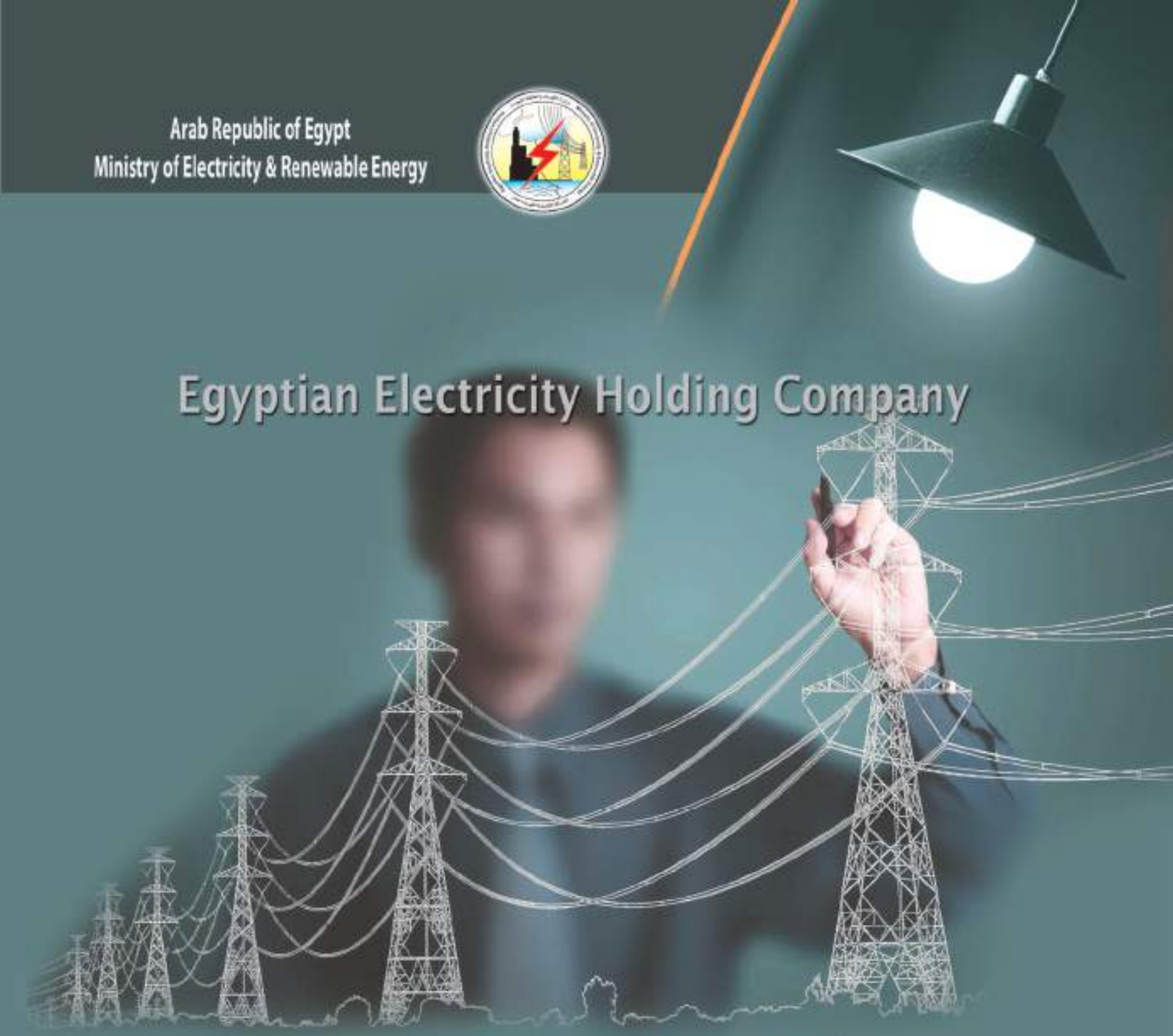
Arab Republic of Egypt
Ministry of Electricity & Renewable Energy

Egyptian Electricity Holding Company



Annual Report 2020/2021

Dr. Mohamed Shaker El-Marqaby
Minister of Electricity & Renewable Energy

Eng. Gaber Dessouki Mustafa

Chairman of The Egyptian Electricity Holding Company

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Egyptian Electricity Holding Company (EEHC)

The Egyptian Electricity Holding Company (EEHC) is an Egyptian joint-stock company subject to the provisions of Law no. 159 of 1981 and its amendments and Executive Regulation to the extent they are not in contradiction with Law no. 164 of 2000 regarding transformation of the former Egyptian Electricity Authority to an Egyptian joint-stock company and the Electricity Law no. 87 of 2015 and its amendments and Executive Regulation.

Headquarter	Issued Capital (Billion EGP)	Authorized Capital (Billion EGP)	Address	Phone Numbers
Cairo	53.718	80.000	Abbasseya, Cairo	02/22616487 02/22616306 Fax: 02/22612239 Website: www.eehc.gov.eg

Vision

World Class Leadership and Excellence for Sustainable Electrical Energy

Mission

Provide sustainable electrical energy for all customers through available resources according to international standards at competitive prices by corporate effort adopting quality policies, optimal utilization of resources and environment conservation based on high-efficient human potentials and technologies performing work in an ethically responsible manner for the benefit of our customers, employees and society.

Foreword by the Chairman

- EEHC and its subsidiaries exert all necessary efforts for securing the resources of electrical energy to meet the requirements of the country being a key element for sustainable development.
- The Company is always keen on diversifying the sources of power production (hydro, thermal, renewable) and establishing a balanced electrical system in terms of production, transmission, and distribution through manifold policies, such as:

- Using state-of-the-art technologies that achieve the highest efficiency in power generation (the combined cycle system).
- Strengthening the existing networks to be able to transmit the generated capacities to all users in accordance with the best global practices.
- Paying special attention to preventive and programmed maintenance and management through control centers that use the latest global systems in computers and software aimed at realizing the optimal operation of the electricity system, maximizing the advantages of each element of the system, and achieving stability of supply in clear and tangible way since years ago until now and in the future, God willing.
- Using the appropriate fuel for power plants in coordination with the Petroleum Sector where the share of natural gas reached 98.2% of the total fuel used.
- Adopting future planning to meet future needs.

- These policies have largely contributed to the achievement of numerous unprecedented indicators that are mentioned in this report.
- Meanwhile, the Company does not miss an opportunity to follow the most important global developments in the field of energy and environment, which is clearly demonstrated in the following:

- Taking part in the preparation of the National Strategy of Green Hydrogen and signing a number of memoranda of understanding with various international companies to implement pilot projects for producing green hydrogen aiming to achieve the goal of making Egypt a global energy hub.
- Considering Egypt s commitment to the goals of Paris Climate Agreement and in view of the anticipated actions to be taken globally regarding carbon emissions, especially in thermal plants using coal as fuel, in addition to the fall in prices of new and renewable energies and their technological development, it has been decided to stop construction of power plants operated by coal.
- Paying attention to the Company s role in energy pools in line with the interests of Egypt, thus fostering the Egyptian regional role.
- Activating smart services applications to improve the level of service offered to citizens in a manner that ensures provision of high-quality services in conformity with the international specifications to be provided through multiple channels such as service centers, hotline, unified platform for smart electricity services, and electronic application.

- We are proud to receive continuous praise from all State sectors that reflects the extent of satisfaction of citizens and officials locally and universally, which represents a motive for us to pursue our effort to achieve more consumer satisfaction.
- Out of its belief in the importance of documenting information and data, EEHC is privileged to issue this Statistical Report on its activities and accomplishments in 2020/2021, hoping it would serve as a useful reference for specialists in energy affairs.
- Finally, it gives me much pleasure to express my thanks and appreciation to all employees of EEHC and its affiliated companies who participated in all the achievements referred to in this Report.

Eng. Gaber Dessouki Mustafa

Chairman

Organizational Structure of EEHC

Board of Directors (as at 30.6.2021)

Eng. **Gaber Dessouki Mostafa**
Chairman of EEHC

Eng. **Mohamed Abdel-Moneim El-Tablawy**
Executive Director For Planning, Research & Generation Projects

Acc. **Nadia Abdel-Aziz Qatry**
Executive Director for Financial, Commercial & Financing Affairs

Eng. **Mahmoud Mohamed ElNaqeeb**
Executive Director for Production Companies' Affairs

Acc. **Abdel-Mohsen Khalaf Ahmed Sifein**
Executive Director for HR, Training & Administrative Affairs

Dr. **Khaled Mohamed El-Destawy**
Executive Director for Distribution Companies' Affairs

Dr. **Ali Mohamed Abdel-Fattah**
First Undersecretary of the Ministry of Electricity & Renewable Energy

Mr. **Mohamed Gamal El-Deen El-Sobky**
Chief of Final Accounts' Sector, Ministry of Finance

Mr. **Hamed Abul Magd Mahran**
Assistant Deputy Governor for Foreing Relations, Central Bank of Egypt

Mr. **Mohamed Farid Abdel Fattah**
Chief of Infrastructure, Production Activities & Service Ministry of Planning

Mr. **Waleed Eid Mahmoud El-Haddad**
Chief of Central Dept. of Cooperation with Eastern Asia Countries, Ministry of International Cooperation

Dr. **Magdy Mohamed GalalelDin Badr**
Chairman of Egyptian Natural Gas Holding Co. (EGAS)

Eng. **Mohamed Mohamed Abdel-Atty**
GEO, Mechanics & Electrical Directorate

Dr. **Adel Nazmy Ali Hassan**,
Board Member representing employees

- Dr. Ali Mohamed Abdel-Fattah, 1st Undersecretary of the Ministry of Electricity & Renewable Energy for the Minister Office Affairs, was appointed in replacement of Dr. Hassan Mahmoud Hassanein Taha by virtue of the Ministerial Decree no. 162 of 2020 issued on 18.8.2020.
- Dr. Magdy Mohamed Galaleldin, Chairman of EGAS, was appointed in replacement of Eng. Osama Ahmed El-Baqly by virtue of the Ministerial Decree no. 107 of 2020 issued on 30.6.2020

Objectives of the Egyptian Electricity Holding Company (EEHC):

1. Providing electrical energy on the various voltages for all uses with high efficiency at affordable prices.
2. Carrying out planning, studies and designs in the field of competence of the Company and its affiliated companies.
3. Managing the Company s securities portfolio and investing its funds through the affiliated companies and other entities in the fields of production, transmission and distribution of electrical energy and other complementary and associated works.
4. Purchasing the electrical energy produced in power plants constructed by authorized local and foreign investors and selling it on the ultra-high voltage networks.
5. Working on rectifying the financing structures and economic path of the affiliated companies, maximizing their profitability and rationalizing costs.
6. Conducting researches and tests of electrical equipment of different voltages.
7. Implementing projects for producing electrical energy from different sources (other than nuclear power) in accordance with global technologies, and the associated projects for the construction and management of desalination plants and selling desalinated water.
8. Carrying out consultancy and service works in the field of electrical energy production, transmission and distribution locally and internationally.
9. Implementing electrical interconnection projects and exchange of electrical energy with other countries and selling and buying it according to needs to and from the electrical networks connected to the Egyptian grid.
10. Providing medical services.
11. Providing training services at the highest global level.

EEHC exercises its powers on its own or through its affiliated companies or the joint-stock companies that the Company establishes on its own or in association with others.

Electricity in 2020/2021

Description		2019/2020	2020/2021	Variation %
Total Installed Capacity [1]:	**MW**	**59 530**	**58 818**	**(1.2)**
• Hydro	MW	2 832	2 832	0
• Thermal (Affiliated Companies & EEHC Plants) [2]	MW	51 634	50 922	(1.4)
• New and Renewable Energy (Wind & Solar) [3]	MW	3 016	3 016	0
• Private Sector BOOT (Thermal)	MW	2 048	2 048	0
Peak Load	**MW**	**32 000**	**31 900**	**(0.3)**
Total Power Generated (on country level) :	**GWh**	**197 357**	**204 794**	**3.7**
• Hydro	GWh	15 038	14 769	(1.8)
• Thermal [4]	GWh	162 092	168 478	3.9
• New and Renewable Energy [5]	GWh	8 663	10 202	17.8
• Private Sector (BOOT)	GWh	11 408	11 188	(1.9)
• Power Generated from Isolated Plants	GWh	136.4	133	(2.5)
• Energy Purchased from (IPPs)	GWh	19.5	24	23.1
Total Fuel Consumption [6]	**K toe**	**32 133**	**32 408**	**0.9**
• Production Companies (including EEHC s plants)	K toe	29 688	30 034	1.2
• Private Sector (BOOT)	K toe	2 445	2 374	(2.9)
Fuel Consumption Rate at Production Companies	gm/kWh gen.	183.20	178.3	(2.7)
Fuel Consumption Rate, including BOOT	gm/kWh gen.	185.20	180.4	(2.6)
Thermal Efficiency (including Private Sector BOOT)	%	47.40	48.6	2.5
N.G ratio to total fuel including BOOT	%	94.10	98.20	4.3
N.G ratio for P.P connected to gas grid including BOOT	%	95.90	99.70	4
T. Length of Transmission Lines & Cables on HV & Extra HV	Km	51 956	53 854	3.6
T. Substation Capacities on HV and Extra HV	MVA	157 848	177 372	12.4
T. Length of Distribution MV&LV Lines and Cables	Km	539 865	551 102	2.1
T. Capacity for distribution transformers MV&LV	MVA	90 163	93 177	3.3
No. of Customers at Distribution Companies	M. Customer	37.1	37.9	2.2
No. of Customers at EETC	Customer	150	158	5.30
No. of Employees at EEHC and Subsidiaries	K. Employee	152.7	148.6	(2.7)

(1) There are isolated units with a total nominal capacity of 217.2 MW.

(2) Including EEHC power plants (Beni-Suef, Burrullus and New Capital) constructed in cooperation with Siemens AG.

(3) The solar component of kuraimat Solar/Thermal Plant is 20 MW.

(4) Including commissioning tests and EEHC plants.

(5) Connected to the national unified grid.

(6) In addition to the total consumed fuel at the isolated plants and reserves amounting to 25.6 K toe.

Generation of Electrical Energy

The Electricity Production Companies are:

- Cairo Electricity Production Company
- West Delta Electricity Production Company
- East Delta Electricity Production Company
- Upper Egypt Electricity Production Company
- Middle Delta Electricity Production Company
- Hydro-Power Plants Electricity Production Company

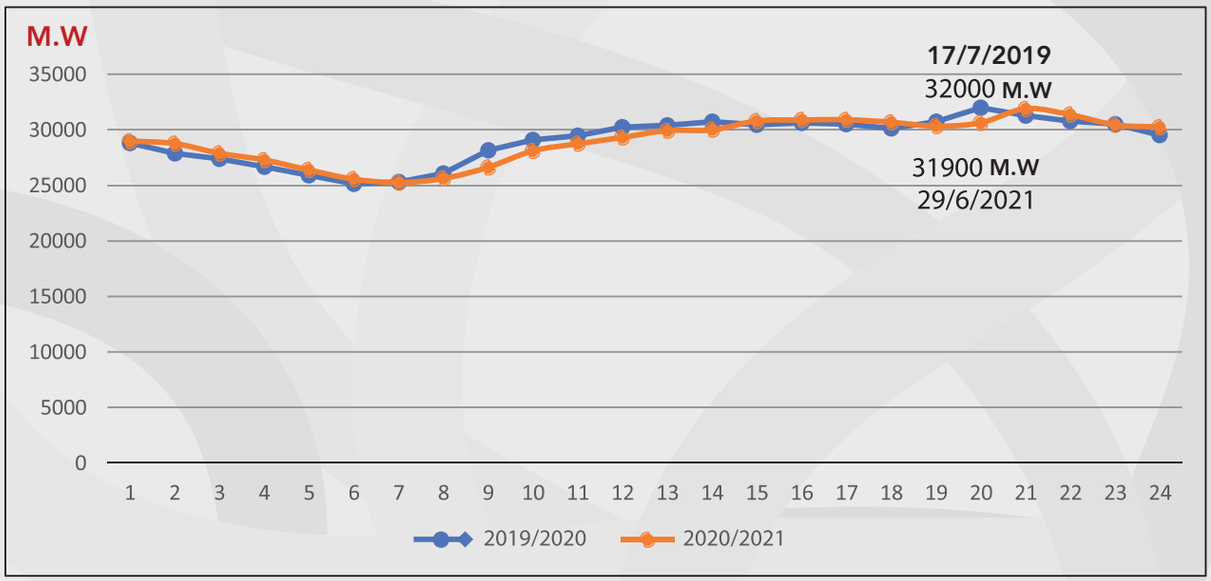
Objectives of the Production Companies:

1. Production of electrical energy at the affiliated power plants.
2. Management, operation and maintenance of the affiliated power plants, and execution of rehabilitation and replacement operations as necessary, all in full compliance with the directions of the National Control Center of the Unified Grid, particularly in relation to loads and maintenance of the generation units, and in accordance with the economical operation requirements to ensure optimum operation of the system technically and economically.
3. Selling electrical energy produced at the affiliated power plants to the Egyptian Electricity Transmission Company (EETC), and to Distribution Companies where energy is sent on medium voltages.
4. Implementation of power plant projects with the approval of EEHC s Board of Directors and according to their planned time schedules.
5. Conducting researches and studies within the scope of the Company s activities.
6. Carrying out any activities or works related to, or complementing, the Company s objectives.

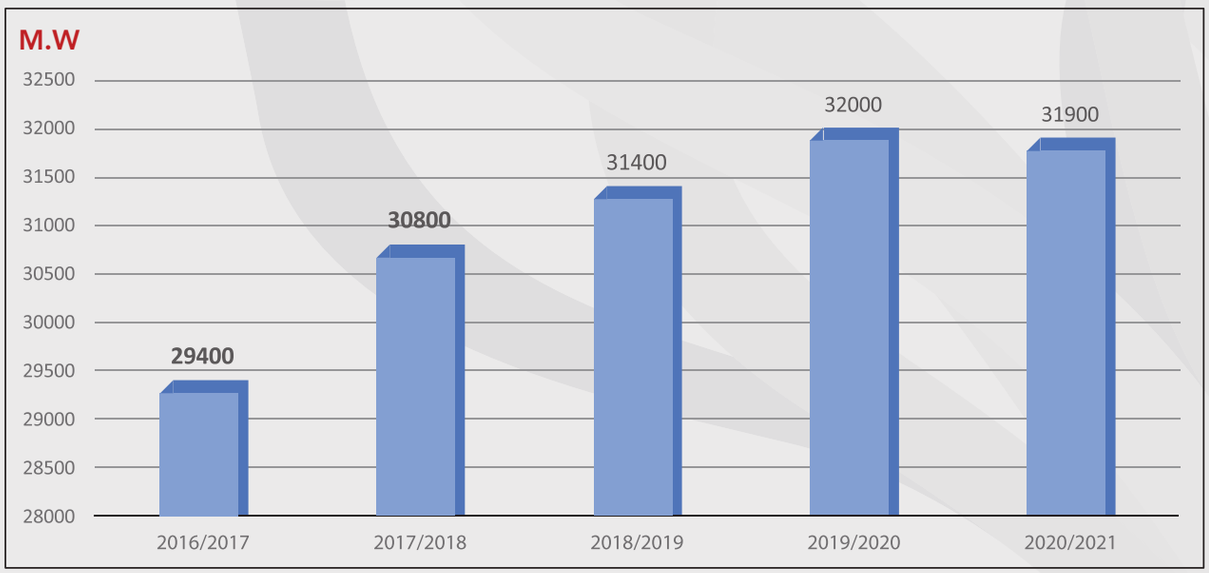
Peak Load

Description	2019/2020	2020/2021	Variation %
Peak Load (MW)	32000	31900	(0.3)

Peak Load Curve



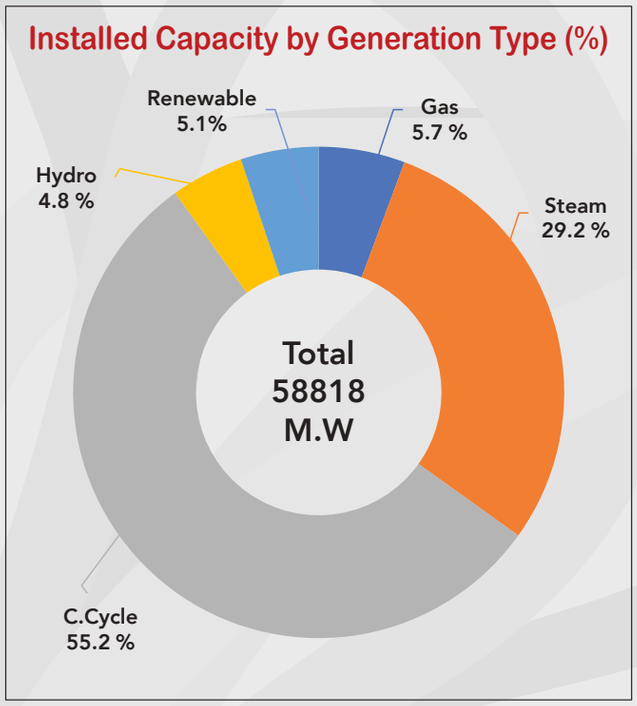
Development in Peak Load

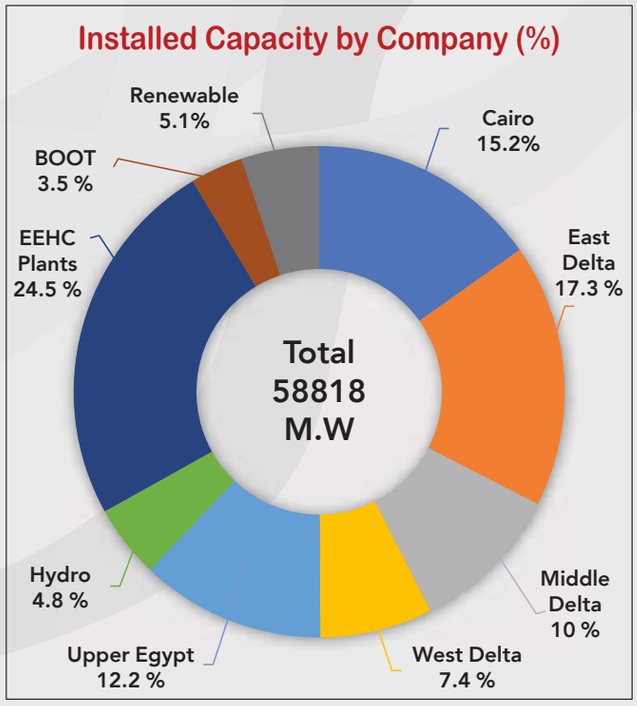


Installed Generation Capacities 30/6/2021

Description	2019/2020	2020/2021	Variation %
Installed Generation Capacity (MW)	59530	58818	(1.2)

Type / Co.	Cairo	East Delta	Middle Delta	West Delta	Upper Egypt	Hydro Power	EEHC Plants	Private Sector	Renewables	Total
Gas	785	1848	336	24	350	0	0	0	0	**3343**
Steam	3320	4156	420	3431	3804	0	0	2048	0	**17179**
Combined Cycle	4834	4200	5107	907	3000	0	14400	0	0	**32448**
Hydro	0	0	0	0	0	2832	0	0	0	**2832**
Renewables	0	0	0	0	0	0	0	0	3016	**3016**
Total (MW)	8939	10204	5863	4362	7154	2832	14400	2048	3016	58818





Development in Installed Generation Capacities by generation type (MW)

Description	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021
Gas	13345	5745	4055	4055	3343
Steam	15449	15449	16749	17179	17179
Combined Cycle	12630	30030	32470	32448	32448
Hydro	2800	2832	2832	2832	2832
Renewables	887	1157	2247	3016	3016
Total (MW)	**45111**	**55213**	**58353**	**59530**	**58818**

During the year 2020/2021:

- New & Renewable capacities include 1385 MW wind farms, 140 MW Koraimat Solar/Thermal power plant in which solar component amounts to 20 MW, 1465 MW solar (PV) in Benban region (private sector), and 26 MW (PV) in Kom-Ombo.
- In addition to isolated and reserve units with a total installed capacity of about 217.2 MW.

Installed Capacities of Power Plants (30/6/2021) (1)

Co.	Station		No. of Units	Installed Capacity (MW)	Actual Capacity (MW)	Fuel	Connected to Network	Commissioning Date
Cairo	Shoubra El-Kheima	(St)	4x315	1260	1260	N.G- H.F.O	83-84-85-1988	84-85-1988
	Shoubra El-Kheima	(G)	1x35	35	30	N.G- L.F.O	1985	1986
	Cairo West Ext.	(St)	2x330 + 2x350	1360	1360	N.G- H.F.O	94-95-2010-11	1994-2011
	Cairo South	(CC)	1x110 + 1x55	165	150	N.G- L.F.O	1994	1994
	Cairo North	(CC)	4x250 + 2x250	1500	1500	N.G- L.F.O	04-05-06-2007	04-06-2008
	El-Tibbeen	(St)	2x350	700	700	N.G- H.F.O	2010	2010
	6 October	(G)	4x150	600	600	N.G- L.F.O	2012	2012
	October Ext.	(CC)	4x150+1x318.7	918.7	918.7	N.G- L.F.O	2015-2018	2015-2019
	Giza North	(CC)	6x250 + 3x250	2250	2250	N.G- L.F.O	2014-2015	2014-2015
	Heliopolis	(G)	2x25	50	50	L.F.O	2015	2016
	Cairo East	(G)	2x25	50	50	L.F.O	2015	2016-2017
	El-Basateen	(G)	2x25	50	50	L.F.O	2015	2016
	Total (2)			**8939**	**8919**			
East Delta	Ataqa	(St)	2x150 + 2x300	900	840	N.G-H.F.O	76-83-1986	85-88-1989
	Abu Sultan	(St)	4x150	600	600	N.G-H.F.O	79-81-1984	83-84-1986
	New Shabab	(CC)	8x125 + 2x250	1500	1500	N.G-L.F.O	11-17-2018	2011-2018
	Arish	(St)	2x33	66	66	N.G	1993	1995-1996
	Oyoun Mousa	(St)	2x320	640	640	N.G-H.F.O	1997	2001
	New Damietta	(G)	4x125	500	500	N.G-L.F.O	2011	2011
	West Damietta	(CC)	4x125 + 1x250	750	750	N.G-L.F.O	2012-2013-2018	2012-2013-2018
	Damietta	(CC)	6x132 + 3x136	1200	1164	N.G-L.F.O	1989-1992	89-1993
	West Damietta Ext.	(CC)	4x125 + 1x250	750	750	N.G-L.F.O	2015-2018	2016-2018
	Masaeed	(G)	2x24.2	48.4	30	L.F.O	--	--
	Ain Sokhna	(St)	2x650	1300	1300	N.G-H.F.O	2014	2015
	Suez Thermal	(St)	1x650	650	650	N.G-H.F.O	2016	2017
	Ataqa	(G)	2x164 + 2x156	640	640	N.G-L.F.O	2015	2015
	Port Said Ext.	(G)	2x42	84	84	N.G-L.F.O	2015	2017
	Hurghada Ext.	(G)	6x48	288	288	N.G	2015	2017
	Sharm El-Sheikh Ext.	(G)	6x48	288	288	N.G- L.F.O	2015	2017
	Total (3)			**10204**	**10090**			

(St): Steam Unit (G): Gas Unit (CC): Combined Cycle Unit

Co.	Station		No. of Units	Installed Capacity (MW)	Actual Capacity (MW)	Fuel	Connected to Network	Commissioning Date
Middle Delta	Talkha	(CC)	8 x 24.7 + 2 x 45.9	290	236	N.G	1978-1979-1988	79-80-1989
	Talkha 210	(St)	2 x 210	420	360	N.G-H.F.O	1992-1994	1993-1995
	Talkha 750	(CC)	2 x 250 +1 x 250	750	750	N.G	2006-2010	2006-2010
	Nubaria	(CC)	6 x 250 + 3 x 250	2250	2250	N.G-L.F.O	2005-06-09-10	2005-2006-10
	Mahmoudeya	(CC)	8 x 25+ 2 x 58.5	317	268	N.G-L.F.O	1982-1994	1983-1995
	New Mahmoudeya	(G)	2 x 168	336	336	N.G-L.F.O	2015	2016
	El-Atf	(CC)	2 x 250 + 1 x 250	750	750	N.G-L.F.O	2009-2010	2009- 2010
	Banha	(CC)	2 x 250+ 1 x 250	750	750	N.G-L.F.O	2013-2014	2014-2015
	Total			**5863**	**5700**			
West Delta	Kafr El-Dawwar	(St)	2 x 110	220	170	N.G-H.F.O	84-1985	84-1986
	Damanhour Ext.	(St)	1 x 300	300	300	N.G-H.F.O	1990	1992
	Damanhour	(CC)	4 x 24.6 + 1 x 58	156.4	130	N.G-L.F.O	1984-1994	1985-1995
	New Abu Qir	(St)	2 x 650	1300	1300	N.G-H.F.O	2012	2012-2013
	Abu Qir	(St)	4 x 150 + 1 x 311	911	780	N.G-H.F.O	82-83-1990	83-84-1991
	Abu Qir	(G)	1 x 24.3	24.3	23	L.F.O	1982	1983
	Sidi Krir 1-2	(St)	2 x 320	640	640	N.G-H.F.O	1998-1999	1999-2000
	Sidi Krir	(CC)	2 x 250 + 1 x 250	750	750	N.G-L.F.O	2009-2010	2009-2010
	Matrouh	(St)	2 x 30	60	60	N.G	1989	1990
	Total			**4362**	**4153**			
Upper Egypt	Walideya	(St)	2 x 300	600	600	H.F.O	1992-1997	1992-1997
	Kuriemat	(St)	2 x 627	1254	1254	N.G-H.F.O	1997-1998	1997-1998
	Kuriemat 1	(CC)	2x250+1x250	750	750	N.G	2006-2007-2008	2007-2009
	Kuriemat 2	(CC)	2x250+1x250	750	750	N.G	2008-2010	2009-2011
	Assiut West	(CC)	8 x 125 +2 x 250	1500	1500	N.G-L.F.O	2015-2018	2015-2019-2020
	South Helwan	(ST)	3x650	1950	1950	N.G-H.F.O	2018-2019	2019
	New Assiut	(G)	2 x 25	50	50	L.F.O	2015	2016
	Red Assiut	(G)	4 x 25	100	100	L.F.O	2015	2016
	Samalout	(G)	2 x 25	50	50	L.F.O	2015	2016-2017
	Malawy West	(G)	2 x 25	50	50	L.F.O	2015	2017
	Gerga	(G)	2 x 25	50	50	L.F.O	2015	2016
	Bany Ghaleb	(G)	2 x 25	50	50	L.F.O	2015	2016
	Total [4]			**7154**	**7154**			
EEHC Plants	Burullus	(CC)	8 x 400 + 4 x 400	4800	4800	N.G	2016-2017-18	2017-2018
	Beni Suef	(CC)	8 x 400 + 4 x 400	4800	4800	N.G	2016-2017-18	2017-2018
	New Capital	(CC)	8 x 400 + 4 x 400	4800	4800	N.G	2016-2017-18	2017-2018
	Total			**14400**	**14400**			

(St): Steam Unit (G): Gas Unit (CC): Combined Cycle Unit

Co.	Station		No. of Units	Installed Capacity (MW)	Actual Capacity (MW)	Fuel	Connected to Network	Commissioning Date
Hydro plants	High Dam		12 x 175	2100	2100	Hydro	1967	1967
	Aswan Dam I		7 x 40	280	280	Hydro	1960	1960
	Aswan Dam II		4 x 67.5	270	270	Hydro	1985	1985-1986
	Esna		6 x 14.28	86	86	Hydro	1993	1993
	Naga Hamadi		4 x16	64	64	Hydro	2008	2008
	Assiut		4 x 8	32	32	Hydro	2018	2018
	Total			**2832**	**2832**			
New & Renewable	Zafarana		105x0.6 + 117x0.66 + 473x0.85	542.3	542.3	Wind	From 2001:2008 (on phases)	From 2007:2010 (on phases)
	Gabal El-Zeit		290 x 2	580	580	Wind	2015-16-18	2016-18-19
	Ras Gharib (Shuquiir)		125 x 1.2	262.5	250	Wind	2019	2019
	Kuriemat Solar/Th		1x70 + 1x50 + 1x20	140	80	Solar/ N.G	2010	2011
	Benban (PV)		27x50 + 1x30 + 3x20 + 1x25	1465	1465	Solar	2017-2018-19	2018-2019
	Kom Ombo		1x26	26	22	Solar	2020	2020
	Total			**3016**	**2939**			
Private Sector	Suez Gulf	(St)	2 x 341.25	682.5	682.5	N.G-H.F.O	2002	2003
	Port Said East	(St)	2 x 341.25	682.5	682.5	N.G-H.F.O	2002	2003
	Sidi Krir 3.4	(St)	2 x 341.25	682.5	682.5	N.G-H.F.O	2001	2002
	Total			**2048**	**2048**			
Grand Total				**58818**	**58234**			

(St): Steam Unit **(G): Gas Unit** **(CC): Combined Cycle Unit**

(1) In addition to 217.2 MW isolated and reserve units.

(2) Cairo Electricity Production Company:

- Wadi-Houf Gas Power Plant with a capacity of (3x33.3) MW was scrapped on 14/7/2020.
- Cairo South Gas Power Plant with a capacity of (3x110) MW was scrapped on 26/1/2021.
- Cairo West 9 Steam Power Plant of 650 MW was connected to the national grid for the first time on 3/3/2021.

(3) East Delta Electricity Production Company:

- The (2x33.5) MW Old Shabab Power Plant, the (2x24.2+1x23.7) MW Sharm El-Sheikh Power Plant, and the (3x24.3+3x23.4) MW Hurghada Gas Power Plant were all scrapped on 10/10/2021.

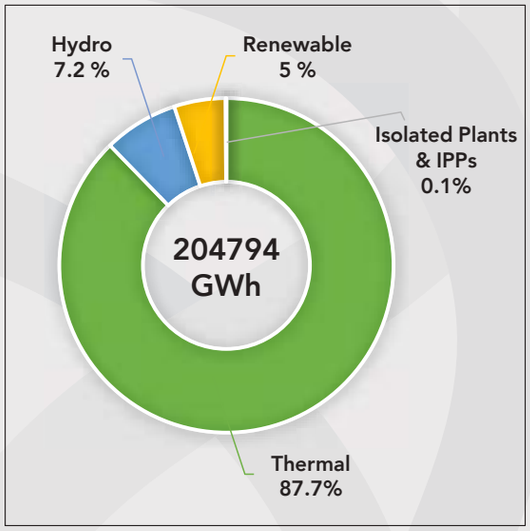
(4) Upper Egypt Electricity Production Company:

- Assiut-Walideya 3 Steam Power Plant of 650 MW was connected to the national grid for the first time on 24/4/2021.

Generated and Purchased Energy*

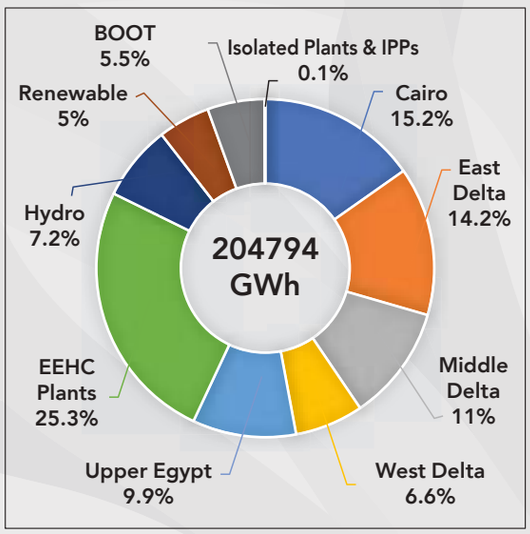
By Generation Type (GWh)

Type		2019/2020	2020/2021	Variation%
Steam	Subsidiaries	43839	41037	(6.4)
	Private Sec.	11408	11188	(1.9)
Gas	Subsidiaries	3464	2733	(21.1)
Combined Cycle	Subsidiaries	73367	72951	(0.6)
	EEHC Stations	41422	51757	24.9
Total Thermal*		**173500**	**179666**	**3.6**
Hydro		15038	14769	(1.8)
New & Renewable	Wind	4233	5257	24.2
	Solar	4430	4945	11.6
Total Grid		197201	204637	3.8
Isolated Units & Reserve		136.4	133	(2.6)
Purchased from IPP s		19.5	24	20.5
Grand Total*		**197357**	**204794**	**3.8**



By Production Company (GWh)

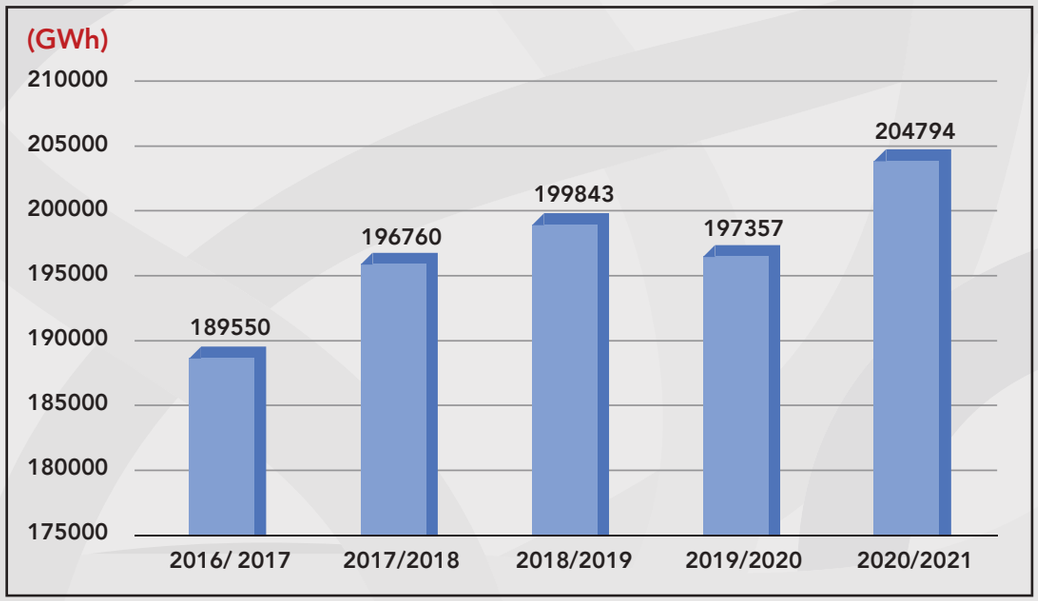
Company	2019/2020	2020/2021	Variation%
Cairo	31715	31213	(1.6)
East Delta	28579	29152	2.1
Middle Delta	23071	22603	(2)
West Delta	15601	13433	(13.9)
Upper Egypt	21704	20320	(6.4)
EEHC Plants	41422	51757	24.9
Hydro plants	15038	14769	(1.8)
New & Renewable	8663	10202	17.8
Private Sector	11408	11188	(1.9)
Total Grid	197201	204637	3.8
Isolated Units & Reserve	136.4	133	(2.6)
Purchased from IPP s	19.5	24	20.5
Grand Total*	**197357**	**204794**	**3.8**



* Including Commissioning tests.

Development in Generated and Purchased Energy*

Description	2019/2020	2020/2021	Variation %
Generated and Purchased Energy (GWh)	197357	204794	3.7



* Including Commissioning tests, private sector, isolated power plants and energy purchased from industrial companies.

Variant Statistics of Power Plants 2020/2021

Co.	Station	Gross Gen. GWh	Net Gen. GWh	Consumed Power %	TOTAL fuel K toe	Fuel consump gm/KWh	EFF. %	Peak load MW	load Factor %	Cap. Factor%	AV. Factor%
Cairo	Shoubra El-Kheima	5621.1	5344.6	4.9	1345.7	239.4	36.8	1205	53.3	50.9	88.4
	Cairo West.	1983.4	1842.6	7.1	437.4	220.5	39.8	688	33	16.7	78.1
	9th Cairo West*	553.8	520.6	6	137.7	248.6	35.3	0	0	0	
	Cairo South I (G)	268.9	264.5	1.6	86.4	321.3	27.3	176	17.4	36.3	58.9
	Cairo South II (C.C)	995.4	971.2	2.4	207	208	42.2	148	76.8	75.8	87.3
	Cairo North	7782.7	7615.1	2.2	1283.1	164.9	53.2	1355	65.6	59.2	84.7
	Tebbin	2600.1	2404.6	7.5	564.8	217.2	40.4	645	46	42.4	83.9
	6 October	364	351.7	3.4	109	299.5	29.3	605	6.9	6.9	97.3
	6 October EXT.	3327	3231.1	2.9	596.2	179.2	49	606	62.7	41.3	94.9
	Giza North	7712.9	7564.9	1.9	1277.4	165.6	53	1868	47.1	39.1	96.4
	Portable units	3.9	3.65	7.8	1.12	287.2	31	46	1	0.30	99.4
	Total	**31213**	**30114.5**	**3.5**	**6046**	**193.70**	**45.3**	**5739**	**60.9**	**39.58**	**89.1**
East Delta	Ataka	206.9	184	11.1	49.3	238.3	36.8	350	6.7	2.8	84.2
	Abu Sultan	1201.8	1081.1	10	302.7	251.9	34.8	410	23.5	22.9	83.7
	New Gas Shabab	7606	7422.3	2.2	1373.9	180.6	48.6	1412	61.5	57.9	89.4
	Shabab	0	-0.2	0	0	0	0	0	0	0	100
	Arish	430.7	397.7	7.7	114.2	265.1	33.1	60	82	74.5	96
	Oyoun Mousa	2000.1	1880.2	6	441.4	220.7	39.8	580	39.4	35.7	94.3
	New Gas Damietta	190.9	179.2	6.13	52.7	276.1	31.8	506	4.3	4.4	100
	West Damietta 1	2313.3	2253.8	2.57	417	180.3	48.7	720	36.7	35.2	90
	West Damietta 2	1318.9	1275.2	3.31	235.5	178.6	49.1	517	29.1	20.1	99.2
	Damietta |(C.C)	4350.1	4242.2	2.5	833.3	191.6	45.8	1031	48.2	42.7	93.6
	Ein-Sokhna	4051.5	3925	3.1	842.3	207.9	42.2	942	49.1	35.6	90.4
	Suez Thermal	3579.1	3454.6	3.5	761.6	212.8	41.2	650	62.9	62.9	88
	Ataka G	331.6	321.1	3.2	87.3	263.3	33.3	658	5.8	5.91	97.9
	Sharm El-Sheikh ExT	86.1	81.5	5.3	20.4	236.9	37.1	265	3.7	3.41	100
	El-Huraghda ExT	1482.5	1467.5	1	355.2	239.6	36.6	247	68.5	58.8	97.9
	El-Huraghda	0	-0.2	0	0	0	0	0	0	0	100
	Sharm El-Shikh	0	-0.2	0	0	0	0	0	0	0	100
	Port Said	1.8	1.3	30.4	0.42	231.3	37.6	65	0.3	0.2	100
	El Masaid	0.4	0.38	13	0.25	567.6	14	13	0.4	0.2	80.7
	Total	**29152**	**28166.7**	**3.4**	**5888**	**202**	**43.5**	**5579**	**60**	**32.8**	**92**

Generation of Electrical Energy

Co.	Station	Gross Gen. GWh	Net Gen. GWh	Consumed Power %	TOTAL fuel K toe	Fuel consump gm/KWh	EFF. %	Peak load MW	load Factor %	Cap. Factor%	AV. Factor%
Middle Delta	Talkha (St)	540.6	492.3	8.9	139.1	257.3	34.1	330	18.7	17.1	93.2
	Talkha (C.C)	107.3	99.6	7.2	34.4	320.6	27.4	182	6.7	5.2	100
	Talkha (750)	5303.9	5205.3	1.9	826.8	155.9	56.3	751	80.6	80.7	96.2
	Banha (C.C)	3056	2996.3	2	490.9	160.6	54.6	785	44.4	46.5	90.8
	Nubaria (C.C)	8709.9	8515.7	2.2	1427.1	163.8	53.6	2169	45.8	55.5	95.6
	Mahmoudia (C.C)	151.7	126.4	16.7	48.1	317.1	27.7	210	8.2	6.5	98.9
	El-Atf (C.C)	4731.4	4626.9	2.2	776	164	53.5	802	67.3	72	88.7
	New Mahmoudia (G)	2.21	-0.38	117.3	0.7	323.1	27.6	156	0.2	0.1	99.9
	Total	**22603**	**22062**	**2.4**	**3743**	**165.6**	**53.0**	**4648**	**55.51**	**45.3**	**94.6**
West Delta	Abu Kir	1001.9	926.7	7.51	242.20	241.7	36.3	370	31	14.7	96.4
	New Abu Kir	4471.3	4293	3.99	963.19	215.4	40.7	1100	46.4	39.3	98
	Sidi Krir	908.3	835.2	8.05	203.58	224.1	39.1	638	16.3	16.2	93.7
	Kafr El-Dawar	0	-6.53	0	0.09	0	0	0	0	0	100
	Damanhour	1887.4	1824.4	3.34	430.54	228.1	38.5	300	71.8	71.8	93.3
	Matrouh	378.2	351.6	7.03	107.36	283.9	30.9	289.5	78.5	72	89.7
	Sidi Krir (C.C)	4785.7	4656.8	2.69	764.47	159.7	54.9	750	72.8	72.8	87.7
	Damanhour(C.C).	0	-3.23	0	0	0	0	0	0	0	100
	Total	**13433**	**12877.9**	**4.13**	**2711**	**201.9**	**43.5**	**2340**	**65.53**	**36.9**	**95**
Upper Egypt	Kuriemat	447.3	408.1	8.8	100.5	224.6	39.1	627	8.1	4.1	99.8
	South Helwan	6864.9	6660.6	3	1377.3	200.6	43.7	1338	58.6	40.2	81.1
	Assiut-Walideya 3*	136.6	104.7	23.3	38.3	280.4	31.3	20	0	0	0
	Waledaya	2171.6	2066.3	5	503.6	231.9	37.8	483	51.3	41.3	85.1
	Kuriemat 1 (C.C)	1383.1	1348.7	3	219.5	158.7	55.3	728	21.7	21.1	97.3
	Kuriemat 2 (C.C)	3522.6	3446.5	2.2	548.6	155.7	56.3	839	47.9	53.6	99.4
	Assiut West (C.C)	5792.9	5614.9	3.1	1043.6	180.2	48.7	1201	55.1	44.1	96.4
	Portable units	0.7	-4.8	822.5	0.3	447.8	19.6	44	0.73	0.02	100
	Total	**20320**	**19645**	**3.3**	**3832**	**188.6**	**46.5**	**3297**	**69.9**	**32.4**	**92.5**
Hydro Plants	High Dam	10328.9	10262.4	0.6	-	-	84.8	2400	49.1	56.2	93.5
	Aswan Dam I	1733.1	1700.6	1.9	-	-	84.5	280	70.7	70.7	92
	Aswan Dam II	1580.7	1570.26	0.7	-	-	88.7	270	66.8	66.8	82.5
	New Esna	453.2	447	1.4	-	-	90.4	84.4	61.3	60.4	92.3
	Naga Hamadi	438.9	432.6	1.4	-	-	87.7	66.2	75.7	78.3	96.9
	Assiut	234.4	228.2	2.6	-	-	82.4	43.5	61.6	83.6	98.6
	Total-Hydro	**14769**	**14641**	**0.9**	**-**	**-**	**-**	**2977**	**56.6**	**59.5**	**92.4**
EEHC Plants	Beni Suef	17359.4	16749.5	3.5	2630.7	151.5	57.9	3372	58.8	41.3	87.7
	Burulls	21460.7	20786.5	3.1	3220.3	150.1	58.5	4291	57.1	51	88.8
	New Capital	12937.4	12477.2	3.6	1963.5	151.8	57.8	2702	54.7	30.8	86
	Total	**51757**	**50013.2**	**3.4**	**7814.5**	**151**	**58.1**	**-**	**-**	**41**	**87.4**

Co.	Station	Gross Gen. GWh	Net Gen. GWh	Consumed Power %	TOTAL fuel K toe	Fuel consump gm/KWh	EFF. %	Peak load MW	load Factor %	Cap. Factor%	AV. Factor%
Private Sector	Suez Gulf	3709.8	3493.8	5.8	807.4	217.7	40.3	-	-	62.1	-
	Port Said East	3495.7	3247.2	7.1	756.3	216.4	40.5	-	-	58.5	-
	Sidi Krir 3&4	3982.5	3700	7.1	809.9	203.4	43.1	-	-	66.6	-
	Total BOOT	**11188**	**10441**	**6.7**	**2374**	**212.2**	**41.3**	**-**	**-**	**62.4**	**-**
Renewable Energy	Wind	5257	5257	0	-	-	-	-	-	-	-
	Kuriemat Solar/ST	478.9	472.4	1.4	-	-	-	-	-	-	-
	Benban PV	4412	4201	4.8	-	-	-	-	-	-	-
	Kom Ombo	54.2	54	0.4	-	-	-	-	-	-	-
	Total Renewable	**10202**	**9984.4**	**2.1**	**-**	**-**	**-**	**-**	**-**	**-**	**-**
Total		**204637**	**197945.4**	**3.2**	**32408**	**180.4**	**48.6**	**-**	**-**	**-**	**-**
	Isolated Plants	133	130	2.3	-	-	-	-	-	-	-
	Purchased from IPPs	24	24	0	-	-	-	-	-	-	-
Grand Total *		**204794**	**198099**	**3.2**	**32408**	**180.4**	**48.6**	**-**	**-**	**-**	**-**

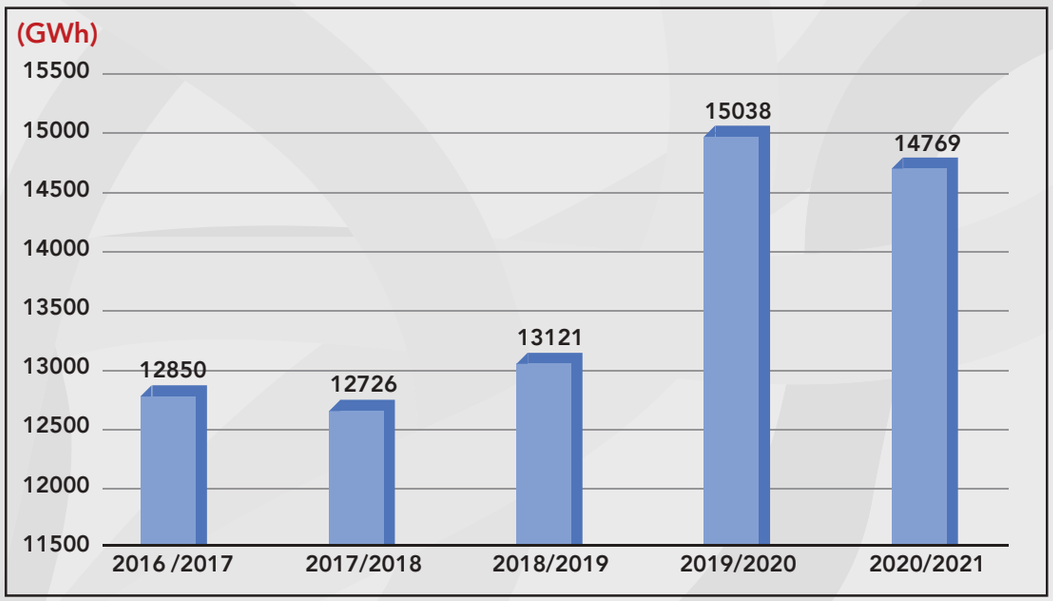
* Including commissioning tests.

- Fuel consumption rate gm/KWh (gen.) = Quantity of fuel consumed (toe)/Quantity of energy generated (GWh)
- Average load MW = (Energy generated MWh / Number of hours)
- Load Factor % = (Average load / Maximum load during the period) × 100
- Capacity factor % = (Average load / installed capacity) × 100
- Thermal Efficiency % = {860 × 1000 / (9800 × Av. Fuel Consumption (gen.))} × 100.
- Availability Factor % = (Operation hours + reserve hours) / period hours ×100.

Hydroelectric Power

Description		High Dam	Aswan 1	Aswan 2	Essna	Naga Hammady	Assiut	FY 2020/2021
Generated Energy	(GWh)	10329	1733	1581	453	439	234	14769
Peak Load	(MW)	2400	280	270	84.4	66.2	43.5	2977
Maximum daily generated energy	(GWh)	51.8	7.8	6.5	2	1.6	1.6	67.8
Minimum daily generated energy	(GWh)	10.1	0.2	0	0.2	0.6	0.1	9.1
Efficiency	(%)	84.8	84.5	88.7	90.4	87.7	82.4	-----

Development in Generated Hydroelectric Energy



Fuel

- The policy of operating the existing thermal power plants is based on considering natural gas as the primary fuel due to its evident economic and environmental advantages.
- The use of natural gas at power plants, including private sector power plants, connected to the gas grid reached 99.7% in 2020/2021, representing 98.2% of the total fuel consumption.

Fuel Consumption by Type *

Description	H.F.O.		N.G.		L.F.O. (Ordinary & Special)		Total K toe
	K tons	K toe	Million m^3	K toe	K tons	K toe	
Total fuel 2019/2020	1858.0	1861.0	35927.0	30249.0	22.7	23.5	32133
Total Fuel 2020/2021	584.7	582.0	37787.0	31821.2	4.6	4.8	32408
Variation %	(68.5)	(68.7)	5.2	5.2	(79.7)	(79.6)	0.9

toe: ton of oil equivalent

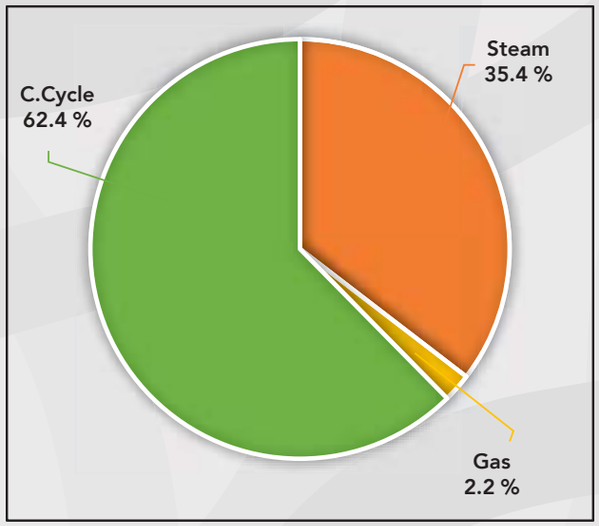
Fuel consumed in the year 2020/2021 includes:

- Fuel for commissioning tests, BOOT power plants and EEHC plants.
- Consumed fuel in private sector power plants amounts to 2797 million m3 of natural gas with a total equivalent to about 2374 K toe.
- Consumed fuel in EEHC power plants (Burullus, New capital, Beni-Suef) amounts to 9377 million m3 of natural gas with a total equivalent to about 7814 K toe.
- Excluding fuel consumed in isolated plants amounting to 25.6 K toe.

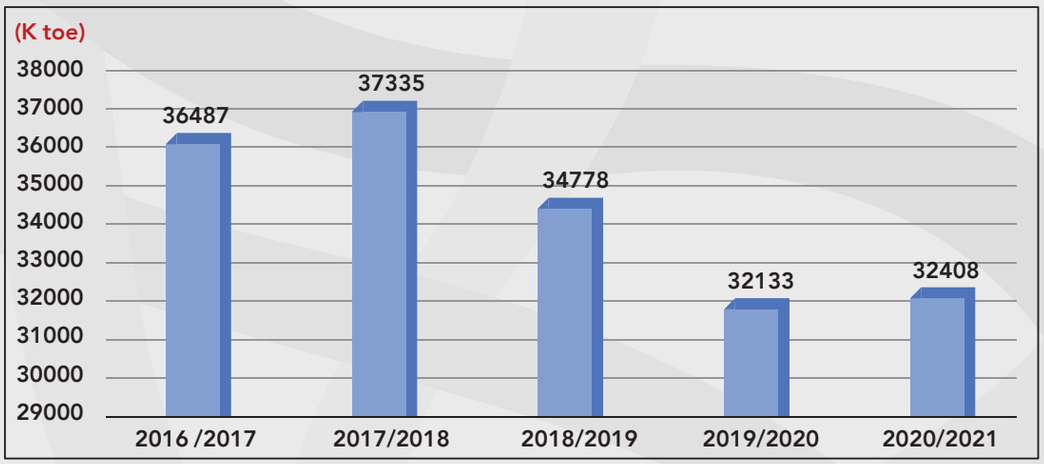
Fuel Consumption by Generation Type (k toe)

Type		2019/2020	2020/2021	Variation %
Steam	Subsidiaries	9865	9103	(7.7)
	Private Sec.	2445	2374	(2.9)
Gas	Subsidiaries	1002	714	(28.7)
Combined Cycle	Subsidiaries	12516	12403	(0.9)
	EEHC Plants	6305	7814	23.9
Total		32133	32408	0.9

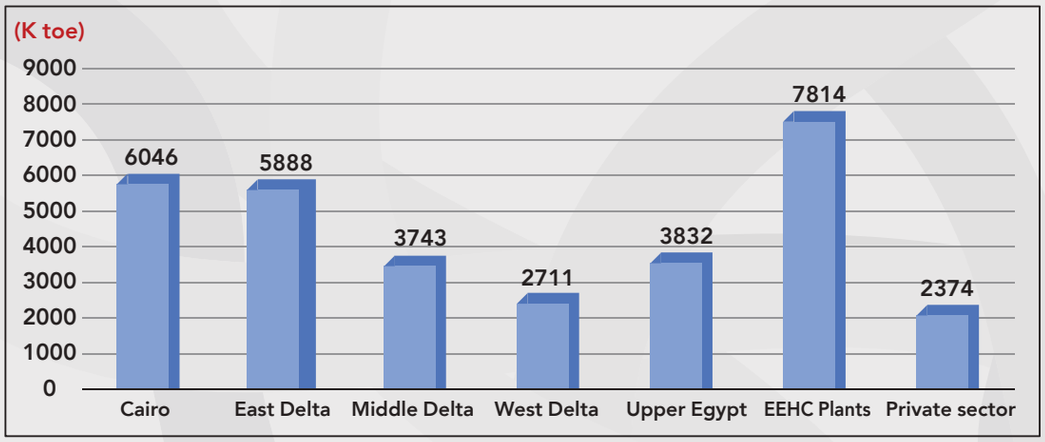
* Including fuel for commissioning tests.



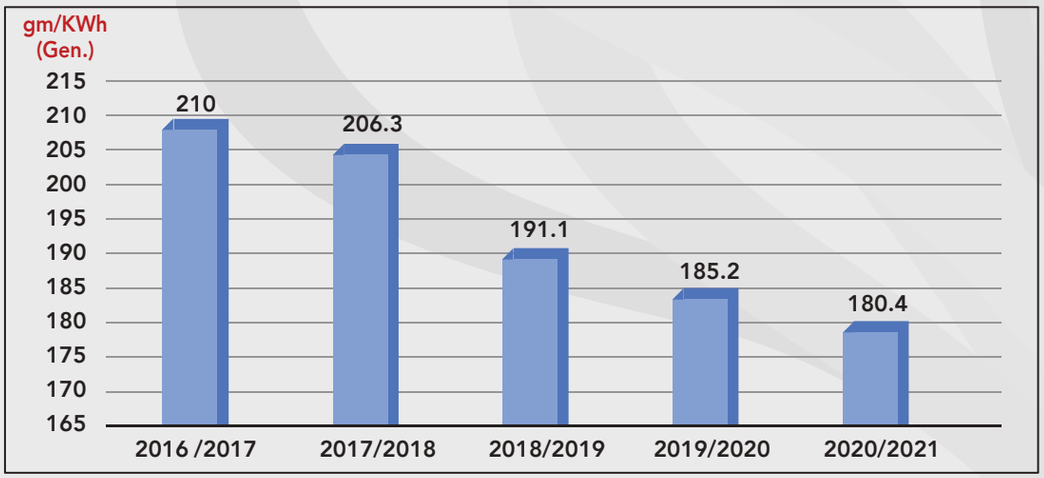
Development in Total Fuel Consumption*



Fuel Consumption by Companies 2020/2021*



Development in Fuel Consumption Rate (Gen.)*



* Including fuel for commissioning tests.

Isolated Power Plants and Reserve Units

In some electricity companies there are isolated power plants and reserve units that are not connected to the Unified National Grid. These are mainly constructed to meet the requirements of remote areas of electricity needed for touristic projects and other purposes with a total installed capacity amounting to 217.2 MW in addition to 5 MW wind farm in Hurghada.

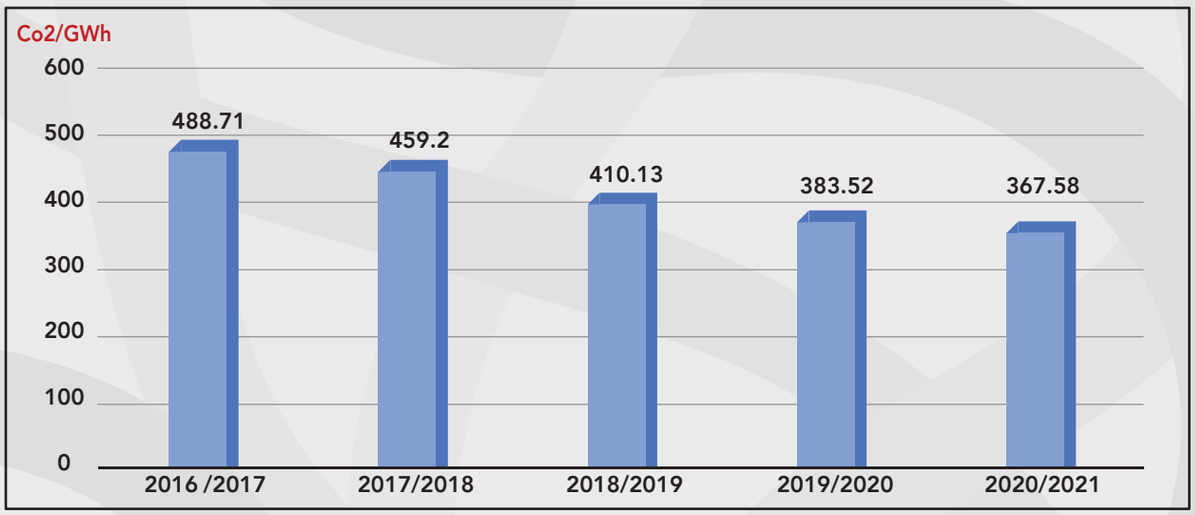
Installed Capacity and Energy Generated from Isolated and Reserve Units

Company	Type	Installed Capacity (MW)		Energy Generated (GWh)		Energy Sent (GWh)	
		2019/2020	2020/2021	2019/2020	2020/2021	2019/2020	2020/2021
Canal	Diesel fuel	122.0	108.0	51.5	34.1	50.7	33.9
	Solar	14.0	14.0	4.97	10.4	4.97	10.4
Beheira	Diesel fuel	30.6	33.9	34.9	42.5	33.5	40.8
	Solar	10.2	10.3	11.2	11.9	11.2	11.9
Middle Egypt	Diesel fuel	23.4	41.8	27.5	28.8	26.4	27.6
	Solar	6.2	6.3	6.3	5.3	6.3	5.2
Upper Egypt	Diesel fuel	2.9	2.9	0	0	0	0
Total	**Diesel fuel**	**178.9**	**186.6**	**113.9**	**105.4**	**110.7**	**102.3**
	Solar	**30.4**	**30.5**	**22.5**	**27.5**	**22.5**	**27.5**
	Diesel fuel & Solar	**209.3**	**217.2**	**136.4**	**132.9**	**133.1**	**129.8**

- The total consumed fuel amounted to 25.6 K toe.

Environmental Indicator

Development in Environmental Indicator



The environmental indicator of thermal power plants reached 367.58 tons CO2/GWh in 2020/2021, and this is due to:

- Increasing the share of new and renewable energies (wind / solar / hydro) in the generation mix to reach 12.2% of the total generated energy in 2020/2021.
- The increase in the natural gas participation rate to 98.2% of the total fuel consumption.
- The total fuel consumption rate improved to 180.4 gm/KWh in 2020/2021 for the following reasons:
  - » Operation of the power plants of the Holding Company (Burullus / Beni Suef / New Capital) characterized with their high efficiency and low fuel consumption rates, and the increase in their percentage rate in the total energy generated to 25.3%.
  - » The increase in the participation rate of the combined cycle generation in the production companies, including the power plants of the Holding Company, to reach 61% of the total generated energy.
  - » Operation of the steam plants operated at supercritical pressures with high efficiency and lower consumption rates, such as (Ain Sokhna, South Helwan, 9th Cairo West, and Assiut-Walideya 3).

Power Plant Projects

The 7th Five-Year Plan (2012-2017)

- The amended 7th five-year plan included the addition of 27401 MW from thermal power plants to the unified grid, including the fast-track plan and the power plant projects of the Holding Company at an estimated investment cost of USD 17.1 billion.
- These projects are implemented by the Electricity Sector and funded with soft loans from Arab and international financing institutions, in addition to implementing part of the Plan through (EPC + Finance) system.
- Continuous follow-up was made to the thermal power projects to identify the problems and obstacles facing their implementation in an attempt to find solutions and remedies and fix up some delays, until the completion of operation for the first time of 9th Cairo West and Assiut-Walideya 3 Steam Power Plants (the last power plants in the Plan) with a total capacity of 1300 MW by the end of 2020/2021.
- Thus, the operation of all thermal power stations of the Plan has been completed with total capacities of 27401 MW.

The 8th Five-Year Plan (2017-2022)

The 2400 MW Pump and Storage Power Project in Mount Attaqa, Suez, (proposed to be implemented under EPC + Finance System):

- On 3/9/2018 a contract was signed with Sinohydro during the official visit of the Egyptian President to Beijing/China, subject to completion of the general and special conditions and the technical specifications.
- During finalization of the contract technical documentation, there were contacts with the Ministry of International Cooperation to complete procedures for securing the required finance in coordination with the Chinese side in an amount of 85% of the initial cost of the project and providing EEHC with the financing terms to be considered towards completing the procedures for contracting.
- The date for starting implementation of the project will be identified in light of load growth and the increase in participation of new and renewable energies.

The 9th Five-Year Plan (2022-2027)

- A set of scenarios for the growth of peak load and demand for energy has been prepared up to the year 2029/2030 and plans for the expansion of generation capacities corresponding to these scenarios have been developed aiming to meet the peak load and energy demand with providing an appropriate reserve of generation capacities. The scenario that is most predicted to occur would be determined once the expected growth rates of the national economy are recognized, as well as the demise of the impacts of the Corona pandemic in future.

Information about Production Companies

Company	Geographical Zone	Head Office	Capital (in million pounds)	Ratio of Capital to EEHC Investments	Address	Phone & Website
Cairo	Greater Cairo	Cairo	2617.150	8.1%	22 Shanan St., Sabteya	02-25793054 02-25740550 www.cairoepc.com
East Delta	Governorates of Damietta, Ismaileya, Port Said, Suez, South Sinai, North Sinai, and the Red Sea	Ismaileya Governorate	5103.370	15.8%	Shebin El-koum St. next to RCC	064-3204590 064-3201492 www.edepco.com.eg
Middle Delta	Governorates of Daqahleya, Qalyoubeya (to the borders of Greater Cairo), in addition to Mahmoudeya City,Nubaria,Atf, and Koum Hamada in Beheira Governorate	Daqahleya Governorate	2207.235	6.8%	Compost road, Talkha	050-2524149 050-2524369 www.mdepc.gov.eg
West Delta	Governorates of Alexandria, Matrouh, and Beheira (excluding Mahmoudeya City, Nubaria, Atf, and koum Hamada)	Alexandria Governorate	1642.170	5.1%	7 Riyadh St, Gleem	03-5761375 03-5756722 www.wdpc-alx.com
Upper Egypt	Governorates of Giza (except for the extension of Greater Cairo), Fayoum, Beni-Suef, Minya, Assiut, New Valley, Sohag, Qena, Aswan, and Luxor	Giza Governorate	5463.855	16.9%	Next to Giza Zoo	02-37610578 02-33357086 www.ueep.com
Hydro Power Plants	Affiliated hydro power plants all over the Country	Aswan Governorate	433.160	1.3%	High Dam West Aswan	097-3480412 097-3481974 www.hpgc.com.eg

Transmission of Electrical Energy

In light of the Electricity Law no. 87 of 2015, the Egyptian Electricity Transmission Company (EETC) has become an independent company. As a primary measure, the Prime Minister s Decision no. 1959 of 2017 was issued in formation of the General Assembly of EETC and the activity of the Company has been included within the activities of the Holding Company, with incorporating the capital of EETC in the investments of the Holding Company until the separation process is completed.

Egyptian Electricity Transmission Company (EETC)

Company Name	Geographical Zone	Head Office	Capital (million EGP)	Ratio of Capital to EEHC s Investments	Address	Phone & Website
Egyptian Electricity Transmission Company (EETC)	Electricity transmission networks on ultra-high &high voltages across the country	Cairo	8721.010	26.9 %	Ramses St. Extension, Nasr City, Cairo	02/22618579 02/26843824 02/26835199 www.eetc.net.eg

Objectives of the Egyptian Electricity Transmission Company :

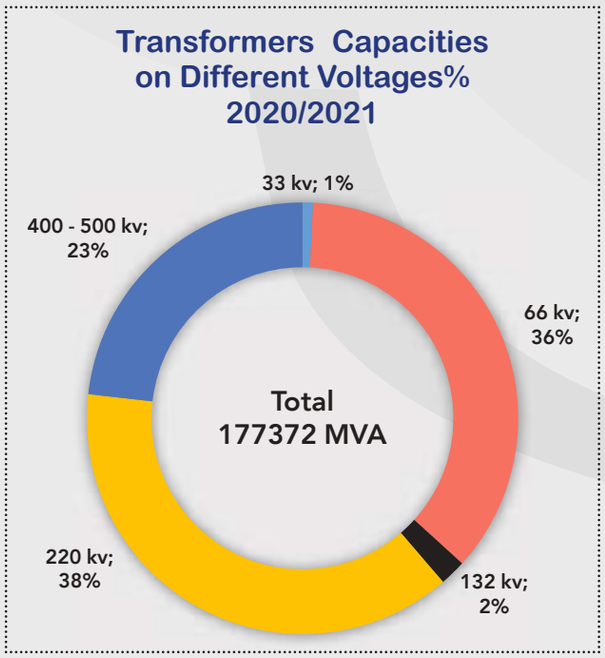
1. Operating the electricity transmission system in a manner that achieves efficiency, stability, and reliability.
2. Managing and maintaining the transmission network and implementing energy transmission projects on ultra-high & high voltages in an optimal economical way, and preparing studies and plans for load forecasts.
3. Coordinating with the Egyptian Electricity Holding Company in respect of studies related to the production and transmission of electricity to meet the needs of all consumers.
4. Implementing the projects of electricity interconnection and energy exchange with other countries in accordance with the agreements concluded in this regard.
5. Making information and statistics available to all parties of the Electricity Utility without discrimination.
6. Coordinating with the Nuclear Power Plants Authority (NPPA) to prepare studies in accordance with the requirements of the International Atomic Energy Agency (IAEA) for interconnection with the national electricity transmission network.
7. Coordinating with the Hydro Power Plants Executive Authority (HPPEA) and the New and Renewable Energy Authority (NREA) to prepare studies for interconnection with the national electricity transmission network.

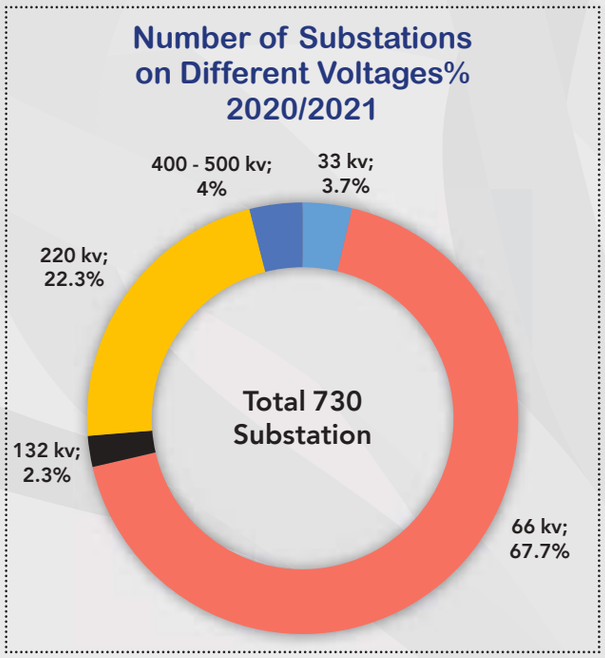
Transmission Network Statistics (30.6.2021)

Transformer Substations:

Description		2019/2020	2020/2021	Variation %
On Ultra High & High Voltages	Total Transformers' Capacity (MVA)	157848	177372	12.4
	Number of Substations	712	730	2.5
	Number of Transformers	2778	2874	3.4

Voltage (KV)	2019/2020			2020/2021		
	Capacity MVA	Substations (S.S.)	Transformers (Tr.)	Capacity MVA	Substation (S.S.)	Transformers (Tr.)
33	1436	28	107	1391	27	105
66	61097	488	2018	63773	494	2067
132	3437	17	78	3480	17	77
220	62203	157	512	67553	163	548
400-500	29675	22	63	41175	29	77
Total	157848	712	2778	177372	730	2874

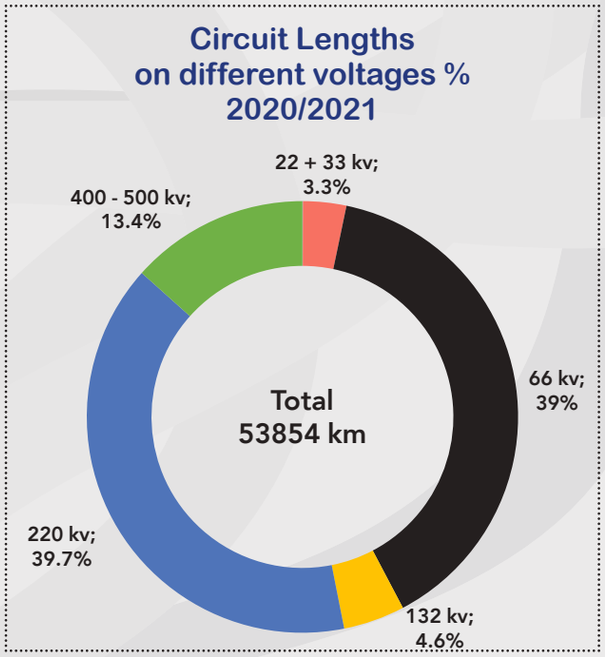




Total Lengths of Circuits (overhead lines & ground cables) Km:

Description		2019/2020	2020/2021	Variation %
On Ultra-High & High Voltages	Total Lengths of Circuits (km)	51956	53854	3.6

Voltage (KV)	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021
22	--	21	21	21	21
33	1790.5	1790.4	1692.1	1746	1746
66	19879.1	20018.4	20466	20719	21003
132	2485.1	2485	2485.1	2485	2485
220	18180.4	18465	18589	20700	21395
400-500	3982	4110.2	5578.8	6285	7204
Total (Km)	46317.1	46890	48832	51956	53854

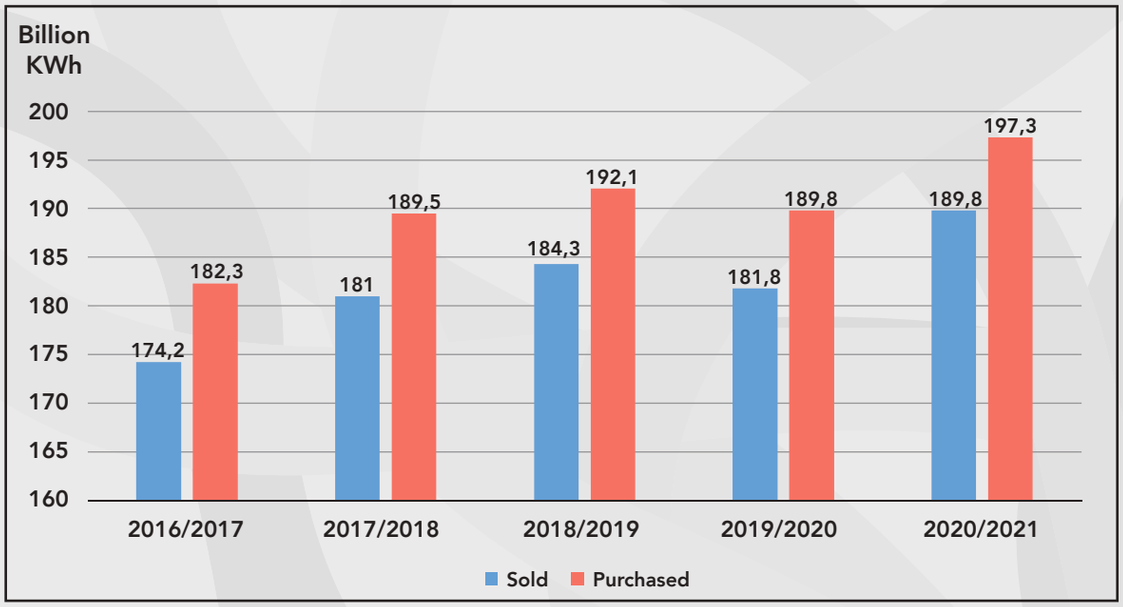


Total Purchased and Sold Energy

Description		2019/2020	2020/2021	Variation %
Purchased Energy	Billion KWh	189.8	197.3	4
Sold Energy	Billion KWh	181.8	189.8	4.4

- Energy sold by EETC in 2020/2021 includes:
  - 162.3 billion KWh to DISCOMs.
  - 27.5 billion KWh to customers, colonies, and in-kind energy exported to interconnection countries.

Energy Sold by EETC including Energy Sold to DISCOMs



Electrical Interconnection

- The Ministry of Electricity and Renewable Energy is keen on supporting and developing the unified national grid to transform Egypt into a regional and global hub for energy exchange between the Arab countries, Africa, and Europe.
- In line with this attitude, EEHC adopts new policies aimed at constructing an infrastructure for energy trade at regional and global levels by means of electrical interconnection with the neighboring countries through the existing projects between Jordan, Libya, Syria, Lebanon and Sudan as well as projects to be implemented with Saudi Arabia, Cyprus, Greece and Gulf Interconnection Authority.

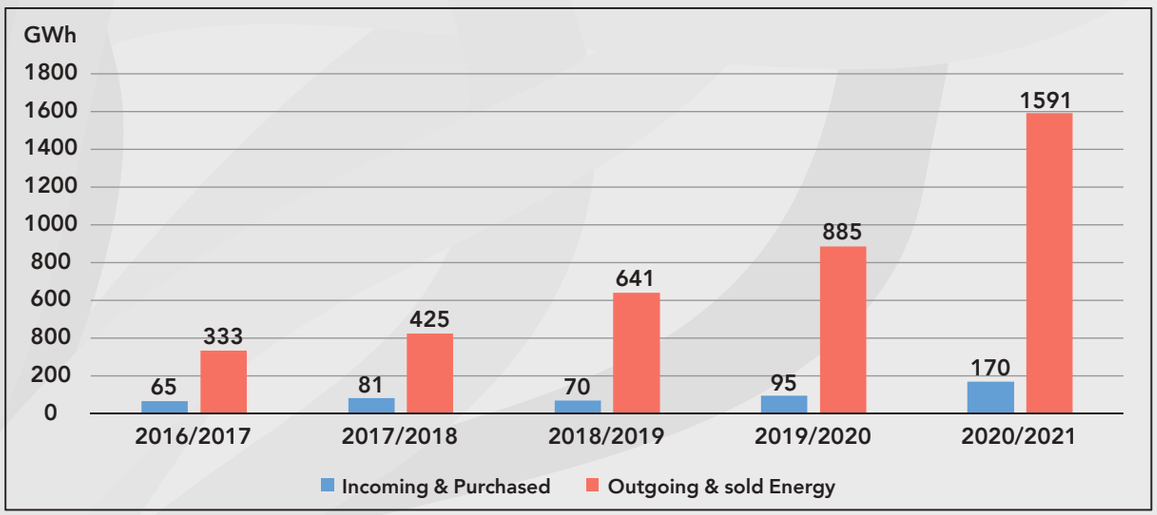
I. Regional Interconnection with Neighboring Countries:

Existing Dual Interconnection

Description	Egypt/Libya	Egypt/Jordan			Egypt/Sudan
Interconnection date	May 1998	October 1998			April 2020
Connectivity voltage (KV)	220	400			220
Inteconnection Countries	Libya	Jordan	Syria	Lebanon	Sudan
Outgoing & Sold Energy * (GWh)	610	492	-	-	489
Incoming & Purchased Energy * (GWh)	-	170	-	-	-

* Including in - Kind Energy.

Incoming and Outgoing Energy



Current Electrical Interconnection Projects

Egyptian / Jordanian Interconnection

- A contract was signed with the global consultant CESI to conduct a technical and economic feasibility study to raise the current capacity of the Egyptian / Jordanian interconnection line in coordination with the Jordanian side, allowing the possibility of energy exchange between Egypt and each of Lebanon, Syria, and Iraq through Jordan with a capacity of 2000 MW instead of 550 MW.

Egyptian / Libyan Interconnection

- The construction of the 500 KV (double-circuit quad-conductor) Burj El-Arab / Marsa Matrouh transmission line with a length of 255 km has already been completed and is currently being operated at a voltage level of 220 KV, where it is used in supporting the Egyptian / Libyan interconnection and be later powered at a voltage level of 500 KV after the expansion of both Burj El-Arab and Marsa Matrouh 500 KV substations and the entry of Dhaba'a nuclear substation in service. Coordination is underway with the Libyan side to raise the capacity of the existing line up to 2000 MW instead of 240 KW.

Egyptian / Sudanese Interconnection

- The Sudanese network has been fed from the Egyptian grid within Phase I of the electrical feeding at a capacity of up to 80 MW.
- Completion of Phase II of the project is underway to reach a capacity transmission of up to 300 MW by means of installing two Static Synchronous Compensators (STATCOM) at Merwi and Dongola substations in Sudan with a capacity of 150 Mvar each and 18-month implementation period.
- On 23.6.2021 the consultancy works was awarded to SNC Lavalin of Canada.

Egyptian / Saudi Interconnection

- The project aims to exchange 3000 MW between the two countries through the bipolar HVDC transmission technology at a voltage of ± 500 kV. The project is composed of three packages and all contracts for the project packages in both sides were signed on 10/5/2021.

Egyptian / Cypriot / Greek Interconnection

- The project aims to exchange electrical capacity of up to 2000 MW at a voltage of 500 using HVDC transmission system in two phases of 1000 MW each.
- Various scenarios are currently being considered to choose the most appropriate one technically and economically for the implementation of the interconnection line.
- Coordination is underway with the Cypriot and Greek sides to activate the Memoranda of Understanding that have already been signed.

Egyptian / Gulf Interconnection

- On 6.11.2019 a memorandum of understanding and a non-disclosure agreement were singed between the GCC Interconnection Authority (GCCIA) on the one part and the National Electric Power Co. of Jordan (NEPCO) and the Egyptian Electricity Transmission Company (EETC) on the other part. The GCCIA has appointed the consultant EGI to conduct a feasibility study for the project, where a white paper has been prepared to identify the principles of the proposed interconnection and the commercial model. A study is currently underway on the most appropriate technical and economic alternatives for implementing the interconnection line.

Egyptian / Greek Interconnection

- On 22.6.2021 a preliminary conception for the Egyptian / Greek electrical interconnection project was received from ELICASA for the transfer of renewable energy to Europe with a capacity of 3000 MW at a voltage level of ± 600 kV with total length of 1373 Km.
- Communication and coordination are underway with the Greek side to agree on the forthcoming steps in light of the memorandum of understanding to be signed between the two parties.

II. International Electrical Interconnection

Continental Electrical Interconnection and Electricity Market

- In light of the cooperation between the Ministry of Electricity and Renewable Energy and the New Partnership for Africa's Development "NEPAD" and the meeting held between the Minister of Electricity and the CEO of "NEPAD" with the Egyptian President to enhance that cooperation, the President of the Republic gave directions for the approval of Egypt's patronage of the Continental Electricity Interconnection Project in the form of technical support at the request of "NEPAD". The importance of the master plan for the Continental Interconnection Project is that it will evaluate the current status of the electrical interconnection networks, capacities, and future expansions within the five power pools in Africa and identify the electrical interconnection projects that will be selected in the second phase of the Priority Action Plan within the Infrastructure Program in Africa (PIDA PAP2). Several meetings are currently being held (through multimedia applications) with the five African power pools for continual coordination and communication during the study with regard to planning and modeling and to identify the gaps to reach a continental master plan that includes the master plans of the five power pools in Africa, which in turn will help implement the unified electricity market in Africa. The first phase of the study was completed in October 2020 and work is now underway on the second phase of the study.

EEHC s Membership in EAPP

- Egypt, with its history, location and human capabilities, is taking the lead in the electrical system in Africa, especially the electrical interconnection with African countries and pools, through Egypt's membership in the East African Power Pool (EAPP) with 11 member countries so far, led by Egypt with its huge capacities which represents 22% of the whole capacities of the African continent and about 70% of the capacities of EAPP, in addition to the efficiency, quality and safety of the Egyptian electrical system. Egypt participates actively in all events, meetings, and activities organized by the Pool through its assiduous participation in the meetings of the Council of Ministers and the Steering Committee of EAPP as well as its membership in the operation and planning committees and the Pool's electricity market.

- Over the past years, efforts have been exerted to establish a market for electricity trade by linking the member countries of the Pool to secure electrical capacities generated from renewable energies that are widely available in the African continent. There has been also great interest in linking EAPP with other power pools, where a study on the impacts of linking the power pools in East and South Africa was completed in 2018 with participation of the member countries of EAPP, and work is now underway in the operation and planning committees and the electricity market of the Pool through participation in the following activities and projects:

1. A Study on Operational Readiness of EAPP Countries:

- Egypt participates with EAPP member countries in collaboration with the World Bank in the study on operational readiness of the Pool members in accordance with the decisions of EAPP Ministerial Council meeting no. (14) held on 21.2.2019 in Entebbe, Uganda, that include the completion of implementation of the 10-Year Strategic Plan of the Pool. The study included the following:
- **Task (1) - Network Code Compliance:** Implementing and achieving compliance with the network code of EAPP (IC Compliance), where the members of the Operational Committee, with the Project Consultant, reviewed all operational points and identified existing gaps in each country to be solved. Egypt ranked first in respect of compliance of the national grid with the network code of the Pool, which contributed to the work of the Automatic Generation Control (AGC).

  The Operational Committee members, together with the Project Consultant, also developed and prepared Operation Guidelines based on the current interconnection code (IC). Work is currently underway to start dividing the Pool into two synchronizing regions.
- **Task (2) - Balance of Capacities:** Preparing annual reports on the study of the balance of capacities of the Pool countries (Regional Power Balance Statement) aiming to determine the surplus and deficit in capacity for each country for a period of ten years until 2030, on the basis of which the surplus electricity in some Pool countries can be exchanged to cover the deficit in other countries that suffer from it.
- **Task (3) - Evaluation of Existing Training Programs for Network Operators:** Providing technical assistance in evaluating current training programs. A framework will be established for facilitation to Member States and for development and updating the training programs. Members of the Operational Committee have conducted an analysis for existing training programs related to the electricity network operators in the member countries with a focus on interconnection lines. An updated program for training network operators has been developed, where a gap analyses of the training gaps was carried out in each country. The analysis indicated that Egypt had no gaps regarding the training of network operating engineers.
- **Task (4) - Modeling and Analysis of Electric Power Systems:** Providing technical assistance to the Study of the Analysis of Electric Networks (Power System Analysis) for the Pool countries in static and dynamic state for the years 2020 and 2025 by integrating the networks of the Pool countries into a unified model using the PSS/E program aiming to study the stability of the electric networks of the Pool countries before and after the electrical interconnection in preparation for operational readiness among them. This is done by analyzing the electrical networks of the Pool countries in the normal (static) state and in the event of malfunction or an emergency outage of any equipment in the network (dynamic), provided that such studies are prepared on an annual basis by the members of the Planning Committee of the EAPP.

2. A Quarterly Report on Performance Indicators of the Egyptian Interconnection:

- It is of importance to evaluate the performance of the electrical interconnection networks with which Egypt participates in this project, where reports are prepared and issued to demonstrate data relating to the indicators of performance of the Egyptian / Libyan and the Egyptian / Sudanese interconnection lines on three-month basis.

3. The Electricity Market for EAPP Countries:

- Work is currently underway on a project to design the regional electricity market in the Pool with the participation of Egypt, aiming to establish an electricity market for the Pool in line with the requirements of all current member states as well as potential members to join the Pool (South Sudan, Eritrea, and Somalia), and also compatible with the South African Power Pool (SAPP). An energy trade agreement and pricing policy between the Pool countries were also prepared, which is a bilateral agreement to be signed between the countries wishing to transfer and trade electricity within the Pool and it was reviewed by the member states.

Cairo-Cape Town Electricity Transmission Corridor and Cooperation with African Countries:

- In January 2020, a preliminary study was prepared for the continental electrical interconnection between Cairo and Cape Town parallel to the land road being worked on between the two cities, with the first phase of the project linking Egypt, Sudan, and Ethiopia. This corridor will serve as a main route for electrical interconnection across Africa, and the project has been included in the study of the continental interconnection under the auspices of NEPAD with whom cooperation is underway to update the master plan of EAPP.
- Cooperation takes place with the African countries in the field of renewable energy in general and the supply and implementation of solar energy systems in particular. It also includes the exchange of experience in the fields of production, transmission and distribution of electricity and renewable energy, the dispatch of experts to study electrical projects and determine actual requirements for the purpose of providing the necessary consultancy services according to the needs of the African countries.
- It is worth mentioning that EEHC participates in all events and meetings with the concerned ministries in related projects, for example the navigation corridor between Lake Victoria and the Mediterranean (Vic-Med).

Egypt s Membership in International Organizations:

- In the context of the Egyptian Electricity Sector's endeavor to transform Egypt into a pivotal energy hub, and in order to exploit the great opportunities for generating clean electricity from solar energy and wind farms, and the measures being taken to construct the first plant for the production of the equipment of solar energy and wind farms, and in order to take advantage of energy investment opportunities, the Ministry of Electricity and Renewable Energy signed a cooperation protocol with the Global Energy Interconnection Development and Cooperation Organization (GEIDCO) in the areas of training, smart grids and technical support. EEHC, as a member of the Organization, also participates in the meetings, conferences and workshops organized by GEIDCO at the African and global levels in the fields of international interconnection, electricity markets, renewable energy, and energy efficiency. Periodical reports are presented by the Electricity Sector on the global electrical interconnection studies carried out by the Organization and sharing these studies with the concerned authorities within the country after the Sector having them studied and reviewed with all sovereign and concerned authorities.
- Through Egypt's membership in various international entities around the Mediterranean basin, such as the Association of Mediterranean Transmission System Operators (Med-TSO), the Union for the Mediterranean (UFM), the Mediterranean Energy Observatory (OME), the following were carried out:
  - Participating in the preparation of the two work program documents of the Regional Electricity Market Forum and the Renewable Energy & Energy Efficiency Forum.
  - Studying the extent to which the national code matches with the code of the Mediterranean TSOs aiming to reach the joint electrical interconnection around the Mediterranean.

Arab Electricity Common Market - Comprehensive Pan-Arab Interconnection:

- Egypt participates in the Comprehensive Pan-Arab Electrical Interconnection Project, which is the basis for the establishment of the Arab Electricity Common Market, through its representation in the Executive Office (chairman of the office), the Committee of Electricity Experts in Arab Countries (chairman of the committee), the Steering Committee (chairman of the committee) and the team for conducting the study of the comprehensive Pan-Arab Interconnection (A specialized team from EEHC: legal, technical, and financial).

- The Arab common market is based on the existence of a strong institutional framework with an integrated infrastructure that takes technical aspects into account. To achieve the integration of the electricity common market, a legislative framework has been developed based on four basic documents for market governance; namely, the Memorandum of Understanding, the General Agreement, the Arab Electricity Common Market Agreement, and the Rules of Operation of Arab networks.
- Recently, the World Bank Group and the Arab Fund for Economic and Social Development, in association with the General Secretariat of the Arab League, organized the 1st Conference on Energy Trade in the Arab region in Cairo with a wide participation of regional and international ministers and experts, an event that represents a major milestone towards the successful completion of the foundational phase of establishing the Arab common market for electricity.
- A decision of the Arab Ministerial Council for Electricity gave a preliminary approval of the draft final version of the two agreements of the Arab common market, in preparation for submission to the competent councils.
- The implementation of the 4th phase of the Regional Pricing Mechanism Program is underway, hosted by the Saudi Electricity Company (the main buyer) with the participation of the Arab member states through representatives of each country in working groups representing the technical, economic, and organizational aspects for training on how to organize and manage electricity trade within the Arab common market.

III. Egyptian Electricity Market:

- Given that reforms of the Egyptian electricity sector are proceeding based on several defined policies and integrated plans and programs and regulatory laws and legislations, the Electricity Law no. 87 of 2015 and its Executive Regulation have been issued with the aim to support the structural transformation system in the Egyptian electricity market by way of operating the Egyptian electricity system according to economic and environmental standards that guarantee equal opportunities while maintaining the interests of electricity producers and consumers. EEHC is currently studying regularization of its conditions with the assistance of a Japanese consultant aiming to help develop an action plan to regularize its conditions in line with the requirements of the gradual opening of the Egyptian electricity market. Work is in progress to put reform steps into effect by starting to implement a pilot project where two models were selected (Cairo Production Co. and North Cairo Distribution Co.). An agreement was also made with the Japanese side on work stages in light of the emergency circumstances prevailing worldwide as a result of Covid-19 pandemic. The Japanese side was informed that the pace of work in Egypt is going on a regular basis, and the scope of the consultancy services has been extended due to the global changes that prevented the completion of the project schedule on time due to the Covid-19 pandemic.

New & Renewable Energy Projects

The Ministry of Electricity & Renewable Energy aims to maximize utilizing renewable energy in Egypt to reach about 20% of the total peak load by 2022, and up to 42% of the total generated energy by 2035, by adopting policies that encourage private sector investments in electricity production projects from renewable energies (wind and solar).

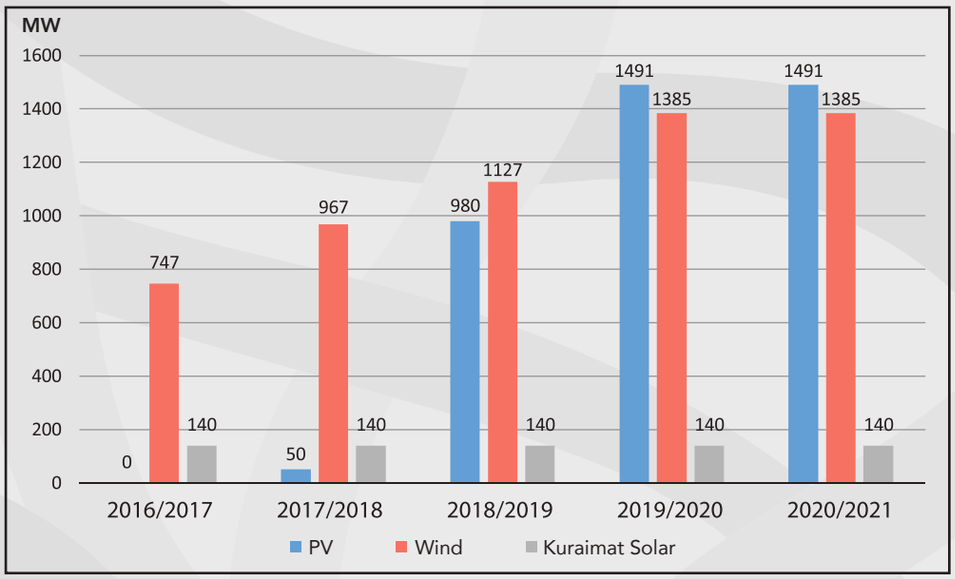
I. Solar Energy Projects in 2020/2021:

- A power purchase agreement (PPA) was finally signed with ACWA Power of Saudi Arabia for energy generated in photovoltaic power plant in Kom Ombo, Aswan, under BOO system with a capacity of 200 MW, and the commercial operation is planned to start in 2023.
- Another power purchase agreement was also signed with Al-Nowais Group of the United Arab Emirates for a photovoltaic power plant in Kom Ombo, under BOO system with a capacity of 500 MW, and the commercial operation is targeted at the end of 2023.

II. Wind Energy Projects in 2020/2021:

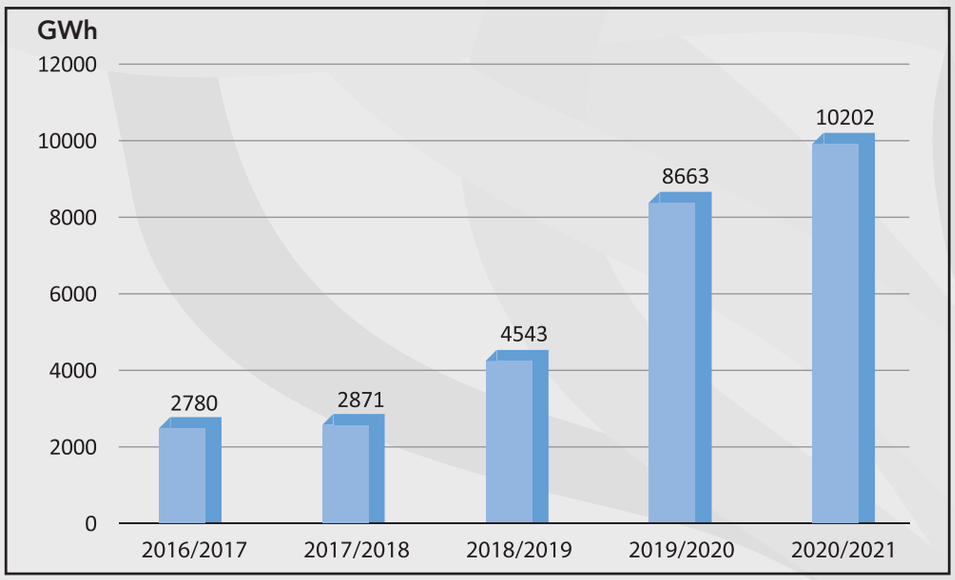
- A power purchase agreement was signed with Lekela Power of U.K. for energy produced in a wind park implemented under BOO system in the Gulf of Suez with a capacity of 250 MW, and the commercial operation is expected in the last quarter of 2021.
- A power purchase agreement was also signed with Al-Nowais Group for a wind park constructed in the Gulf of Suez with a capacity of 500 MW, and the commercial operation is expected at the end of 2023.

Installed Capacity of Renewable Energies



- Excluding a 5 MW wind plant at Hurghada.
- In 2011, the first solar/thermal power plant for electricity production in Kuraimat was commercially operated with 140 MW capacity of which 20 MW is a solar component.
- Solar power plants include 1465 MW in Benban and 26 MW in Kom Ombo.
- Wind farms include 542.3 MW in Zaafarana, 580 MW in Gabel El-Zeit, and 262.5 MW in Ras Ghareb.

Energy Generated from Renewables



- The generated energy from renewables mainly depends on wind speed & solar irradiance.
- The total energy generated from wind farms amounted to 5257 GWh, and from PV power plants 4466 GWh, and from Kuraimat solar plant 479 GWh.

Distribution of Electrical Energy

The Electricity Distribution Companies:

- North Cairo Electricity Distribution Co.
- South Cairo Electricity Distribution Co.
- Alexandria Electricity Distribution Co.
- Canal Electricity Distribution Co.
- North Delta Electricity Distribution Co.
- South Delta Electricity Distribution Co.
- Beheira Electricity Distribution Co.
- Middle Egypt Electricity Distribution Co.
- Upper Egypt Electricity Distribution Co.

Objectives of the Distribution Companies:

1. Distributing and selling electrical power to subscribers on medium and low voltages which is purchased from the Egyptian Electricity Transmission Co. (EETC) and from Egyptian electricity production companies on medium voltage, as well as energy purchased from industrial enterprises in case of exceeding their needs, subject to approval of EEHC Board of Directors
2. Managing, operating, and maintaining the medium and low voltage networks of the Company according to instructions of control centers and in consistency with the economical operation requirements.
3. Preparing forecast studies on loads and energy for the Company s subscribers and also economic and financial forecast for the Company itself.
4. Conducting studies, research, and designs, and implementing power projects for supply of electrical power for different purposes on medium and low voltages and carrying out all associated and complementary works.
5. Managing, operating, and maintaining unconnected generation units which are not connected to the unified grid.
6. Carrying out any other works or activities related to or complementing the Company s objective in addition to any other work that may be entrusted to the Company by EEHC within its competence.
7. Carrying out other works entrusted to the Company by other parties within its scope of activity that achieve an economic benefit for the Company.

Electricity Distribution Network Statistics (30-6-2021)

Company Description		North Cairo	South Cairo	Alex.	Canal	North Delta	South Delta	Beheira	Middle Egypt	Upper Egypt	Total
No. of Subscribers (K)		4796	6126	2846	4557	4534	5025	2524	4056	3441	37905
Sold Energy* (GWh)		16976	20250	8437	23695	11415	10757	10243	14237	10710	126720
Total Purchased Energy** (GWh)		21836	29634	10071	26778	14930	13778	13005	19261	14323	163616
No. of MV Distributors		493	470	271	1461	247	240	323	195	185	3885
Percentage of overall total (%)		12.69	12.10	6.98	37.61	6.36	6.18	8.31	5.02	4.76	100
Length of MV Network (km)	Lines	142	3324	566	15721	9961	7699	16820	20188	11598	86020
	Cables	26384	28312	12610	24498	8702	7590	8807	10606	11078	138587
	Total	26526	31636	13176	40219	18663	15289	25627	30794	22676	224607
Length of LV Network (km)	Lines	3513	4824	4379	33559	23521	18926	21490	38309	38144	186665
	Cables	39868	60789	6719	17065	3312	1103	3307	3858	3809	139830
	Total	43381	65613	11098	50624	26833	20029	24797	42167	41953	326495
Total Length of Lines & Cables (Km)		69907	97249	24275	90843	45496	35318	50424	72961	64629	551102
Percentage of overall total (%)		12.69	17.65	4.40	16.48	8.26	6.41	9.15	13.24	11.73	100
No. of Subscribers (K) / Total Length (Km)		0.069	0.063	0.117	0.050	0.100	0.142	0.050	0.056	0.053	0.069
Sold Energy (GWh) / Total Length (Km)		0.24	0.21	0.35	0.26	0.25	0.30	0.20	0.20	0.17	0.23
Sold Energy (GWh) / No. of Transformers		0.88	0.86	0.92	0.63	0.61	0.57	0.36	0.50	0.44	0.61
Capacity of Distribution Transformers MVA		16729	19107	6395	15869	6277	6616	7390	7690	7105	93177
No. of Distribution Transformers		19374	23653	9203	37540	18783	18831	28540	28309	24571	208804
Ratio of transformers number to overall total (%)		9.3	11.3	4.4	18	9	9	13.7	13.6	11.8	100
Number of LV Pillars and Panels		67179	72536	9203	54765	21055	18938	31365	14563	14307	303911
Percentage of overall total (%)		22.1	23.9	3	18	6.9	6.2	10.3	4.8	4.7	100

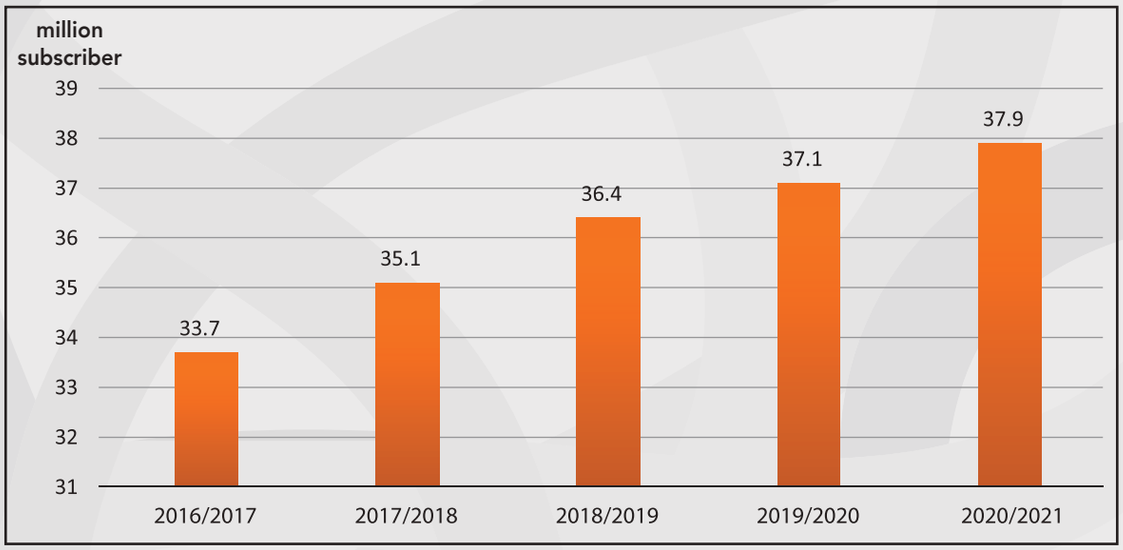
* Sold energy does not include energy sold to DISCOMs.

** Total Purshased energy does not include self Generation.

Statistics of Distribution Companies (on medium and low voltages)

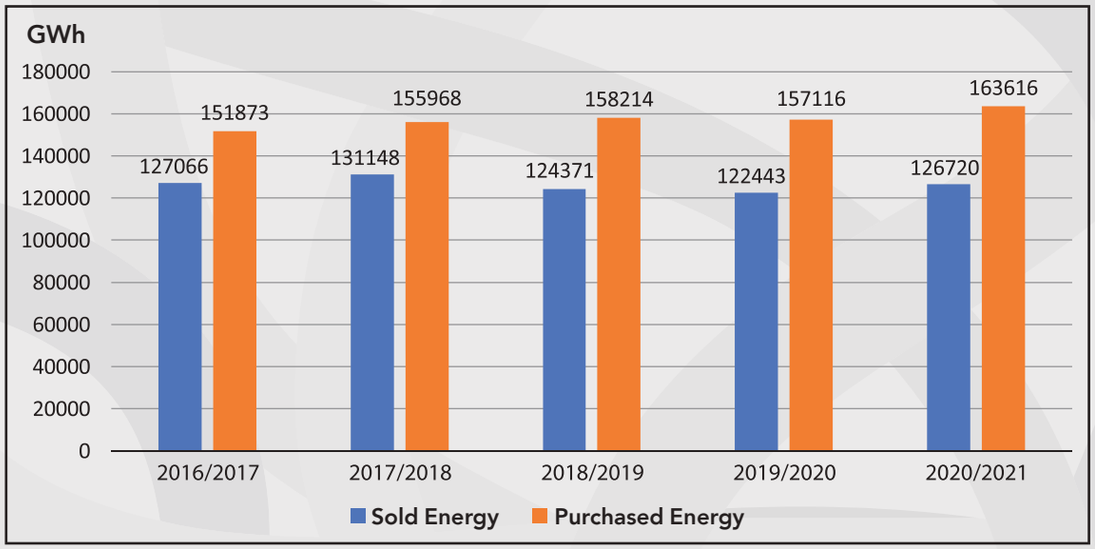
1 Number of Subscribers

Description	2019/2020	2020/2021	Variation %
Total number of subscribers on medium and low voltages (million subscriber)	37.1	37.9	2.2



2 Purchased & Sold Energy in DISCOMs

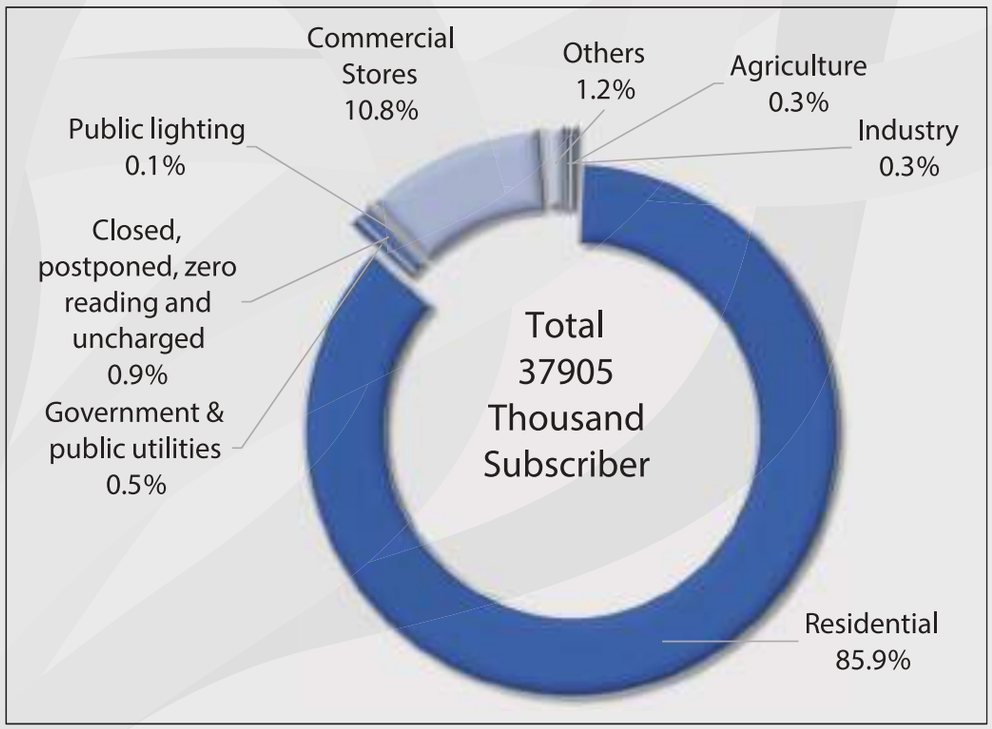
Description	2019/2020	2020/2021	Variation %
Total Purchased Energy (GWh)	157116	163616	4.1
Total Sold Energy (GWh)	122443	126720	3.5



3 Number of Subscribers (on medium & low voltages) According to Purpose on 30.6.2021

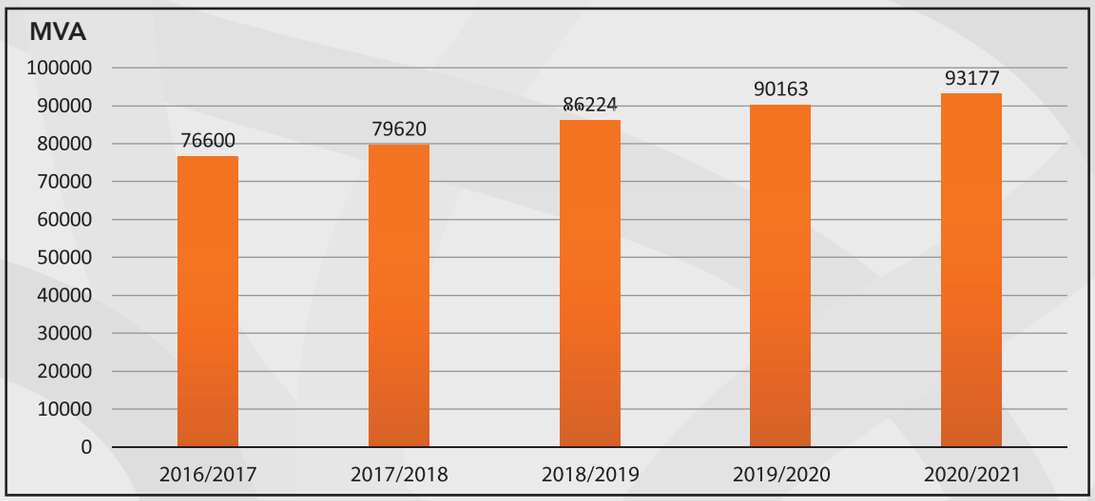
Purpose of Usage	No. of Subscribers (in 1000s)
Industry	121
Agriculture	116
Government & public utilities	191
Residential	32552
Commercial Stores	4083
Closed, postponed, zero reading and uncharged	331
Public lighting	50
Others	461
Total	**37905**

* Others: Youth centers, East Owaynat project, .



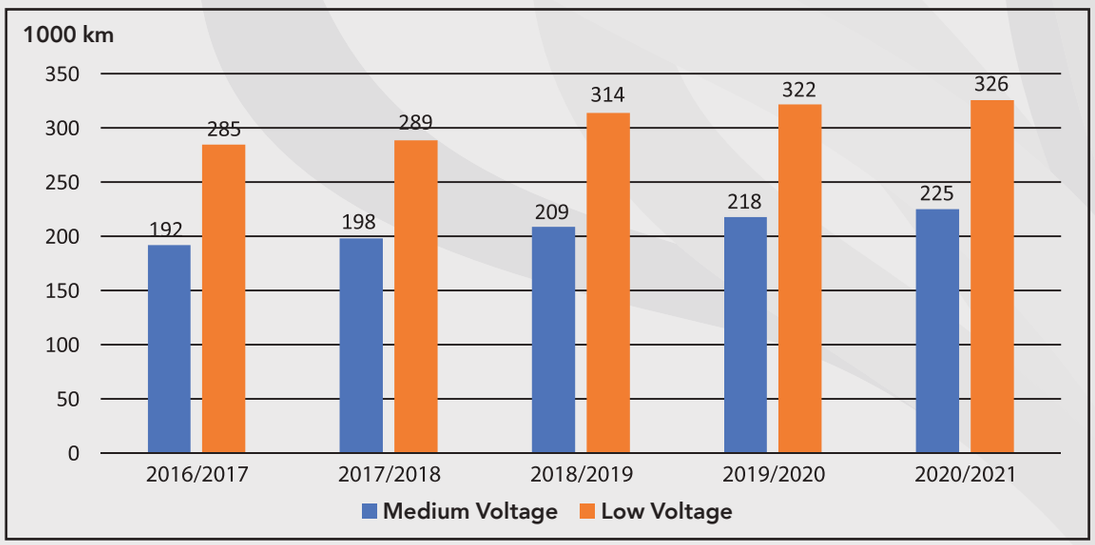
4 Total Distribution Transformers Capacities

Description	2019/2020	2020/2021	Variation %
Total distribution transformers capacities on medium & low voltages (MVA)	90163	93177	3.3



5 Total Lengths of Medium & Low Voltage Lines and Cables

Description	2019/2020	2020/2021	Variation %
Total lengths of medium voltage overhead lines & cables (1000 km)	218	225	3.2
Total lengths of low voltage lines & cables (1000 km)	322	326	1.2



Smart Services:

EEHC strives hard to improve the level of services offered to citizens to ensure the provision of high-quality services in conformity with global specifications and standards through multiple channels such as the service centers, the hotline (121), the unified platform for smart electricity services, and the electronic application, as shown below in some details:

A. Customer Service Centers:

The amount of customer service centers amounted to 465 centers as follows:

- 152 high-quality distinctive centers
- 198 medium-quality centers
- 115 centers in need to comprehensive improvement
- Standard specifications for customer service technological centers are being prepared in line with the State s vision 2030 in upgrading the services system, as well as building a structure that ensures raising the efficiency of service centers and facilitating their role in conformity with the digitalization strategy in the electricity and renewable energy sector that is being implemented to become fully technological centers.

In April 2021, a contract was signed with the CID consultancy firm to improve the service centers where:

- the evaluation of the electronic service channels was completed,
- the extent of customer satisfaction with the current services is being evaluated,
- a strategy for developing service channels and a roadmap was developed, and the feasibility study is being prepared,
- a guide of service quality is being prepared, and
- the second phase of the quality management training plan has been implemented.

B- The Customer Service Unified Number (121) System through the Unified Platform for Smart Services

- To improve the quality of services offered to citizens and make available multiple channels to provide the service through the Unified Platform for smart electricity services, the Platform has been linked with the hotline (121) system for receiving complaints and faults and the service has already been operated by submitting commercial complaints, technical faults, and interruptions through the unified Platform.
- Since the date of contracting with Xceed Company to provide Call Center service on the unified number (121) until 30.6.2021, the number of incoming calls amounted to about 11.87 million calls and the average response rate for technical reports reached 99.9% and for commercial complaints 99.8%.

C- The Unified Platform for Smart Electricity Services:

Along with the State s vision to maximize the benefit from information technology and digital transformation and in order to facilitate procedures for citizens and provide smart channels for submitting requests for access to services with ease and comfort, the following has been done till 30/6/2021:

- Launching the Unified Platform for smart electricity services that can be easily accessed on the website: https://eservices.eehc.gov.eg to enable citizens submit requests for obtaining the service and follow-up the request status in all its stages, and also pay fees and estimate charges through electronic payment methods without need to go the service center.
- Launching the Platform with the service of converting practices into coded meters where the total number of requests submitted reached 1.8 million orders and nearly 600 000 meters have already been installed.
- A number of 15 services have been activated and launched on the Platform (contracting data certificate, installation of replacement meter, and others.) and the rest of services will be made available successively by the end of March 2022.
- The mobile application for smart services has also been launched and linked with the unified Platform.
- Measures are being taken for integration and linking with Egypt s Digital Platform where (5) services will be available by the end of December 2021 and (6) other services by the end of January 2022.

D- Wassel Application Service for People with Hearing Impairment and Speech Disorders:

- On 1.7.2020 an agreement was signed between the Ministry of Electricity & Renewable Energy (MoERE) and the Ministry of Communication and Information Technology to provide MoERE services to people with disabilities.
- The service for responding to queries and complaints related to electricity services has already been activated and provided by the Technical Center for Services to Persons with Disabilities through Wassel application and such complaints are sent to the respective DISCOMs to work on resolving them without delay.

E- Mobile Application for Providing Smart Services:

- The project has been successfully launched through multiple applications for charging prepaid meters online by mobile with NFC technology, i.e., Sahl, Electricity Khales and My Fawry.
- The security of this system is monitored by the General Intelligence Service.
- The number of subscribers to this service reached about 82 000 subscribers till 30/6/2021.

Digital Transformation:

The electricity & renewable energy sector, represented in EEHC and its affiliated companies, seeks to be an active party in the digital transformation system in collaboration with the Administrative Control Authority and the Ministry of Communication. A project is being implemented for unifying subscribers databases and linking them spatially with region maps and journals, where:

- Linking of (13) Governorates has already been implemented.
- Setting out journals on the cadastral maps for (2) governorates has been completed, and preparations are being made to setting out journals for (3) other governorates.
- Preparations are underway to start linking with the North Cairo Electricity Distribution Company.

Preparation for Moving to the Administrative Capital:

- The Digital Transformation Unit was formed, and its members received the necessary training.
- The work of digitizing documents and papers for all sectors of EEHC has been completed.
- Coordination and training on participatory programs were conducted for those who will be moving to the administrative capital.
- The programs relating to all sectors of EEHC were tested in cooperation with the concerned authorities and migration of the necessary data was made for performing work in the new capital.

Prepaid Meters:

- In March 2016, a cooperation protocol was signed between EEHC and the National Defense Council for the development of information systems and data security in the field of smart meters and their applications in DISCOMs.
- In May 2017, a contract was signed for the supply, installation, operation, and maintenance of the advanced infrastructure measuring systems for a number of 250 000 smart meters as pilot project within the geographical range of six DISCOMs (i.e., North and South Cairo, Alexandria, Canal, South Delta, and Middle Egypt).
- Data centers were established and operated in six DISCOMs, and the main data center and the exchange center were also established.
- About 213000 smart meters were installed and operated and bills were issued for about 108000 meters until 30/6/2021.
- In July 2021, a public tender was announced to install about 530 000 smart meters for kiosks, transformers, distributors, and major subscribers at the level of DISCOMs.

Pre-Paid Meters:

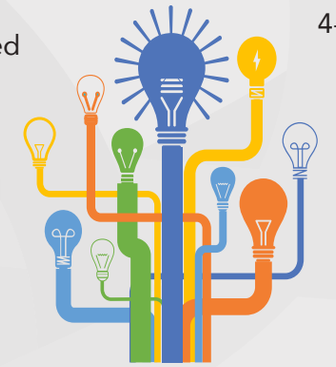
The use of this type of meters had been expanded since 2011 and was generalized in 2014, with about 11.7 million meters installed up to 30.9.2021. Using pre-paid meters aims to:

- Achieve financial liquidity for electricity companies resulting from prepayment of charging value.
- Avoiding problems with some consumers such as estimating the amount of consumption and the high value of some bills, as well as ensuring security to subscribers where no need for any person to enter a subscriber s home.
- It is targeted to complete installing 2 million meters during the year 2021/2022.

Improving Energy Efficiency in Distribution Networks:

1- February 2016, a loan agreement was signed with the Japanese International Cooperation Agency (JICA) in an amount of J¥ 24.8 b. to finance the construction of an integrated smart network in three DISCOMs with an implementation period of about 60 months.

2- June 2016, a consultancy service contract was signed with TEPSCO.



3- November 2020, a contract was signed between North Cairo Distribution Co. and the Consortium Toyota-ElSewedy for the construction of a control center in Helmeya district, Cairo, and the installation of 490 000 smart meters, expected to be completed by August 2023.

4- March 2021, a limited tender was issued in favor of Alexandria Distribution Co. (the Supervisory Control Center and West Alex Control Center and installation of 300 000 smart meters) and North Delta Distribution Co. (Damietta Control Center and installation of 175 000 smart meters). The Contract is expected to be signed in April 2022 and the implementation completed by October 2024.

Infrastructure Security:

The 1st phase of the Project was completed, and security is being expanded to the level of branches (the 2nd phase); and the Cyber Security Operations Center (SOC) has been completed where data of DISCOMs is monitored and analyzed.

Meter Security System:

The security system was implemented in South Cairo, Canal, Alex, Middle Egypt, North Delta, Upper Egypt, and Beheira DISCOMs, and the system is being implemented in North Cairo and South Delta DISCOMs, where it is expected to be completed in December 2021.

Establishment and Development of Distribution Controls:

- The Ministry of Electricity, represented in EEHC, is carrying out a development process of DISCOMs networks to raise the level of performance and improve the quality of electric feeding, where a plan was drawn up to establish and develop a number of (47) control centers in the distribution networks up to the year 2025 in several stages distributed geographically throughout the country.
- Emphasis was given to the use of latest technology in control, monitoring, and communication systems for the purpose of monitoring and controlling distributors and transformers in a safe manner.
- It is planned to implement the project in several phases:

Phase 1:

(5) control centers are being implemented:

- (4) centers with Schneider Electric in North and South Cairo DISCOMs; and
- East Alexandria Control Center in collaboration with General Electric.

Phases 2 &3:

- A number of (10) control centers with Schneider Electric, where it is expected to sign contracts by the end of 2021/2022 and implementation completed during the year 2023/2024.

- **Other control centers are to be implemented according to the readiness of the electrical network.**

Rationalizing and Improving Energy Efficiency and Use of Renewables:

- The total number of solar plants reached 1105 plants with an aggregate capacity of 100 MW.
- A number of 400 studies were conducted in the industrial and commercial sectors with spreading awareness in all governorates of the Republic.
- Cooperation protocols with external parties were executed in the field of rationalization and renewable energy within the scope of DISCOMs.

Electric Vehicles:

- An electrical quality measurements device was installed in three DISCOMs (North Cairo, South Cairo, and Alexandria), and a technical study was conducted on the electrical network elements of AC and DC current charging units in order to spread and expand the use of the means of e-mobility for its positive impact on preserving the environment and localizing the manufacture of electric vehicles.
- A draft terms of reference (TOR) was prepared, and consultancy services are to be used to develop proposals for technical specifications of electric vehicles.

Development of Squatter Settlements Project:

- On 23.11.2016, a Protocol of Cooperation was signed between the Informal Settlements Development Fund (ISDF) and MoERE for the development of unsafe squatter areas located within the precinct of electricity.
- The cost of the project was estimated at an amount of EGP 1.7 billion, to be financed from the State treasury.
- By the end of June 2021, the replacement of the medium-voltage overhead lines passing over the residential blocks with underground cables was completed in (4) phases with total lengths of 1609.5 km at an investment cost of EGP 1710.4 million.
- A plan for Phase (5) of the project in 2021/2022 is being implemented at a cost of about EGP 100 million.

Ultra-High Voltage Research Center:

- In October 2020, the Center obtained an accreditation certificate from the Egyptian Accreditation Council (EGAC) as an assessment body conforming to the requirements of the international standards in some tests conducted only on 66 kV cables.
- A program for financial follow up and billing is being implemented.
- A number of 176 electronic bills were posted on Tax Authority Portal to date.
- A return of about EGP 16.5 million was achieved in FY 2020/2021.

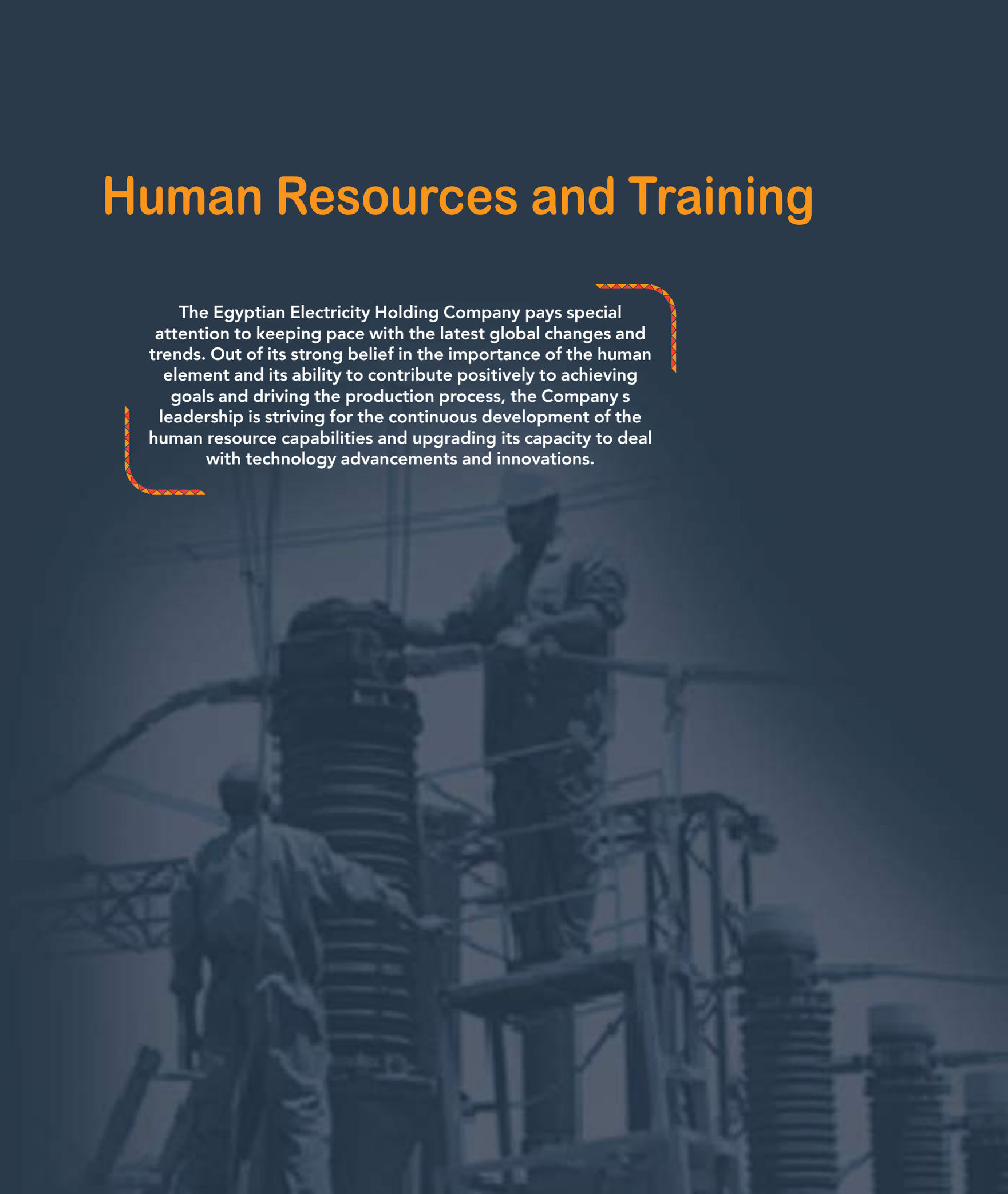
For more information, please visit the website:
http://www.eehc.gov.eg

Information about Distribution Companies

DISCO	Geographical Zone	Headquarter	Capital (million EGP)	Ratio of Capital to EEHC s Investments	Address	Phone & Website
North Cairo	North & East Cairo Districts, New Cairo, El-Salam and El-Obour Cities in Cairo Governorate; Khanka, Shoubra El-kheima. El-Qanater & Bahteem in Qalyoubeya Governorate;	Cairo Governorate	796.835	2.5%	2 El-Nasr Road, Next to Nasr City Police Station I, Cairo	02/22725095 02/22724409 www.ncedc.gov.eg
South Cairo	West & South Cairo Districts in Cairo Governorate; and all districts of Giza Governorate	Cairo Governorate	470.257	1.5%	53, 26th July St., Cairo	02/25766400 02/25760686 www.scedc.gov.eg
Alexandria	From Abu-Qir westwards to K. 66 west of Alex/Matrouh Road	Alexandria Governorate	377.008	1.2%	9, Sedi El- Metwally St., Attareen, Alex.	03/3911967 03/4948107 ww.aedc.gov.eg
Canal	Ismailiya, Port Said, Suez, Sharqeya, North Sinai, South Sinai & Red Sea Governorates & new cities within the Company s geo. zone	Ismailiya Governorate	1455.419	4.5%	Osman Ahmed Osman Square, Sheikh Zayed, Ismailiya	064/3209600 064/3208240 www.cced.gov.eg
North Delta	Daqahleya, Damietta & Kafr El-Sheikh Governorates	Daqahleya Governorate	486.694	1.5%	Gomhoreya St., Opposite Governorate Building, Daqahleya	050/2304186 050/2304187 www.ndedco.org
South Delta	Qalyoubeya (Except Greater Cairo extension); Menoufeya (Except Sadat City and its affiliated villages & El-Khatatba Center) & Gharbeya Governorates	Gharbeya Governorate	457.214	1.4%	Kafr El-Sheikh Road, Tanta, Gharbeya	040/3455516 040/3455519 www.sdedc.net
Beheira	Beheira & Matrouh Governorates and beyond K. 66 Alex/Matrouh Road; Sadat City and its affiliated villages & Khatatba Center in Menoufeya Governorate	Beheira Governorate	397.759	1.2%	Gomhoreya St. Damnhour, Beheira	045/3221509 045/3324399 www.bedc.gov.eg
Middle Egypt	Beni-Suif, Fayoum, Minia, Assiut & New Valley Governorates	Minia Governorate	1018.217	3.2%	78, Horreya St. Minia	086/2346733 086/2353527 www.meedco.gov.eg
Upper Egypt	Sohag, Qena, Aswan and Luxor Governorates	Aswan Governorate	484.547	1.5%	High Dam, West Aswan	097/3480416 097/3480317 www.ueedc.com

Human Resources and Training

The Egyptian Electricity Holding Company pays special attention to keeping pace with the latest global changes and trends. Out of its strong belief in the importance of the human element and its ability to contribute positively to achieving goals and driving the production process, the Company s leadership is striving for the continuous development of the human resource capabilities and upgrading its capacity to deal with technology advancements and innovations.



Workforce

The total number of employees in EEHC and its subsidiaries amounted to 148 649 on 30.6.2021 compared to 152 711 on 30.6.2020, at a reduction rate of 2.7%, as demonstrated below:

The Holding Company
Total: 2 398 employee

Generation Companies Total: 29 401 employee

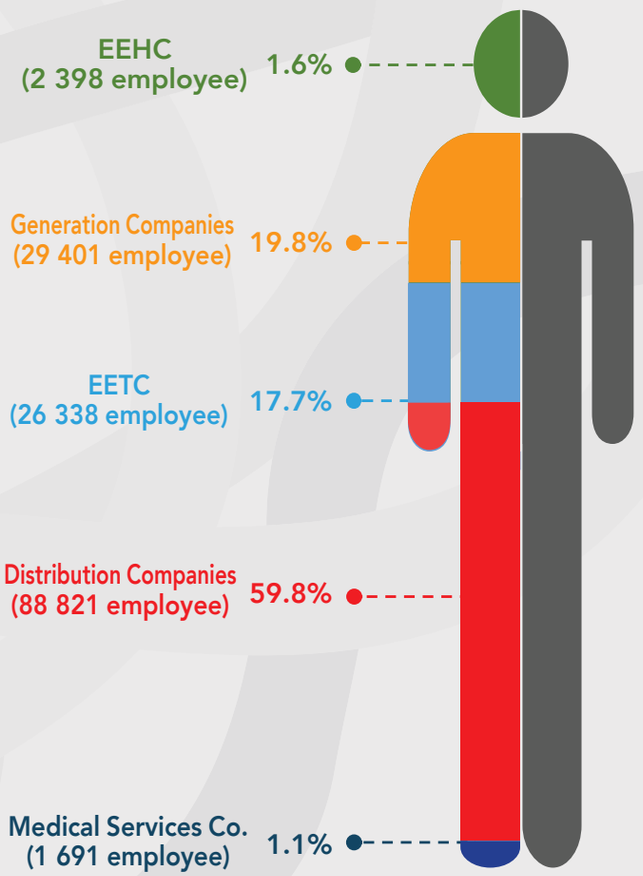
• Cairo	4'604	• Middle Delta	5'872
• East Delta	6'101	• Upper Egypt	3'341
• West Delta	6'769	• Hydro Plants	2'714

Transmission Company
Total: 26 338 employee

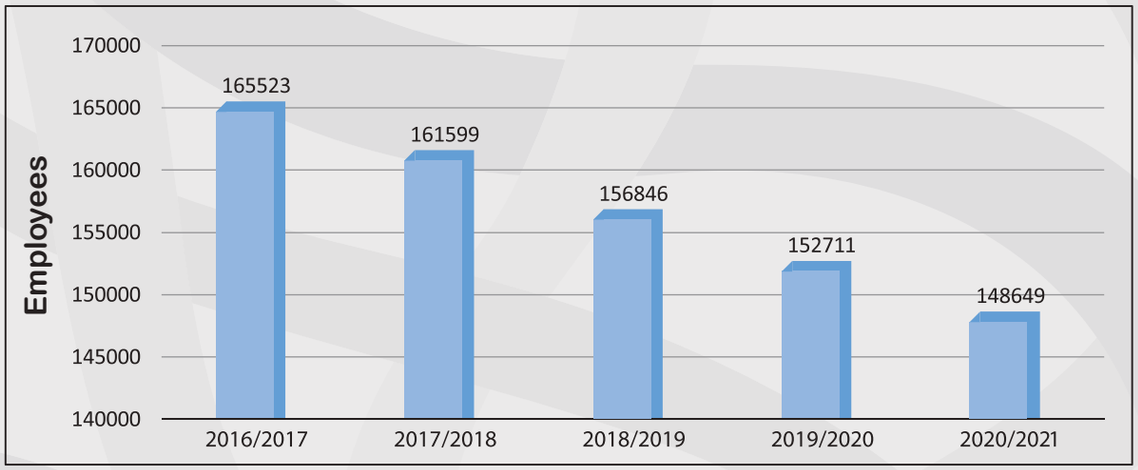
Distribution Companies
Total: 88 821 employee

• N. Cairo	11'347	• S. Cairo	15'466
• Alexandria	10'415	• Canal	13'610
• Beheira	7'286	• N. Delta	7'218
• S. Delta	8'362	• Mid. Egypt	8'304
		• Upper Egypt	6'813

Medical Services Company
Electricity Hospital Total: 1 691 employee



Development in Total Number of Employees



Development of Human Resources and Performance Improvement

EEHC s Management strongly believes in the change the human resource can make, being the most crucial element of the production process driving us to change our policy and strategy to be able to overcome challenges to ensure robust continuity, and therefore the following have been achieved:

- Shifting from traditional to strategic management of human resources of which the human resource planning is a key axis and that aims at attracting efficient elements to achieve the strategy, vision, and mission of the Holding Company and its affiliated companies.
- Implementing job replacement and succession policy, improving the appointment process for leadership positions, and effectively developing the capabilities of potential successors.
- Activating the electronic system for human resources, providing technical support to companies by completing their data through the system and conducting periodical reviews to verify data accuracy.
- Starting activation of the entitlements and wages automated system in five affiliated companies (North Cairo, South Cairo and Alexandria Distribution Companies, and Cairo and West Delta Production Companies) in preparation to linking them to the integrated system of human resources.
- Completing implementation of the key axes of the Human Resource Development Strategy that was prepared to upgrade the level of performance, achieve the Company's goals effectively and efficiently that focuses on building the culture of performance quality and accountability, creating a more diversified workforce, and developing work procedures.
- Working on optimal utilization of human resources and the available capabilities in the interest of the Company and the employees.

Medical Care

The Board of Directors of the Holding Company firmly believes in the importance of the human resource as one of the main pillars to achieve the Sector s mission. Out of this belief, the performance of the medical service for employees has been developed and improved through the following:

- Establishing a medical services company to provide comprehensive and distinguished health care, as will be detailed later in this report.
- Preparing the strategy of the medical sector in the Holding Company which is based on:
  - » Upgrading the level of primary medical care services (preventive, curative and educational) and expanding the provision of integrated services.
  - » Developing the curative and urgent services, where a new structure has been set up to organize work in the medical sector and divide tasks to raise the level of quality and integration of medical service.
  - » Developing the health service offered to patients who visit clinics at the medical center and preparing a specialized team.
  - » Paying special attention to raising the level of medical and technical cadres working in the medical sector in EEHC and the Medical Services Company and informing them about modern medical fields through training courses in Egyptian universities and attending medical conferences.

Training and Capacity Building

The strategic goal of training is to contribute to success and sustainability of the company by way of developing an appropriate training strategy that maintains high level of skills and competitive capabilities and distinctive performance, where the following activities were implemented during the year 2020/2021:

A. Training of Employees:

Technical, managerial and leadership training programs were implemented for the benefit of the employees of the Holding Company, affiliated companies, and the Ministry of Electricity's head office through the Leadership Development Center (LDC) of the Holding Company, the training centers of affiliated companies and other external centers, as shown below:

Description	Number of Trainees in 2020/2021
Trainees from the Holding Company	5 454
Trainees from affiliated electricity companies	29 230
Trainees from the Ministry of Electricity and Nuclear Power Plants Authority	293
Conferences & Seminars in various training fields (at EEHC)	587
Conferences & Seminars implemented by EEHC for affiliated companies' employees	784
Conferences & Seminars in various training fields (at affiliated companies)	5 124
TOTAL	**41 472**

Also, a number of (808) trainees from affiliated companies received specialized technical training courses.

B. Training of Others in Support of Social Responsibility:

- A summer training program was conducted at EEHC and affiliated companies for (2919) students of faculties of engineering, higher institutes, faculty of commerce, and higher industrial education.
- With regard to co-education industrial classes under the agreement concluded with the Ministry of Education, there were (217) graduates and (531) enrolled students during the year 2020/2021.

C. Training of Expatriates in Egypt (from Outside the Electricity Sector):

- 32 persons were trained at the Holding Company.
- 453 persons were trained at affiliated companies.
- Seminars were held for 191 Participants in affiliated Companies.

D. Marketing of Training Capabilities:

- Within the framework of cooperation in the field of training with Arab and African countries, (13) training courses were implemented for (186) trainees from different countries at the Holding Company.
- A record of consultations was signed between EEHC, the Japanese International Cooperation Agency (JICA) and the Ministry of Foreign Affairs of Egypt which provides for implementing a number of training courses for the Iraqi side at the training centers of the Holding Company.
- A cooperation protocol was signed between EEHC and the Leaders Training Center of the United Arab Emirates.
- A cooperation protocol was signed between EEHC and the Electronics Research Institute in the field of training.
- A memorandum of understanding was signed between EEHC and Huawei Technologies Egypt Co., Ltd. for the establishment of Huawei Academy for capacity building and training of engineers in the advanced fields of communications and information technology.

Leadership Development Center of the Electricity Sector

Stemming from the keenness on early detection of elements qualified for leadership and preparation for the second row, the Leadership Development Center (LDC) was established in 1995 to achieve a mission represented in "Preparing a new generation of leaders who are capable through their knowledge, behaviors and experience to achieve the Sector's mission."

The achievements of the LDC in 2020/2021 are represented in the following:

- Preparing and qualifying a second row of leaders capable of keeping pace with the challenges and ambitions of the Electricity Sector, where batches (30) and (31) of the Leadership Development Program were graduated.
- Renewing ISO Certificate granted to the Center by SGS of the United Kingdom.
- Holding courses in Disseminating Measures of Integrity & Transparency Values and Awareness of the Risks of, and Means to Prevent, Corruption" in implementation of the recommendations issued by the National Anti-Corruption Committee.
- Developing and adding to the various training courses held at the Center in all fields.
- Qualifying a number of (1040) employees who are moving to the New Administrative Capital in the field of English language and computer.
- Completing the qualification of the training center of South Delta Electricity Distribution Company, while qualifying the training centers of Middle Egypt Electricity Distribution Company and Hydro Power Plants Electricity Production Company is underway.
- Additionally, the consultancy works have been presented for the renewal of ISO Certificate for each of Upper Egypt Electricity Distribution Company, Upper Egypt and East Delta Electricity Production Companies.
- The total revenues to the Center amounted to EGP 5 million in 2020/2021.

Development of Regulations & Organization Structures of EEHC & Subsidiaries

In order to keep up with all developments on work system, some existing regulations and procedures have been issued or modified to create a stimulating work environment, and these are represented in the following:

- Completing preparation of the executive rules for the Unified Contracting & Procurement Regulations, and the necessary arrangements are underway for their approval and putting them into effect.
- Preparing, issuing, and approving the Charter of the General Department of Internal Audit of EEHC and its affiliated companies to clarify the objectives, powers, and responsibilities of the internal auditing activity in electricity companies.
- Creating the Financial and Commercial Inspection Sector affiliated to the Executive Director of Financial, Commercial and Financing Affairs with the aim of tightening control, achieving financial and commercial discipline, and rectifying performance deficiencies.
- Establishing a unified electronic system known as "Integrated HR System" aiming to provide data and information and help decision makers be aware of any updates on real-time basis.
- Launching official and authenticated channels on various social media platforms to be the main source for the Electricity Sector in informing citizens of all developments in terms of decisions, declarations, publications, and information related to the Electricity Sector.
- Activating a project for defining knowledges, skills, and behaviors (KSB) that should be realized throughout the career path of every job category according to different levels and fields of work.

Audit Committee

During the year 2020/2021, four meetings were held to discuss multiple issues such as:

- Reviewing the budget for FY 2021/2022 and the preliminary financial statements and final accounts of FY 2020/2021 for the Holding Company and recommending their presentation to the Company's Board of Directors in preparation for referral to the Accountability State Authority (the External Auditor) for approval.
- Reviewing the charter (regulation) of the Internal Audit Department for EEHC and subsidiaries as well as the policy of reducing conflict of interests and recommending presentation to the Board of Directors for approval and putting them into effect.
- Studying and probing the development of systems for managing risks and crises facing the Holding Company and subsidiaries and proposing methods to confront such risks.

Also, the Committee is keen on issuing its instructions to the General Department of Information and the Internal Audit Department to help them consider the reports of the audit committees of the affiliated companies and the recommendations they make and prepare concise statement of the results of these committees work, represented in the following:

- Ensuring that an effective control system is in place to protect assets.
- Verifying compliance with the governing policies, rules, and regulations.
- Following up procurement processes to make sure that policies, procedures, and regulations are complied with and that approvals of procurement are given by the competent authority.

- Following up the audit committee of each affiliated company to the extent of implementing the investment plan, examining achievement reports, and comparing them to targets, and studying deviations.
- Studying the remarks of the Accountability State Authority on the planning budget, the financial statements and final accounts of each affiliated company and the extent to which each respective company work to avoid such remarks, especially the recurrent ones.

Governance

One of the strategic pillars to enhance competitiveness and prepare electricity companies to the competitive market is compliance with the standards of governance. Therefore, efforts of the Board of Directors of the Holding Company are combined with the Executive Management to abide by the principles and rules of governance through the following:

- Finalizing a complete record for all inherent risks of the various sectors and departments.
- Approving and adopting a charter for the Internal Audit Department.
- Approving and adopting a policy for reducing conflict of interests.
- Publishing guidelines and rules of governance on the official website and updating them on regular basis.
- Preparing a mechanism for governance of the affiliated companies' contracts to be implemented by direct order in foreign currency, where a permanent committee has been formed in EEHC to decide on the needs of the production and distribution companies and that led to save about EGP 3 billion until 30.6.2021.
- Holding periodical meetings for subsidiaries to evaluate the financial, commercial, and technical performance, and follow up on measures to improve performance.
- Preparing the Governance Report that shows the extent of compliance with the various rules of governance practices and the availability of a control environment.

Social Responsibility

I. Decent Life for Villages the Most in Need:

- Pilot studies of the distribution companies in respect of phase I of the presidential initiative "Decent Life" which aims to develop the Egyptian rural villages with a number of 52 centers nationwide were reviewed and sent to the executing agencies (Engineering Authority of the Armed Forces and reconstruction agencies of the Ministry of Housing), provided that the Project Consultant prepares the design drawings and have them approved by the distribution companies.
- Inspections of the rooftops of 3232 schools were completed within the national project for development of Egyptian rural villages "Decent Life", and coordination is underway with the New and Renewable Energy Authority (NREA) to be used in generating solar energy.

II. Preventive measures against the Corona Pandemic:

The medical sector of EEHC and the Medical Services Company are both committed to provide preventive medical services to combat Covide-19 pandemic, whereby the following measures were taken:

- Allocating part of the Electricity Hospital for isolation of Coronavirus infected employees upon the approval of the Ministry of Health that the Hospital is suitably prepared for that purpose and has all necessary capabilities for providing the required health care to Coronavirus patients.
- Sterilizing some villages in the neighborhood of affiliated companies as well as mosques and churches located in these villages to prevent infection with coronavirus.
- Vaccinating the majority of employees and their families with Covid-19 vaccine.
- Disseminating guidelines by posting sign boards to acquaint people with protective means at all headquarters of the Holding Company and its subsidiaries, as well as raising health awareness for employees, spreading health concepts, and enhancing sound health lifestyle.

III. Supporting Presidential Initiatives and Campaigns:

The Training Sector (in Alexandria) organized a multitude of conferences, seminars, campaigns, and presidential initiatives in collaboration with the Ministry of Health to offer free campaign services represented in:

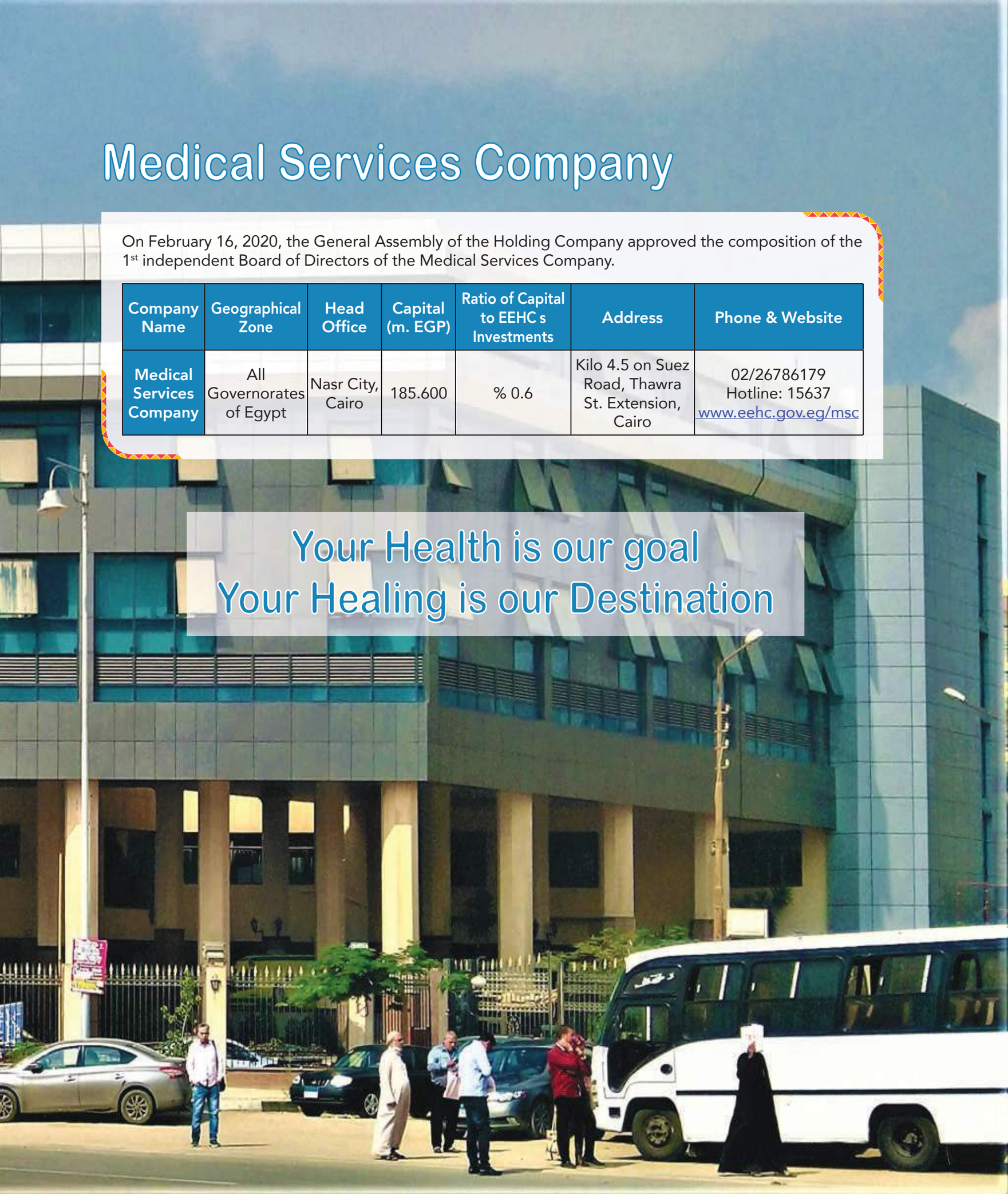
- The "100 million Healthy Lives" campaign.
- The "detection of chronic diseases" campaign.
- The "Go Green" campaign.
- The risks of liver viruses and Coronavirus.
- Rationalization of water consumption.
- Internet risks.

Medical Services Company

On February 16, 2020, the General Assembly of the Holding Company approved the composition of the 1st independent Board of Directors of the Medical Services Company.

Company Name	Geographical Zone	Head Office	Capital (m. EGP)	Ratio of Capital to EEHC s Investments	Address	Phone & Website
Medical Services Company	All Governorates of Egypt	Nasr City, Cairo	185.600	% 0.6	Kilo 4.5 on Suez Road, Thawra St. Extension, Cairo	02/26786179 Hotline: 15637 www.eehc.gov.eg/msc

Your Health is our goal
Your Healing is our Destination



Purposes of the Company:

- Make inclusive development of the health system and medical services provided, in quality and quantity, with due consideration to the economic cost and financial return on the service, while facilitating the means of measurement and assessment.
- Unify the standard of medical services for all employees at all levels.
- Sustain development and training to keep pace with the latest systems by way of raising the efficiency of all elements providing the service (human resources, equipment, and infrastructure).
- Introduce an information system that links all medical sectors of the Company.
- Raise health education for all employees of the Electricity Sector.
- Work on equipping the Company s hospitals and qualifying them for the Egyptian quality accreditation as a first step, then qualifying them for JCI accreditation.
- Preserve the environment in line with national and global standards and community participation.

Medical and Service Sectors of the Company

The Medical Services Company is composed of six medical sectors (Cairo, Giza, Ismailiyah, Assiut, Mansoura and Alex) where standards have been unified with regard to providing medical service at all companies and adding further advantages for the benefit of the employees and the interest of the companies.

During the year 2020/2021, the Company took multiple actions including, for example:

- Upgrading the level of primary medical care services (whether preventive, curative or educational) and expanding the provision of integrated services.
- Improving the level of service provided to outpatients visiting clinics of the companies medical centers and providing distinctive service.
- Inaugurating Tiba Mall Clinics (Nasr City) in April 2021 as an extension to the Electricity Hospital Clinics in Almaza district aiming to alleviate pressure on outpatient clinics at the time of Covid-19 Pandemic outspread, and specialized clinics were also introduced in Assiut Governorate.
- Launching cooperation with the World Health Organization (WHO) in the field of nursing training.
- Signing a cooperation protocol with private universities to train nursing internship students in affiliated hospitals.
- Obtaining an initial approval from the Ministry of Health to establish a five-year nursing institute, where the building has been fully equipped, the organizational structure has been prepared and teaching staff has already been composed.
- Conducting continuous evaluation of employees to improve performance.
- Paying special attention to the file of medical equipment maintenance to ensure that equipment is always maintained in full operational condition at high level of precision.
- Opening a clinic for liver surgery and liver tumors at Almaza Hospital in preparation for introducing liver implantation surgeries at the Hospital.
- Establishing a clinical nutrition unit at the Hospital with the aim to reduce the patient s clinical cycle and provide meticulous medical services that serves other sections such as the specialized internal units (fatty liver unit, artificial nutrition through a tube or veins).
- Continuing to allocate 60 rooms at the Electricity Hospital in Cairo and 10 rooms at Ismailiya Hospital for care of Corona virus patients.
- Introducing two units licensed by the Ministry of Health and Population to provide vaccinating service with the vaccines available in Egypt against Corona Virus to the Employees of the Holding Company and affiliated companies and their families at both Electricity Hospitals in Almaza and Ismailiya.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Commercial, Financial and Financing Activity

EEHC undertakes the management of its securities portfolio and the investment of its funds In a way that enhances the management of available cash liquidity to secure the payment of the inevitable obligations, including petroleum sector dues, loan and wage burdens, and to arrange the necessary financing to implement investment projects in the Holding Company and its subsidiaries.

Electricity Tariff Reform

The globally recognized pricing policies aims to achieve the following:

- Prices realize financial and economic efficiency of the electricity utility .
- Prices cover costs according to feeding voltage .
- Prices reflect the right indicator of electricity usage, taking into consideration the social dimension (i.e., affordable price to consumer), transparency, simplicity, and justice.

- **According to the Electricity Law, EgyptERA (Regulator) has been mandated to review the prices approved by the Council of Ministers for electricity selling tariff, and the Prime Minister s Decision no. 1257 of 2014 was issued in regard to restructuring the selling tariff, as amended by the Decision no. 2259 of 2015.**
- **On 28.4.2020, a decision was issued by EgyptERA in its 9th session in FY 2019/2020 approving the electricity selling tariff for the coming 5 years as from 2020/2021.**
- **On 9.6.2020, the Decree of the Minister of Electricity & Renewable Energy No. 100 of 2020 was issued, which stated in Article (1) that: The electricity tariff and customer service charge for the coming 5 years starting 1.7.2020 on wards shall be in accordance with the tariff and service charge defined in the attached schedules.**

The following table illustrates the electricity tariff and customer service charge for different uses for the second Year 2021/2022.

Purpose of Usage	Demand Charge(1) LE / kWh/m.	Energy Average Price(2) Piaster / kWh	Off Peak (3) Piaster / kWh	On Peak (3) Piaster/ kWh	Customer Service Charge LE / Cons. / m.
Ultra-High Voltage (220 -132 kV.)					
Kima	-	72.0	-		35.0
Metro	-	100.0	-		
Other Subscribers	40.0	105.0	96.9	145.4	
High Voltage (66 - 33 kV.)					
Metro	-	105.0	-		35.0
Other Subscribers	50.0	110.0	101.5	152.3	
Medium Voltage (22 – 11 kV.)					
Irrigation Purposes	60.0	99.90	92.2	138.3	35.0
Water & Sanitation Companies	-	120.0	0.0	0.0	
Other Subscribers	60.0	115.0	106.2	159.2	
Low Voltage (380 V)					
Irrigation	-	95.0	-	-	4.0
Other Subscribers	-	125.0	-	-	15.0
Public Lighting	-	125.0	-	-	

Household Usages	
Consumption brackets (kWh / month)	Piaster / kWh
0 - 50	48.0
51 - 100	58.0
Consumption from 101 to 650 kWh	
0 - 200	77.0
201 - 350	106.0
351 - 650	128.0
Consumption more than 650 kWh	
0 – less than 1000	128.0
0 – 1000 and more	145.0

Commercial Stores	
Consumption brackets (kWh / month)	Piaster / kWh
0 - 100	65.0
Consumption from 101 to 250 Kwh	
0 - 250	120.0
Consumption from 251 to 1000 Kwh	
0 - 600	140.0
601 - 1000	155.0
Consumption more than 1000 kWh	
0 – 1000 and more	160.0

Customer service charge	
Consumption brackets (kWh / month)	LE/Cons./m.
Household Usages	
0-50	1.0
51-100	2.0
101-200	6.0
201-350	11.0
351-650	15.0
651-1000	25.0
More than 1000	40.0
Zero reading & closed units	9.0
Commercial Stores	
0-100	5.0
101-250	15.0
251-600	20.0
601-1000	25.0
More than 1000	40.0
Zero reading & closed units	9.0

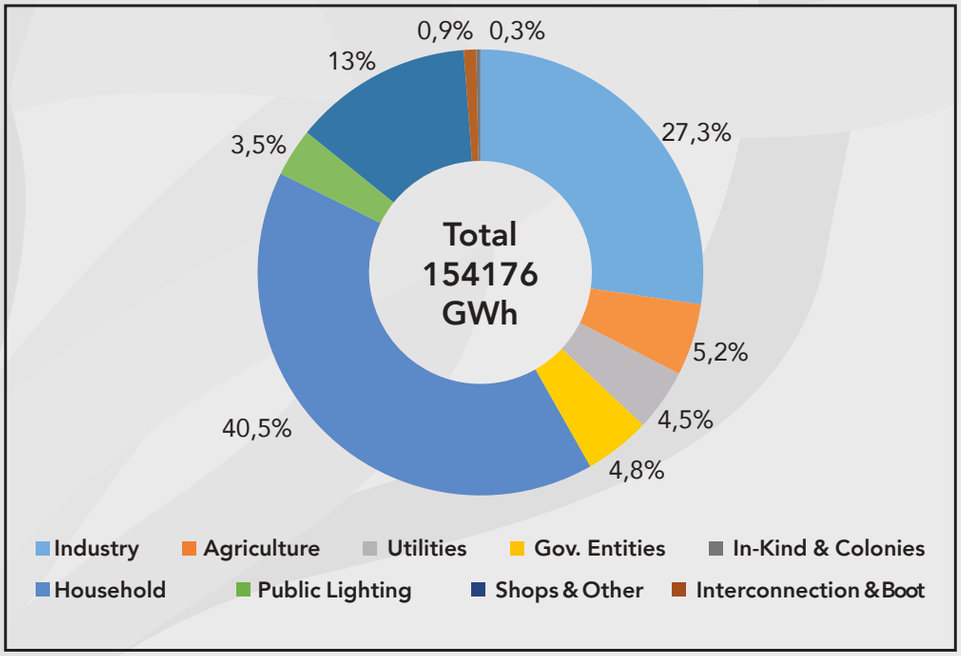
*** Prices are based on a 0.92 Power Factor.**

1. The demand charge is based on the maximum demand of a consumer over 3-month period.
2. In case no meters are available, the applied tariff is the average energy price.
3. The ToU tariff is applied in accordance with the smart meter application program and the peak hour duration is 4 hours starting at a time defined by the Ministry of Electricity and Renewable Energy.

Quantities of Sold Energy According to Purposes (2020/2021)

Type of Usage	Distribution Companies		Transmission Company		TOTAL	
	Quantity GWh	Percentage (%)	Quantity GWh	Percentage (%)	Quantity GWh	Percentage (%)
Industry	20713	16.3	21410	78	42123	27.3
Agriculture	6574	5.2	1349	4.9	7923	5.2
Utilities	6264	4.9	602	2.2	6866	4.5
Gov. Entities	7360	5.8	112	0.4	7472	4.8
Household	62393	49.2	0	0	62393	40.5
Public Lighting	5463	4.3	0	0	5463	3.5
Shops & Others	17953	14.3	2069	7.5	20022	13.0
Interconnection Countries & BOOT	0	0	1427	5.2	1427	0.9
Outgoing energy in kind & colonies	0	0	487	1.8	487	0.3
Grand Total	126720	100	27456	100	154176	100

2020/2021



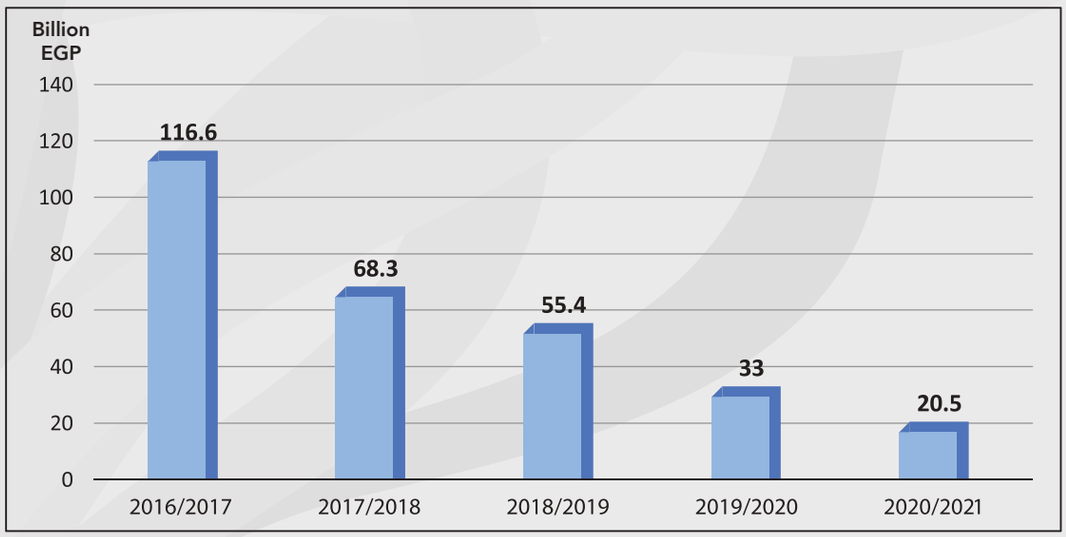
Total Sold Energy on All Voltages Classified According to Usage (GWh)

Type of Usage	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021
Industry	41479	43623	44416	41147	42123
Agriculture	6743	7057	7211	7373	7923
Utilities	6395	6733	6578	6487	6866
Public lighting	5115	4927	5282	4731	5463
Gov. Entities	8630	8562	7705	6905	7472
Household	64125	66809	60115	61542	62393
Shops & Other	18585	19179	19651	19045	20022
Interconnection & BOOT	268	228	568	891	1427
Outgoing energy in-kind & Colonies	266	491	382	396	487
Alfa Company	0	0	0	0.07	0
Grand Total	**151606**	**157610**	**151908**	**148517**	**154176**

Financial Position of EEHC and Subsidiaries

Description		2019/2020	2020/2021	Variation %
Net Fixed Assets	Billion EGP	414.4	417.6	0.77
Inventory	Billion EGP	37.4	43.9	17.4
Cash and Banks	Billion EGP	7.8	15.4	97.4
Net Working Capital	Billion EGP	(51)	(26.8)	47
Equity	Billion EGP	45.7	91.5	100.2
Total Revenues (excluding revenues from exchanged energy)	Billion EGP	164.4	182.5	11
Total Costs & Expenses (excluding expenses of exchanged energy)	Billion EGP	155	160.8	4
Net Profit (Loss)	Million EGP	9.7	21.7	123.7
Total Executed Investments *	Billion EGP	33.0	20.5	(37.8)
Financing burdens (installments & Interests)	Billion EGP	50.6	52.9	4.5
Balances of Loans	Billion EGP	306.9	292.2	(4.8)

Executed Investments in EEHC & Subsidiaries *



* Includes part of the fast-track plan projects in Summer 2015 and EEHC power plants, and the increase in investments is due to the rise in prices of materials resulting from the economic decisions, most importantly the liberalization of foreign exchange rates.

Companies Having Capital Shares by EEHC

Name of Company	Paid up capital	Percentage of Capital Participation
The Egyptian Company for Manufacturing Electrical Insulators	72.5 Million EGP	4.97 %
Electric Power System Engineering Company	5 Million EGP	40%
Egyptian German Electric Manufacturing Company (EGEMAC)	250 Million EGP	62.5 %
Power Generation Engineering and Services Company (PGESCO)	5 Million EGP	20 %
ARABIAN Consultancy Engineering Services Company (ACESCO)	3 Million USD	49 %
Egyptian Syrian Company for Studies and Engineering Consultations *	20 Million SYP	50 %
African Company for Electrical and Mechanical Projects (Libya)*	5 Million LYD	10 %
El-Nasr Transformers & Electrical Products (ELMACO)**	51.3 Million EGP	30.8 %

* Officials will be communicated to verify the the investment existence and value to make a decision on carrying out the necessary impairment or the resumption of business there.

** On 28.9.2020 the Board of Directors of ELMACO in its 17th meeting in 2020 approved the increase of the issued capital and the amendment of Articles 6 & 7 of the Articles of Association.

Consolidated Balance Sheet of EEHC and Subsidiary Companies as at 30.6.2021

(Amounts in 1000 LE)

comparative year 2020	ITEM	Cost	Cumulative Depreciation	Net Value
	ASSETS			
	Non-Current Assets			
414359114	FIXED ASSETS	545878791	128232095	417646696
51205678	projects in progress	52223255		52223255
9936	Intangible Assets	268336		268336
189451	Long-term investments	283983		283983
11576069	Long- term loans & debit balances	9359525		9359525
93380	Other Assets	4803		4803
477433628	**Total Non-Current Assets**	**608018693**	**128232095**	**479786598**
	CURRENT ASSETS			
307	Retained assets for sale	118228	117843	385
37397015	Inventory	43824603		43824603
69331915	Clients, notes receivable & debit accounts	87646256		87646256
7841045	Cash	15381651		15381651
114570285	**Total Current Assets**	**147070738**	**117843**	**146952895**
592003913	**Total Assets**	**755089431**	**128349938**	**626739493**
	Equity			
38306606	Paid-up Capital	53717676		53717676
	Reserves			
5666630	Legal Reserve	12124085		12124085
775876	Capital Reserve	949596		949596
141345	Other Reserves	120182		120182
46035	Revaluation Surplus	46035		46035
2814655	Carried Profit (Loss)	24525442		24525442
45672048	**Total Equity**	**91483016**	**0**	**91483016**
	NON-CURRENT LIABILITIES			
248813517	Long-Term Loans From Banks	222475944		222475944
32880683	Long-Term Loans From Other Entities	32514176		32514176
99529803	Other Long Term Liabilities	106543569		106543569
381224003	**Total Non-Current Liabilities**	**361533709**	**0**	**361533709**
	Current Liabilities			
4321600	Provisions	4841727		4841727
341001	Creditor Banks	68563		68563
160445261	Suppliers , Notes Payable & Credit Accounts	168812478		168812478
165107862	**TOTAL CURRENT LIABILITIES**	**173722768**	**0**	**173722768**
592003913	**TOTAL EQUITY & LIABILITIES**	**626739493**	**0**	**626739493**

Chairman

Eng. Gaber Dessouki Moustafa

Board Member
Financial , Commercial & Financing Affairs

ACC. Nadia Abdel-Aziz Katary

Consolidated Income Statement of EEHC and Subsidiary Companies for the Financial Year ended on 30.6.2021

Comparative Year	Item	1.7.2020 to 30.6.2021	
	Revenues of Current Activity:		
554081	Net Sales of Finished Products (Other than Electricity Sales)	327340	
51787	Net Sales of Finished Products (Energy)	48566	
140081717	Net Sales of purchased goods (Energy)	152103020	
4573	Net Sales of purchased goods (Lamps)	3146	
2642981	Rendered Services(customer service)	2800810	
5459888	Rendered Services(Other)	5678618	
3051257	Revenues of Operation for Others	3472710	
449228	*Electricity Hospital Revenues	11924	
26233	Other Revenues of Current Activity	35005	
152329449	**Total Revenues of Current Activity**		164382337
	Less:		
-138735446	Cost of Production and Purchasing Sold Units	-142506770	
	Plus:		
1238917	Grants and Subsidies(MOF support in gas price difference)	4980428	
811103	Grants and Subsidies(Decrease in Energy prices)	3610561	
956634	Grants and Subsidies(MOF 's share represents 12% in the ambitious plan)	2056456	
15591653	**Gross Profit (Loss)**		32523040
	Plus:		
	Investment Revenues:		
14926	Revenues of Other Financial Investments	13764	
	Other Revenues & Profits:		
1758936	Provisions No Longer Required	78393	
4906095	Miscellaneous Revenues & Profits	5640445	
	Less:		
	Administrative Expenses:		
-31196	Lump sum Salaries, Attendance & Transport Allowances for Board Members	-37463	
-6997892	Other Administrative Expenses	-6959780	
-5299052	Costs of marketing	-5451391	
	Burdens and Losses:		
-1215049	Provisions (other than Depreciation and Fall of Inventory Prices)	-3134533	
-4	Bad Debts	-38467	
-352855	Miscellaneous Burdens and Losses	-874678	
-47395	Fees and expenses for letters of guarantee	-45027	
	Plus:		
1026652	Credit interests	926404	
	Plus (or Less) :		
-113009	Profits (Losses) of Foreign Exchange Differences	-919664	
27310	Capital Profits (Losses)	171356	
403579	Extraordinary Revenues and Profits (Losses)	628940	
9674909	**Net Profit (Loss) Before Income Taxes**		22418382
24524	**Income Taxes		697681
9650385	**Net Profit (Loss)**		21720671

* Comparative revenue belongs to Electricity Hospital

** Income Taxes belong to distribution companies except for North and South Delta electricity distribution company

Chairman

Eng. Gaber Dessouki Moustafa

Board Member
Financial , Commercial & Financing Affairs

ACC. Nadia Abdel-Aziz Katry