation. This is to take place at the same day the subscriber submits his application to re-connect or at any other time that is specified by the subscriber. In case the licensed distributor does not abide by the a.m. time periods, the subscriber is then compensated according to the provisions of item 5-4 of this code.

Chapter Eleven
Code of Electricity Meters
The licensed distributor and the subscriber have to abide by the code of electricity meters.

Chapter Twelve
Legal responsibilities
The licensed distributor should not include any additional conditions or provisions in the electrical energy supply contracts for subscribers -which limit his responsibilities towards them- contrary to what is included in this code or in the regulations approved by the Authority.
Chapter Thirteen
Compensation Regulations

The subscriber is not entitled to receive compensation from the licensed distributor for the damage to his equipment in case he has violated the conditions included in this code or in the Egyptian code of design basics, the conditions of implementing connections and the electrical installations in buildings.

Chapter Fourteen
Force Majeure

14 – 1 In case the subscriber or the licensed distributor does not abide by any of the articles of the electrical energy supply contract as a result of force majeure incidents, the following is to be undertaken:
A – Ceasing to implement the obligations of the subscriber or the licensed distributor which are included in the contract depending on damage degree inflicted upon him as a result of those conditions until they end.
B – Each party is to inform the other party about the force majeure, its approximate time period, its impact on performing his obligations and the procedures that he will follow to eliminate this impact.
C - If the force majeure incidents are of a general nature then the licensed distributor has to provide information to the subscribers via an adequate communication means. This is to be within 24 hrs from knowing about those force majeure incidents.

14 – 2 In case the licensed distributor violates the provisions of this code and his being unable to abide by them for reasons of force majeure, and further in case there has been a negative impact on one of the subscribers, then the licensed distributor has to take the following measures:
1- investigate the reason for his inability to abide by this code
2- notify the subscriber with the procedures that are taken to correct the negative impact and the expected time period for eliminating it.
**Chapter Fifteen**  
**Definitions**

<table>
<thead>
<tr>
<th>Definition</th>
<th>Description</th>
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<tbody>
<tr>
<td>1 - Launching the electrical current</td>
<td>A non-zero sequence voltage exists after making connections</td>
</tr>
<tr>
<td>2 - Supply approval</td>
<td>Measure indicating the capacity of the distribution network to provide <em>subscribers</em> with electricity</td>
</tr>
<tr>
<td>3 - Maximum power</td>
<td>Peak active power registered by an integrated time period of fifteen minutes</td>
</tr>
<tr>
<td>4 - Electrical installations</td>
<td>Any electric equipment the subscriber has and that are connected to the distribution network but are not part of it</td>
</tr>
<tr>
<td>5 - Total harmonic distortion resulting from synchronization</td>
<td>Ratio between the average square root of the synchronization components to the average square root of the main synchronization, expressed in terms of percentage</td>
</tr>
<tr>
<td>6 - Tariff</td>
<td>Prices of selling electricity approved for <em>subscribers</em> by the <em>Authority</em> with regard to the different distribution voltages and for all usages. They are according to the general criteria for the supply quality approved by the <em>Authority</em> and the conditions related to those prices with regard to launching electrical current</td>
</tr>
<tr>
<td>7 – Supply / Feeding</td>
<td>Launching the electrical current</td>
</tr>
<tr>
<td>8 – Scattered production</td>
<td>Production units that are connected to the distribution network</td>
</tr>
<tr>
<td>9 – Failure</td>
<td>Exceeding the value of the electrical supply voltage from the distribution network to the subscriber by 10% of the nominal voltage value for more than one minute</td>
</tr>
<tr>
<td>10 – Instantaneous failure</td>
<td>Failure that continues for less than one minute</td>
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<tr>
<td>11 – Distribution</td>
<td>Distributing electricity on medium and low voltage networks</td>
</tr>
<tr>
<td>12 - Connection</td>
<td>Connecting to the distribution network</td>
</tr>
<tr>
<td>13 – The Authority</td>
<td>Electric Utility and Consumer Protection and Regulatory <em>Authority</em></td>
</tr>
<tr>
<td>14 – Voltage</td>
<td>Average square root of the phase to phase voltage (except in case of the actual voltage)</td>
</tr>
<tr>
<td>15 – Medium nominal voltages</td>
<td>Voltages higher than 0,4 kV and up till less than 33 kV</td>
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<tr>
<td>16 – Low nominal voltages</td>
<td>Voltages up to 0.4 kV</td>
</tr>
<tr>
<td>17 – Actual voltage</td>
<td>The instantaneous rising of the voltage to a maximum value after which it falls down to zero, usually with a less average</td>
</tr>
<tr>
<td>18 – Load</td>
<td>Demand for electricity at the supply point</td>
</tr>
<tr>
<td>19 – Distribution license</td>
<td>The official document that is issued by the Authority to a legal personality to undertake the activity of distributing electrical energy</td>
</tr>
<tr>
<td>20 – Confidentiality of information</td>
<td>Any information about the subscriber or any information given to the licensed distributor conditioned by confidentiality</td>
</tr>
<tr>
<td>21 – Complaint</td>
<td>Expressing the dissatisfaction whether in written or verbal form about an act or refraining from acting on the part of the licensed distributor</td>
</tr>
<tr>
<td>22 – Active energy</td>
<td>The temporal integration of the result of multiplying the voltage with the electrical current component, while both conform with regard to phases</td>
</tr>
<tr>
<td>23 – Inactive energy</td>
<td>The temporal integration of the result of multiplying the voltage with the electrical current component, while both are not conform with regard to phases</td>
</tr>
<tr>
<td>24 – Emergency</td>
<td>Any incident that can jeopardize the safety and security of any person, electric installation or another installation</td>
</tr>
<tr>
<td>25 – Nominal power</td>
<td>Square root of the sum of squares of the active and inactive power</td>
</tr>
<tr>
<td>26 – Active power</td>
<td>Time rate of supply with active energy</td>
</tr>
<tr>
<td>27 – Inactive power</td>
<td>Time rate of supply with inactive energy</td>
</tr>
<tr>
<td>28 – Licensed distributor</td>
<td>The legal personality that is licensed to undertake the activity of purchasing, distributing and selling electrical energy via a distribution network for which he has obtained authorization with regard to distribution of voltages</td>
</tr>
<tr>
<td>29 – Subscriber</td>
<td>A natural person or legal personality contracting with the licensed distributor to supply him/it with electrical energy</td>
</tr>
<tr>
<td>30 – Power factor</td>
<td>The ratio between the active power and the nominal power</td>
</tr>
<tr>
<td>31 – Average power factor</td>
<td>The ratio between the consumed active energy during the period of charging (the fee) for the...</td>
</tr>
<tr>
<td>Term</td>
<td>Definition</td>
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<tr>
<td>power factor</td>
<td>to the square root of the active and inactive energy that is consumed during the same period</td>
</tr>
<tr>
<td>32 – Feeder</td>
<td>Electricity line on the medium power and the equipment related to it, and which is used by the licensed distributor to distribute electricity</td>
</tr>
<tr>
<td>33 – Charge for the service</td>
<td>The value that is approved by the Authority against the services provided by the party licensed to distribute</td>
</tr>
<tr>
<td>34 – Geographic zone of the licensed distributor</td>
<td>The geographic area or areas in which the licensed distributor is authorized to undertake the activity specified for him in the license</td>
</tr>
<tr>
<td>35 – Governor system</td>
<td>The automatic system for controlling the rotation speed of the unit producing electrical power</td>
</tr>
</tbody>
</table>
| 36 – Point of supply | a) in case of supplying medium voltage:  
- medium voltage switchboard pertaining to the subscriber  
b) in case of supplying low voltage:  
- low voltage switchboard pertaining to the subscriber and which is installed at the nearest point of the distribution network inside the limits of the subscriber's ownership |
| 37 – Connection point | The point at which the scattered production unit is connected to the network of the party licensed to distribute |
| 38 – Point of common complying | The nearest point of the network pertaining to the party licensed to distribute, at which the electrical installations are connected for two or more subscribers |
| 39 – Scattered production unit | An electrical power production unit that is connected to the distribution network |
| 40 – Force majeure | Exceptional incident or condition that is described as being out of the control of persons, where the normal person cannot guard himself from it, avoid it or keep away when it occurs |