

# Sustainable Development Report 2019

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# 1. Message from the Chairman and Chief Executive Officer GRI 102-10 GRI 102-14

Across Europe, green energy and energy transition are now a reality. Greece has launched high and binding energy transition targets, rapidly replacing lignite with clean renewable energy sources. PPC, which has been an important player in the development of Greece for decades, is now leading and pioneering again in this new environment, through its transformation and new strategic plan, which is in line with the ambitious medium and long-term goals of the European Union and of Greece, for climate neutrality in 2050.

The new strategic aim of our Company focuses on three main pillars:

- the **Energy Transition**, through the withdrawal of lignite power plants and corresponding mines, the emergence of renewable energy sources as the new dominant technology of energy production and through the undertaking of a leading role for the development of electromobility in Greece,
- the **Customer Centricity**, adopting a new philosophy that now puts the customer at the center of our business activity, and
- the **Digital Transformation** in Networks, Production Means and Supply, with the parallel development of our human resources.

In this new era for PPC, our strategy could only be based on the principles of the "**Creating Shared Value**" idea. Essentially guided by Sustainable Development, we aim to create shared value between companies, societies, people and the environment. That is why we approach Sustainable Development in full relation to our business model and consequently, to our new strategic direction. Aiming to achieve continuous sustainable operation and following the Global Reporting Initiative (GRI) international standards for the preparation of Sustainable Development Reports, we proceeded with a materiality analysis of our impacts on Sustainable Development.

More specifically, through this process, we identified and prioritized the most material Sustainable Development topics that arise from our business operation, based on the importance of the impacts we create on our stakeholders, as well as the wider economy, society and environment, while capturing the way these impacts contribute to the United Nations Sustainable Development Goals (SDGs). In this report, you will see our approach to managing these material topics, our performance (qualitative and quantitative), namely the way we create shared value, as well as our commitments for the coming years.

Although this Sustainable Development Report contains accounts of our impacts for 2019, we nevertheless consider it necessary to refer to the impact of the COVID-19 pandemic worldwide, but also in our country. PPC, through the integrated emergency response program that it has and has implemented, managed to continue its operation smoothly, implementing -in addition to any of its legal obligations- a series of actions aimed at protecting, informing and raising the awareness of its employees around the pandemic, as well as relieving electricity consumers, through a situation-driven tariff policy. As the pandemic unfolds, we are on constant alert to take any necessary action for our employees, our customers and the wider community, contributing in any way we can to the national effort to tackle it. More information will be available in the next Sustainable Development Report of the Company.

Our Company, in the last year, is consolidating financially and is firmly standing on its feet. We are planning and already implementing the first phase of the next day for the Company, adapting our goals and priorities to the international trends of the energy market. With the help of our employees, who are our driving force, and now incorporating in our course the principles and values of Sustainable Development, we have begun our journey of rebirth, with the ultimate goal of being the role model of a modern energy company. We have a great and long history, but we are now opening a new chapter, creating value for the benefit of the country, consumers and of course the environment.

Because PPC is "One with the future" today.

Georgios I. Stassis  
Chairman and Chief Executive Officer





## 2. About the Report

GRI 102-45 GRI 102-46 GRI 102-48 GRI 102-49 GRI 102-50  
GRI 102-51 GRI 102-52 GRI 102-53 GRI 102-54 GRI 102-56

The 2019 Sustainable Development Report covers the period from 01.01.2019 to 31.12.2019 and is the 10th Sustainable Development Report of PPC. The previous Report concerning the period 01.01.2018 to 31.12.2018, was published on December 20, 2019.

### Scope and boundary

The Report refers to the activities of the parent company Public Power Corporation S.A. (hereinafter "PPC" or "Company") in Greece. In addition, for completeness reasons and to present comparable information, the following are included:

- indicative data for the years 2017 and 2018,
- excerpts (including relevant references) for the PPC Renewables S.A., Lignitiki Melitis S.A. and Lignitiki Megalopolis S.A. subsidiaries.

In cases of previous years data revisions, a relevant justification is included in the respective point.

### Defining content

The Report presents the Sustainable Development programs implemented by PPC, their results, as well as its commitments for the coming years and is addressed to all Company stakeholders.

This Report has been prepared in accordance with the Global Reporting Initiative (GRI) standards: Core option, in order to meet the needs and expectations of PPC stakeholders, as well as to highlight the Company's contribution to Sustainable Development. In order to determine the content of the Report, the Company conducted a Materiality Analysis in 2018 -according to the GRI standards- and the Material Topics that arose are analyzed in this Report. Furthermore, the supplement for the energy sector (GRI - Electric Utilities Sector Supplement), the principles of the AccountAbility AA1000 standard and the criteria of the Greek Sustainability Code were taken into account.

Acacia Forest - Rehabilitated area  
of the West Macedonia Lignite Center

### **Drafting the Report**

The Corporate Social Responsibility (CSR) Section, which belongs to the Corporate Affairs & Communications Department, is responsible for collecting the data of the Report.

The CSR Section follows the data collection process of the Sustainable Development Report that has been established internally in the Company. The specific procedure concerns the formulation of questions to the competent Divisions/Business Units on issues of Sustainable Development and the collection of their answers (qualitative and quantitative information) through electronic forms, which facilitate the uniform way of data processing. An essential role in data collection is played by the CSR team appointed by the CEO, consisting of the Divisions'/Business Units' and Independent Units' employees.

The collected data are approved by the competent Directors and sent to the CSR Section. The CSR Section evaluates the data and may request clarifications, modifications or additional information, where deemed necessary. The correctness and accuracy of the content is confirmed by the competent Departments, from which it has been collected. The Report is approved by the CEO of PPC.

### **Data sources**

The data and the information presented in this Report have been collected and processed from the databases held at PPC headquarters and by its individual departments, with the support of different computer systems, applications, archives and established processes.

### **External assurance**

The Report is subject to external assurance by an independent assurance provider, in accordance with the International Standard on Assurance Engagements 3000 (ISAE 3000). The External Assurance Statement is available on pages 183-185 of this Report.

### **Your opinion is valued**

Your opinion is very important to us. You can send your comments and/or any questions to the following contact details:

#### **PPC S.A.**

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Aliveri TPP, Unit V



# 3. The Company



## 3.1. PPC in figures



-  4,736 Revenues (€ mil.)  
608 Investments (€ mil.)  
168 Financial income (€ mil.)



 5 Mines  
12 Thermal Power Plants  
16 Hydroelectric Power Plants
-  292 (€ mil.)  
Salaries and employee benefits including  
employer social security contributions

 32  
Autonomous and Local Power Plants
-  8,107\*  
Employees

 10,544 MW Installed Capacity:  
26.6% Lignite thermal, 25.5% Natural Gas,  
17.8% Oil, 30.1% Hydroelectric
-  29  
Wind Farms

 22,073 GWh Net Energy Output:  
31.7% Lignite thermal, 32.3% Natural Gas,  
20.8% Oil, 15.2% Hydroelectric
-  28  
Solar Farms

 6,551,332  
Connections
-  18  
Small Hydroelectric Power Plants

 112  
Stores
-  1  
Hybrid Station

\* Full time employees - this includes PPC S.A. employees working at PPC Renewables S.A. and does not include those seconded to health insurance providers.



## 3.2. Activity | | | | | | |-----------|-----------|-----------|------------|------------| | GRI 102-1 | GRI 102-2 | GRI 102-3 | GRI 102-4 | | | GRI 102-5 | GRI 102-6 | GRI 102-7 | GRI 102-10 | GRI 102-45 |

The Public Power Corporation (henceforth "PPC" or "Company"), under the name "PPC S.A." is the largest electricity producer and supplier in Greece. PPC has its own lignite mines, power generation and distribution facilities. It is one of Greece's largest industrial companies in terms of fixed assets and is a leading Public Utility company in the electricity sector in Greece. The Company's registered offices are located at 30 Chalkokondyli st., Athens, GR-10432.

### Operation

The main purpose of operation for PPC is to exercise commercial and industrial activity in the energy sector in Greece and abroad. The design, supervision, construction, utilization, maintenance and operation of power plants, the provision of services and products for electric mobility and sales of related commercial products and equipment are, indicatively, some of its main activities. In addition, the Company's activities include the supply and sale of electricity, mining operations, production and supply of energy raw materials, as well as the assignment, by contractual agreement, of each such project to third parties. Other activities included in the Company's operation, are the establishment of companies, participation in joint ventures, as well as the acquisition of shares of other companies, Greek or foreign, and in general, participating in companies that have a purpose similar to those described above, or whose activity is directly or indirectly related to the purposes of the Company or which have as their purpose the utilization of the movable or immovable property of the Company and the utilization of its resources.

### Organization

PPC is organized and operates in the following key sectors:

- In the mining sector, PPC operates through the Lignite Generation Business Unit. The Lignite Generation Business Unit (former Mines Business Unit) is missioned with researching, extracting, managing and marketing of lignite and other solid energy raw materials, as well as utilizing the production derivatives, with the purpose of contributing to energy security and the economic development of the country, with respect for the environment and the society.
- In the production sector, PPC operates through the Thermal & Hydro Generation Business Unit, whose main task is the development of the production capacity of the Company's thermal and large hydroelectric power plants (HPPs) and their optimal operational utilization and at the same time keep up with the environmental requirements.

On the islands that are not connected to the National Transmission Network, oil-fueled autonomous power stations are operated.

- In the supply sector, PPC operates through the Supply Business Unit. The Supply Business Unit, utilizing the weight of the "heritage" of the largest energy company in Greece and building on its values with reliability and consistency, continues the modernization of its processes, in relation to the broader strategic direction of the Company, in terms of its digital transformation. In this context, the Supply Business Unit, promotes the modern face of the Company, by promoting the sales of electricity and other innovative products and services (i.e. e-bill, energy services), maintaining and developing relationships of trust with customers, responding with innovative technologies to their needs, improving response times, but also the quality of customer service.

### Management Approach

Although PPC no longer holds the monopoly position of the past, as the only fully integrated company in the electricity sector, Supplier of Last Resort and Universal Service Supplier\*, it has increased readiness to address issues of operation of the electricity market.

The Company ensures the following:

- The participation with its positions and its proposals in the formation of the institutional framework in which the Company itself and the market participants operate, and which is determined by the competent bodies of the EU and respectively of the Member State, so that it can operate under the regulations of the "Target Model", covering the main objectives (reliability, security and financial functioning) of the market.
- The expansion of its activities abroad.
- The conclusion of bilateral agreements with important electricity companies in Europe for the import of electricity in Greece, contributing to the country's energy balance.
- The continuous correlation of the availability of its power plants' generation capacity with the fluctuation of the country's load, taking also into consideration the other markets, in order to substantially cover its fuel needs (lignite and natural gas) in accordance with the projected demand.
- The continuous monitoring of the water reservoirs' inflows that cover the network's energy needs in periods of peak load, safeguarding at the same time the irrigation, water supply and ecological supply demand, while keeping the reservoirs within the required safety limits.
- The significant increase in the installed capacity in the northern, but also in the southern system with the construction of new power generation units to cover the needs of the system due to the withdrawal of old units.
- The continuous awareness and training of Its employees, in how to use every technological equipment that will help them perform their tasks better; especially in topics regarding the operation of electricity market.
- The increase in the percentage of RES in PPC's energy mix.

\* Based on the 1352/2020 RAE decision, for the period 29/9/2020 - 28/9/2022 another company was appointed as Supplier of Last Resort. In addition, according to the new institutional framework, PPC is 1 of the 5 Universal Service Supplier.





### Environmental management

All electricity generation activities are regulated by strict laws and regulations at global, european, national and local level. PPC, as part of its activities, manages many different energy sources and technologies, with different environmental characteristics and challenges, and recognizes that environmental performance is key for companies to be able to achieve Sustainable Development and to improve their competitiveness.

Given the wide range of PPC's activities and aiming for the best possible coordination of all involved PPC organizational units, the Environment Department (part of the Strategy & Transformation Division) was established in 2017. The Department handled, among others, the duties that the previous Mines' Environment Department, the Generation's Environment Department and the Environment Unit of the Strategy Department, had.

PPC 's environmental strategy has been harmonized with the EU's and Greece's ambitious medium- and long-term goals for climate neutrality in 2050. In this direction, in 2019 PPC presented its new Business Plan (see material topic "Adapting to the new energy market conditions and strengthening investments"). For the implementation of this new Business plan, the organizational structure of the Environment Department will be adapted accordingly in 2020, in order to create Sections (Entities) exclusively targeted on Climate Change and Environmental Risk Management. At the same time, environmental entities exist in the individual production units (lignite centers and power plants) of the Company.

In addition, the Support Operations Division of PPC, through a specific "Energy Policy" that is available to all employees of the Division and all stakeholders, is committed to the continuous improvement of the energy performance of its buildings, implementing an Energy Management System in accordance with the requirements of the International Standard ISO 50001: 2011.

### Environmental Management Systems

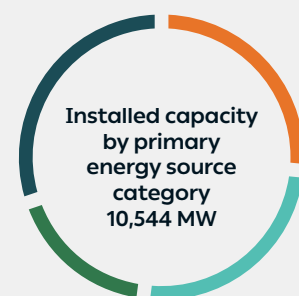
To ensure continuous improvements in its environmental performance, PPC has put in place Environmental Management Systems (EMS), that are gradually certified, at its power generation facilities. To date PPC has certified Environmental Management Systems (ISO 14001:2015) for the West Macedonia Lignite Center and the following power plants which generate around 93% of PPC's total electricity output.

Lignite power plants	Natural gas power plants	Oil power plants	Hydroelectric power plants' complexes
Agios Dimitrios	Keratea-Lavrio	Atherinolakkos	Aliakmon
Amyntaio-Filotas	Komotini	Chania	Arachthos
Kardia - Ptolemaida	Aliveri	Linoreperama	Achelooos
	Megalopoli V	Skyros	Nestos
		Soroni - Rhodes	Ladonas (HPP)

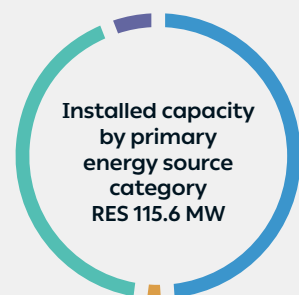
In 2019, the annual inspection of the Environmental Management Systems (EMS) of the PPC facilities mentioned in the above table was carried out successfully. Specifically, 11 Thermal Power Plants (TPPs), 4 Hydroelectric Power Plants' Complexes and 1 Hydroelectric Power Plant (HPP), the Local Power Plant (LPP) of Skyros, as well as the West Macedonia Lignite Center, in the new version of ISO 14001: 2015, after audit by Independent Accreditation Bodies. Simultaneously:

- The process of development and implementation of EMS has been completed, according to ISO 14001: 2015, for the Autonomous Power Plants (APPs) of Chios, Karpathos, Samos and Lemnos.
- The integration of a vertical energy control process to ISO 14001 that will cover all the facilities of the power plant started as a pilot project in the Thermal Power Plant of Keratea - Lavrio. The goal is to gradually implement this process to all the power plants. This process is scheduled to be completed by 2021.
- The West Macedonia Lignite Center was certified to ISO 50001 in March 2019.
- ISO 50001 Certification, during 2019, of the Energy Saving System with scope of application the 3 privately owned buildings of the Company in Athens (Agios Konstantinos 9-11 & Geraniou, Arachovis 32 and September 3rd 107).

Although the subsidiaries Lignitiki Melitis S.A. and Lignitiki Megalopolis S.A. are outside the scope of this Report, it is worth noting that they have Certified Environmental Management Systems (EMS), according to ISO 14001: 2015.



LIGNITE	26.6%
NATURAL GAS	25.5%
OIL	17.8%
HYDROELECTRIC	30.1%



WIND	50%
SOLAR	1%
HYDROELECTRIC (SHPP)	43%
HYBRID	6%

### Installed capacity by primary energy source category\* EU 1

Primary energy source category	Installed capacity 2017 (MW)	Installed capacity 2018 (MW)	Installed capacity 2019 (MW)
Lignite	4,337 (36%)	3,407 (31%)	2,807 (26.6%)
Natural Gas	2,689 (22%)	2,689 (24%)	2,689 (25.5%)
Oil	1,771 (15%)	1,875 (17%)	1,877 (17.8%)
Hydroelectric	3,171 (27%)	3,171 (28%)	3,171 (30.1%)
<b>Total</b>	<b>11,968</b>	<b>11,142</b>	<b>10,544</b>

\* In 2018 and 2019, the installed capacity of the subsidiaries Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A. amounting to 930 MW, is not included.

The total installed capacity in 2019 was reduced (5.4%) in comparison to 2018. This is due to the withdrawal of Units I & II of the Thermal Power Plant of Kardia, with total capacity of 600 MW, in July 2019. In 2018 a small number of units were withdrawn from non-interconnected islands and the new Thermal Power Plant of Kattavia - Rhodes (119 MW) was put into operation. This resulted in a 104 MW increase in electricity generated by oil-fired power plants, in comparison to 2017.

### Installed capacity by primary energy source category RES\*

Primary energy source category RES	Installed capacity 2017 (MW)	Installed capacity 2018 (MW)	Installed capacity 2019 (MW)
Wind	66.66 (54%)	69.14 (54%)	58.37 (50%)
Solar	1.32 (1%)	1.32 (1%)	1.32 (1%)
Hydroelectric (SHPP)	55.22 (45%)	57.82 (45%)	49.12 (43%)
Hybrid	—	—	6.85 (6%)
<b>Total</b>	<b>123.2</b>	<b>128.2</b>	<b>115.6</b>

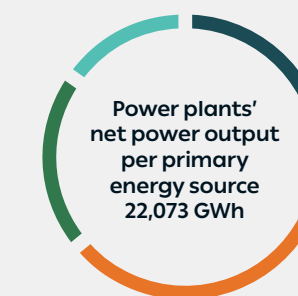
\* The installed capacity described above refers explicitly to PPC Renewables' installed capacity, excluding the installed capacity of affiliated companies, in which PPC Renewables' holds a minority stake.

### Power plants' net power output per primary energy source\* EU 2

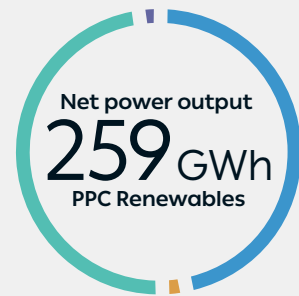
Primary energy source category RES	Net power Output 2017 (GWh)	Net power Output 2018 (GWh)	Net power Output 2019 (GWh)*
Lignite	16,387 (51%)	11,111 (41%)	6,995 (32%)
Natural Gas	7,656 (23%)	6,362 (23%)	7,120 (32%)
Oil	4,827 (15%)	4,586 (17%)	4,595 (21%)
Hydroelectric	3,456 (11%)	5,051 (19%)	3,363 (15%)
<b>Total</b>	<b>32,326</b>	<b>27,110</b>	<b>22,073</b>

\* In 2019, the total net energy output of the subsidiaries Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A. amounted to 3,423 GWh.

In 2019, the total net production of the power plants of the Thermal & Hydro Generation Business Unit of PPC amounted to 22.07 TWh, reduced by 5.04 TWh compared to 27.11 TWh in 2018 (19% decrease). This reduction in production is due to the reduction in the energy generation of lignite-fired power plants in the context of the lignite phase-out policy pursued by the Company (withdrawal of Units I and II of the Kardia TPP). Specifically, lignite production amounted to 6.99 TWh in 2019 compared to 11.11 TWh in 2018 (reduced by 4.12 TWh or by 37%). Production from natural gas rose to 7.12 TWh in 2019 compared to 6.36 TWh in 2018. The production of hydroelectric power plants reached 3.36 TWh in 2019 compared to 5.05 TWh in 2018 (33% decrease). The change in the hydroelectric generation in 2019 compared to 2018 was decreased by 33.4% compared to the 46.2% increase in 2018 compared to 2017. It should be noted that hydroelectric generation in 2018 was high due to extraordinary weather conditions that led to the forced use of hydroelectric generation for reasons of safety of reservoirs from overflows, while in 2019 it decreased due to the low hydraulics of the year (reduced inflows) and forced reduction of hydroelectric generation to maintain safety reserves.



LIGNITE	31.7%
NATURAL GAS	32.3%
OIL	20.8%
HYDROELECTRIC	15.2%



WIND	48.3%
SOLAR	0.8%
HYDROELECTRIC (SHPP)	50.6%
HYBRID	0.4%

### Power plants' net power output per primary energy source - PPC Renewables

Primary energy source	Net power Output 2017 (GWh)	Net power Output 2018 (GWh)	Net power Output 2019 (GWh)
Wind	132 (51%)	122 (47%)	125 (48.3%)
Solar	2 (1%)	2 (1%)	2 (0.8%)
Hydroelectric (SHPP)	124 (48%)	135 (52%)	131 (50.6%)
Hybrid	—	—	1 (0.4%)
<b>Total</b>	<b>258</b>	<b>259</b>	<b>259</b>

The availability rates and average efficiency rates of PPC facilities are shown in the table below. The efficiency rate is affected by the dispatching of the power plants and the utilization rate. **EU 11**

Facilities	2017		2018		2019	
	Availability (%)*	Average efficiency (%)**	Availability (%)*	Average efficiency (%)**	Availability (%)*	Average efficiency (%)**
<b>Interconnected system</b>						
Lignite	70.45	30.72	76.42***	30.89****	67.42	30.14
Oil	—	—	—	—	—	—
Natural Gas	81.30	50.82	70.15	50.79	83.47	50.91
<b>Total</b>	<b>74.52</b>	<b>35.15</b>	<b>73.65</b>	<b>36.03</b>	<b>74.88</b>	<b>37.97</b>
<b>Crete</b>						
Oil (LFO)	82.79	34.10	82.22	34.05	78.16	34.06
Oil (Diesel)	78.42	32.67	79.81	32.76	83.41	33.73
<b>Total</b>	<b>80.32</b>	<b>33.72</b>	<b>80.88</b>	<b>33.70</b>	<b>81.15</b>	<b>33.95</b>
<b>Rhodes</b>						
Oil (LFO)	82.91	36.65	76.67	37.01	82.94	38.29
Oil (Diesel)	96.89	28.52	88.15	28.65	88.46	23.08
<b>Total</b>	<b>90.12</b>	<b>34.86</b>	<b>81.49</b>	<b>35.21</b>	<b>84.58</b>	<b>37.68</b>
<b>Other non-interconnected islands</b>						
Oil	87.76	40.02	89.79	40.14	88.38	40.43

\* Average availability is cited. The calculation in each instance refers to the weighted average availability of all plants using a specific type of fuel. Likewise, 'total' relates to the weighted average availability of all PPC thermal power plants.

\*\* Net efficiency is cited, in other words average efficiency is calculated based on the efficiency rate of the energy output. The calculation relates to the weighted average annual efficiencies for all power plants using a specific fuel. Likewise, 'total' relates to the weighted average efficiency of all PPC thermal power plants.

\*\*\* Average availability of the lignite units of Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A. for 2019 was 68.15% and 68.90% respectively.

\*\*\*\* The average efficiency of lignite units of Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A. for 2019 amounted to 27.08% and 30.72% respectively.

### Interconnected network **EU 4**

	Interconnected network (length in km)		
	Overhead	Underground	Submarine
L. voltage (0.4 kV)	96,113	14,233	2.4
M. voltage (15-20 kV)	87,071	10,136	507
H. voltage (150 kV)	0	217.9	0
	<b>183,184</b>	<b>24,586.9</b>	<b>509.4</b>

	Non-interconnected network (Length in km)		
	Overhead	Underground	Submarine
L. voltage (0.4 kV)	16,255	960	0
M. voltage (15-20 kV)	13,452	962	494
H. voltage (150 kV)	765.8	9.1	0
	<b>30,472.8</b>	<b>1,931.1</b>	<b>494</b>

### Supply **EU 3**

Connections in 2019 amounted to 6,551,332, of which 78% concern residential use, 19% commercial use and 3% rural. In the above analysis the Universal Service Supplier connections is included. In addition to medium and low voltage supplies, PPC also served 92 high voltage supplies. At the end of 2019, there were 112 PPC stores, of which 20 were in Attica, 41 in Northern Greece and 51 in Southern Greece. In addition, there are 7 service points for commercial issues of small and medium enterprises in Athens, Patras, Tripoli, Larissa, Thessaloniki, Kozani and Alexandroupoli.



Rural use	3%
Residential use	78%
Commercial use	19%





Domestic suppliers 96.7%  
Foreign suppliers 3.3%



Domestic suppliers 63%  
Foreign suppliers 37%

The source for the above data is the accounting books of PPC.

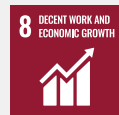
### 3.3. Responsible supply chain GRI 102-9

PPC, in order to meet its needs for materials and services, as well as the implementation of technical projects, proceeds with purchases and conclusion of contracts. The Company - where possible - comes to an agreement with local suppliers, contributing significantly to the development of local economies. PPC procurement procedures are governed by L. 4412/2016 (Government Gazette A'147). The Company posts the call for tenders for works, services and supplies on its website, aiming to develop a public dialogue, under conditions of full transparency and objectivity. In addition to the relevant legislation, there is an internal "Regulation on works, supplies and services of PPC S.A.", which is posted on the relevant announcement page of PPC.

The Company is in constant communication with major suppliers for the exchange of views on the behavior of the supplied equipment and the transfer of know-how. The main categories of procurement include materials - spare parts, fixed support equipment, services, works, liquid fuels, lignite (third parties), natural gas, electricity supply and greenhouse gas emission allowances.

In order for contractors and their subcontractors to comply with the labor and insurance legislation in relation to their staff, depending on the type of service provided, PPC includes a general clause in all the contracts it concludes, according to which the contract is terminated and the contractor is excluded from future tendering procedures, in case of recurrence of non-compliance. For every contractor payment (for the above cases as provided for in the contract) PPC requires proof that the contractor has met his work obligations towards his staff, as well as the corresponding employer contributions.

In this way, the Company ensures its cooperation with contractors who comply with labor laws and have their staff insured, as provided by the relevant legislation. In 2019, there were no cases of violation of labor law by its contractors.



### 3.4. Membership in associations and organizations GRI 102-12 GRI 102-13

PPC actively participates in 37 national and international networks, associations or organizations, aiming to promote constructive cooperation in matters of energy, industry or wider business interest, as well as the promotion of Sustainable Development.

1	Association of Corporate Counsels (ACC DOCKET)	19	Junior Achievement Greece (SEN/JA GREECE)
2	Conseil International des Grands Reseaux Electriques (CIGRE)	20	Greek Tunnelling Society
3	Comite International des Cheminees Industrielles (CICIND)	21	Hellenic Institute of Customer Service
4	European Coal Combustion Products Association (ECOBA)	22	Greek Institute of Entrepreneurship & Sustainable Development
5	Euracoal Association for Coal and Lignite (EURACOAL)	23	Hellenic Institute of Internal Auditors (HIIA)
6	European Energy Forum (EEF)	24	Hellenic Purchasing Institute
7	European Federation of Energy Traders (EFET)	25	American-Hellenic Chamber of Commerce
8	Global Gas Center (GGC)	26	Bulgarian-Hellenic Chamber of Commerce and Industry (BHCCI)
9	Information Systems Audit and Control Association (ISACA)	27	Hellenic-Italian Chamber of Commerce
10	National Association of Corrosion Engineers (NACE)	28	Greek-Israeli Chamber of Commerce
11	Technische Vereinigung der Gross kraftwerks Betreiber (V.G.B.)	29	Hellenic-Czech Chamber of Commerce
12	Transparency International - Greece (through this, inclusion of PPC S.A. in the BIF program)	30	Hellenic Adult Education Association (HAEA)
13	Hellenic Association for Energy Economics (HAEE)	31	Institute of Energy for South East Europe (IENE)
14	Hellenic Laboratories Association (HELLAS LAB)	32	Centre of International & European Economic Law (CIEEL)
15	Hellenic Network for Corporate Social Responsibility	33	Electric Boat Association (EBA)
16	Hellenic Logistics Association	34	Council for Sustainable Development at the Hellenic Federation of Enterprises (SEV)
17	Hellenic Management Association	35	Hellenic Electricity Companies Association (HELAS) Participation to EURELECTRIC is arranged by HELAS
18	Greek Committee on Large Dams (GCOLD)	36	Hellenic Federation of Enterprises (SEV)
		37	Greek Mining Enterprises Association (SME)



## 3.5. Distinctions

PPC won the 3rd prize in the category "Best Public Company" in the "Business Awards MONEY 2019" award ceremony. The winners were selected and awarded, after being evaluated on a number of criteria such as the course of financial performance, their stability, the expansion of their market shares, the company's flexibility in changes in the external environment, the stock market course and the relationship with investors, the level of customer service, etc.

PPC, through the Occupational Health & Safety Department, the Thermal Power Plants Operation Department and the Corporate Affairs & Communications Department, participated in the Health & Safety Awards competition held in March 2019 in Athens and won the following awards:

- Gold award in the category "Health & Safety Culture" for the nomination "Messages of Corporate Social Responsibility from PPC S.A. in Collaboration with the Hellenic Transplant Society and the Doctors of the World" (Occupational Health & Safety Department - Corporate Affairs & Communications Department).
- Gold award in the category "Campaigns" for the nomination "Innovative Action for the Activation of Emotional Intelligence (Neuroscience) of Employees in Health and Safety Issues at the Kardias Thermal Power Plant" (Occupational Health & Safety Department - Thermal & Hydro Generation Business Unit/Kardias Thermal Power Plant).
- Gold award in the category "Professional Road Risks" and silver award in the category "Road Safety" for the nomination "Test of Skills of Drivers - Heavy Machinery Operators PPC S.A. for Safety at Construction Sites" (Occupational Health & Safety Department).
- Silver award in the category "Emergency Response Preparedness" for the nomination "Emergency Response Plan (SAEK) - Exercises at the Thermal Power Plants of Kerateas - Lavrio, Linoperamata, Atherinolakkos and Aliveri" (Occupational Health & Safety Department - Thermal & Hydro Generation Business Unit).
- Bronze award in the category "Staff Training & Awareness" for the nomination "The Employee at the Center of the Company" (Occupational Health & Safety Department)

Moreover, PPC's Testing, Research and Standards Center, was awarded during the VerdeTec exhibition for its contribution to the quality implementation of street lighting upgrade actions of the Municipality of Kalamata, contributing to measurements of lighting intensity and brightness, in simulations of street lighting installations to investigate and verify the required phototechnical result.

The Testing, Research and Standards Center was also awarded the "best scientific project" for the Creation of a Threat Detection System in Smart Networks, in collaboration with the University of Western Macedonia at the International Conference IEEE CAMAD 2019 held in mid-September in Cyprus as part of the European Research Program SPEAR.



Hydroelectric Power, Louros SHPP, Preveza

## 4. Sustainable Development GRI 102-11

### 4.1. Sustainable Development Strategy

PPC's strategic goal is to ensure its sustainable operation and development, while meeting the needs and expectations of all stakeholders, providing comprehensive, innovative and high quality services and products, excellent working environment, mutual benefit relationships with employees and customers, financial development, environmental and social welfare. In order to achieve its strategic goal, and in relation to its business model and sustainability material topics, as these have resulted from the materiality analysis, PPC is committed to the continuous effort to improve its economic, environmental and social performance.

### 4.2. Sustainable Development Policy

PPC's Sustainable Development policy, including the precautionary principle in the identification and management of risks, is available to all stakeholders through the Company's website ([www.dei.gr](http://www.dei.gr)) and is the basic framework of the Management's commitment to Sustainable Development.



## 4.3. Business Model

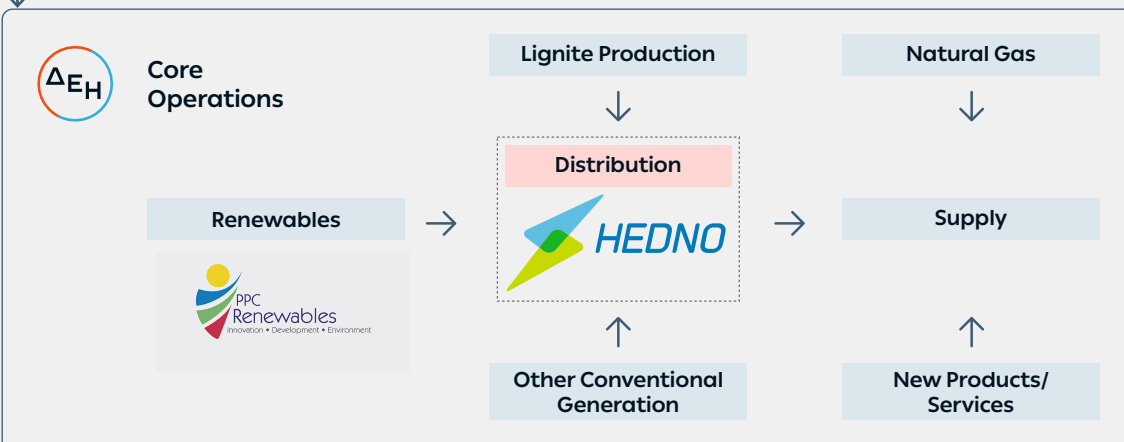
PPC was established in 1950 as a public sector enterprise, tasked with the responsibility of providing electricity to the entirety of the country. Since its transition to an S.A. and the listing of its shares on the Stock Exchange, its operation has been governed by the law on public limited companies. However, the influence of the State on PPC remains significant, especially regarding its public service obligations. As a result, PPC is subject to various laws and regulations that apply to businesses in the wider public sector. For as long as the Greek State holds, even if indirectly, 51% of its share capital, PPC will continue to be regarded as a Greek Public Sector Company. Consequently, its activities will continue to be subject to laws and regulations that apply to companies in the Greek public sector and affect specific procedures.

PPC is being transformed from a vertically integrated company of Business Units, as it was in the early 2000s (Mines, Generation, Transmission, Distribution, Supply), into a Group of Companies, with PPC at its core, which will operate in the generation of energy from conventional forms of energy (lignite, natural gas) and emphasize in increasing renewable energy generation. PPC Renewables, PPC's 100% subsidiary, will be responsible for the implementation of the latter.

As a result, PPC's business model aims to create value for its stakeholders. PPC invests in its employees, its infrastructure and the development of new technologies and services. The Company is in constant consultation with its stakeholders, both nationally and locally, in order to assess the impact of its activity and to improve its performance taking into account the opinion, concerns, needs and proposals of all parties that are affected by and that affect it.

### Key resources

<b>Financial Capital</b> Use of financial capital for investment in the Group's activities	<b>Manufactured Capital</b> Investment in new infrastructure and the upgrade of generation capacity	<b>Intellectual Capital</b> Investment in the development of low carbon technologies, innovative renewable technologies and new products / services
<b>Human Capital</b> Development of qualified personnel, for the efficient operation of companies	<b>Natural Capital</b> Use of natural resources, mainly lignite, and renewable energy sources to generate electricity	<b>Social and Relationship Capital</b> Dialogue and cooperation with the stakeholders, in order to ensure the Group's efficient operation and society's support



<b>Financial Capital</b> Revenues, Salaries and employees' benefits paid, taxes paid	<b>Manufactured Capital</b> Modernized infrastructure for electricity supply and increasing the efficiency of natural resources usage	<b>Intellectual Capital</b> Improving provided services and developing new services/products
<b>Human Capital</b> Providing employee training and development, safeguarding health, safety and wellbeing of employees and partners	<b>Natural Capital</b> Improving energy efficiency through the use of new technologies and promoting renewable energy sources, combating climate change and reducing greenhouse gases and other air emissions	<b>Social and Relationship Capital</b> Social contribution/sponsorships - Relationships/dialogue with local communities, employee volunteering initiatives]

### Value creation



## 4.4. Stakeholders GRI 102-40 GRI 102-42 GRI 102-43 GRI 102-44

It is particularly important for PPC to communicate and cooperate with its stakeholders. PPC has identified its stakeholder groups via a series of internal consultations, debates and working meetings between the PPC Management team and its executives. The main identified stakeholder groups for PPC are its Employees, its Customers, the State, Regulatory Authorities and Public Bodies, Shareholders and Investors, Non-Governmental/Non-Profit Organizations, Regions, Local Authorities and Local Communities, as well as its Partners and Suppliers and other Peer companies.

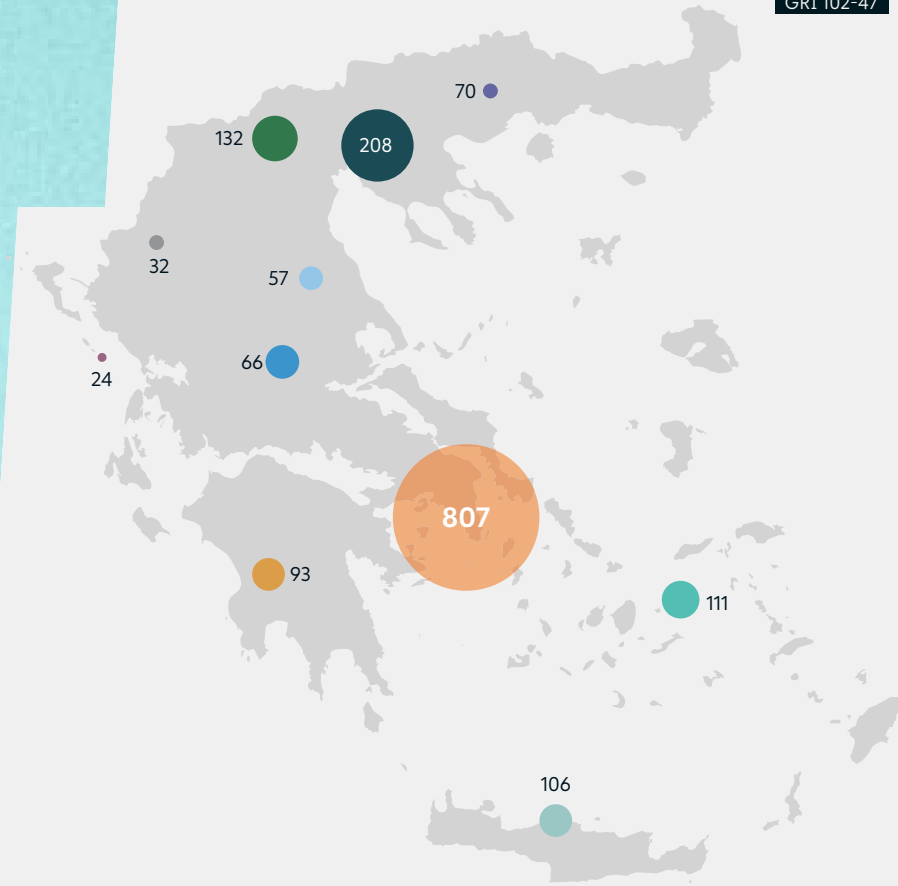
Stakeholder engagement is an integral part of the daily work of the Company, in order to understand the impact of its activity and to improve its performance taking into account the opinions, concerns, needs and proposals of all parties that are affected by and affect it.

The following table summarizes the main categories of stakeholders, the main topics of interest, the methods of communication with them, as well as the frequency of communication, in the context of our daily operation.

Stakeholder group	Communication frequency	Communication method	Main topics of interest (according to materiality analysis)
Employees	Continuous	<ul style="list-style-type: none"> <li>Trade unions</li> <li>Employee representatives on the BoD and at the general meetings of shareholders</li> <li>Disciplinary and staff advancement committees</li> </ul>	<ol style="list-style-type: none"> <li>Providing employee training and development</li> <li>Generating economic value / economic performance</li> <li>Creating and developing employment</li> </ol>
Customers	Continuous	<ul style="list-style-type: none"> <li>Stores</li> <li>Telephone service lines</li> <li>Company website, customer satisfaction surveys</li> <li>Targeted communication actions (direct mail) with selected customers</li> <li>Specialized application (app)</li> </ul>	<ol style="list-style-type: none"> <li>Minimizing waste and increasing the implementation of circular economy practices</li> <li>Increasing the efficiency of natural resources usage</li> <li>Improving energy efficiency through the use of new technologies and promoting renewable energy sources</li> </ol>
The state, Regulatory Authorities and Public Bodies	Continuous	<ul style="list-style-type: none"> <li>Committees and consultative bodies, at national and European level, on environmental and energy market liberalization and operation issues</li> </ul>	<ol style="list-style-type: none"> <li>Combating climate change and reducing greenhouse gases and other air emissions (e.g. NOx, SOx, VOCs)</li> <li>Reducing dust, noise and visual / aesthetic nuisance</li> <li>Minimizing waste and increasing the implementation of circular economy practices</li> </ol>

Stakeholder group	Communication frequency	Communication method	Main topics of interest (according to materiality analysis)
Shareholders and Investors	On a scheduled basis	<ul style="list-style-type: none"> <li>Company website</li> <li>Presentations of financial results (quarterly basis)</li> <li>Conducting conference calls with analysts</li> <li>Business presentations (roadshows) in Greece and abroad</li> </ul>	<ol style="list-style-type: none"> <li>Increasing the efficiency of natural resources usage</li> <li>Protecting ecosystems and preserving biodiversity</li> <li>Improving energy efficiency through the use of new technologies and promoting renewable energy sources</li> </ol>
Non-Governmental/Non-Profit Organizations	Ad hoc	By submitting questions and requests for sponsorships to the Company	<ol style="list-style-type: none"> <li>Protecting ecosystems and preserving biodiversity</li> <li>Safeguarding health, safety and wellbeing of employees and partners</li> <li>Minimizing waste and increasing the implementation of circular economy practices</li> </ol>
Regions, Local Authorities and Local Communities	Continuous	<ul style="list-style-type: none"> <li>Formally: submission and evaluation of specific requests</li> <li>Informally: daily contact of executives with representatives of local communities and authorities</li> </ul>	<ol style="list-style-type: none"> <li>Combating climate change and reducing greenhouse gases and other air emissions (e.g. NOx, SOx, VOCs)</li> <li>Reducing dust, noise and visual / aesthetic nuisance</li> <li>Improving energy efficiency through the use of new technologies and promoting renewable energy sources</li> </ol>
Partners and Suppliers	Continuous	<ul style="list-style-type: none"> <li>Through the posting of call for tenders for works, services and supplies on the Company's website</li> <li>Through informal communication with major suppliers to exchange views on the behavior of the supplied equipment and the transfer of know-how</li> </ul>	<ol style="list-style-type: none"> <li>Minimizing waste and increasing the implementation of circular economy practices</li> <li>Protecting ecosystems and preserving biodiversity</li> <li>Increasing the efficiency of natural resources usage</li> </ol>
Peer companies	Ad hoc	Through participation in consultations with competent bodies, as well as in sectoral organizations and associations	<ol style="list-style-type: none"> <li>Improving energy efficiency through the use of new technologies and promoting renewable energy sources</li> <li>Generating economic value / economic performance</li> <li>Assessing supplier ESG performance</li> </ol>

GRI 102-46  
GRI 102-47



**Geographical allocation**

- Attica
- Central Macedonia
- Western Macedonia
- Aegean Islands
- Crete
- Peloponnese
- Eastern Macedonia and Thrace
- Mainland Greece (excluding Attica) and Evia
- Thessaly
- Epirus
- Ionian Islands

## 4.5. Materiality analysis

At PPC, we focus our attention on topics related to the creation of long term value for the Company and the wider economy, society and environment, where we operate. In order to identify the most material topics of Sustainable Development on which we will focus our strategy in the coming years and which concern and affect our stakeholders, we conducted (in 2018) a materiality analysis, with the participation of over 1,700 representatives from all of our stakeholder groups.

### Material topics identification by Management

PPC has developed a sustainable development materiality analysis process, as part of its risk identification and assessment process. However, in this case it does not identify operational or financial risks, but sustainable development risks/impacts. The topics set for evaluation were determined by analyzing the results from previous years' assessments and taking into consideration the current Company practices and market conditions.

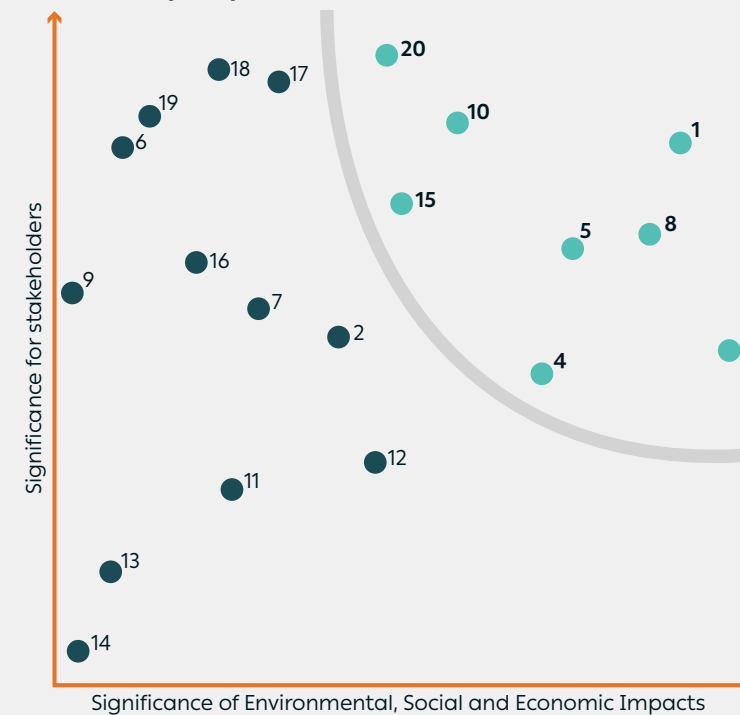
### Material topics identification by stakeholders

PPC acknowledges that its business operations and decisions affect and are affected by different groups of stakeholders. The Corporate Social Responsibility Section contacted its stakeholders using an online questionnaire, asking them to evaluate/score what were in their opinion, the PPC's sustainability material topics. After a period of around 1 month during which the questionnaire was open, PPC had collected 1,706 responses from all stakeholder groups from all regions of Greece.

### Material topics prioritization

The results of the PPC in-house process and the results generated by processing Stakeholder questionnaires were then presented in a single material topics heatmap. In the following diagram, the horizontal axis depicts PPC Management's views (which is derived by multiplying the impact of each topic by the corresponding likelihood of it occurring), while the vertical axis depicts the Stakeholders' views.

### Materiality Map\*



\* Some material topics were consolidated, as they emerged from the materiality analysis 2018, due to similar thematic and for reasons of information consistency.

### Material Topics

1. Generating economic value / economic performance
3. Adapting to the new energy market conditions and strengthening investments
4. Reinforcing corporate governance, business ethics and regulatory compliance
5. Ensuring emergency preparedness and resilience
8. Creating and developing employment
10. Improving the services provided and developing new services/products
15. Combating climate change and reducing greenhouse gases and other air emissions (e.g. NOx, SOx, VOCs)
20. Improving energy efficiency through the use of new technologies and promoting renewable energy sources

### Other Identified Topics

2. Assessing supplier ESG performance
6. Safeguarding health, safety and wellbeing of employees and partners
7. Providing employee training and development
9. Safeguarding human rights at work
11. Relationships / dialogue with local communities
12. Participating in shaping the energy policy
13. Social contribution / sponsorships
14. Corporate volunteering initiatives
16. Reducing dust, noise and visual / aesthetic nuisance
17. Minimizing waste and increasing the implementation of circular economy practices
18. Increasing the efficiency of natural resources usage
19. Protecting ecosystems and preserving biodiversity















**Significance and boundaries of material topics** GRI 102-46 | GRI 103-1

The information in the table below, based on the requirements of the GRI Standards, presents the material topics that arose:

- Why each topic is material:
  - Which are the stakeholders affected by the material topics (based on the results of the Company's materiality analysis).
  - Which are the U.N. Sustainable Development Goals (SDGs) that the Company contributes to (wider economic, social and/or environmental impacts).
- Who causes these impacts:
 

The cause of each impact may occur at different stages of the Company's value chain. Consequently, some are caused directly by the Company and some indirectly by a third party whose activities are related to the Company (downstream or upstream).

Material topic	Why the topic is material		Boundaries	
	Wider economic, social and / or environmental impacts caused by the topic	Stakeholders directly affected (economically, socially and / or environmentally) by the topic	Affected by the Company	Stakeholders outside the Company that may cause or are associated with the impacts of the topic
Improving energy efficiency through the use of new technologies and promoting renewable energy sources	     	<ul style="list-style-type: none"> <li>Employees</li> <li>Customers</li> <li>The State, Regulatory Authorities and Public Bodies</li> <li>Shareholders and Investors</li> <li>Non-Governmental/Non-Profit Organizations</li> <li>Regions, Local Authorities and Local Communities</li> <li>Partners and Suppliers</li> <li>Peer Companies</li> </ul>	✓	<ul style="list-style-type: none"> <li>Customers</li> <li>The State, Regulatory Authorities and Public Bodies</li> <li>Non-Governmental/Non-Profit Organizations</li> <li>Regions, Local Authorities and Local Communities</li> <li>Partners and Suppliers</li> <li>Peer Companies</li> </ul>
Combating climate change and reducing greenhouse gases and other air emissions (e.g. NOx, SOx, VOCs)	    	<ul style="list-style-type: none"> <li>Employees</li> <li>Customers</li> <li>The State, Regulatory Authorities and Public Bodies</li> <li>Shareholders and Investors</li> <li>Non-Governmental/Non-Profit Organizations</li> <li>Regions, Local Authorities and Local Communities</li> <li>Partners and Suppliers</li> <li>Peer Companies</li> </ul>	✓	<ul style="list-style-type: none"> <li>Customers</li> <li>The State, Regulatory Authorities and Public Bodies</li> <li>Non-Governmental/Non-Profit Organizations</li> <li>Regions, Local Authorities and Local Communities</li> <li>Partners and Suppliers</li> <li>Peer Companies</li> </ul>
Generating economic value / economic performance		<ul style="list-style-type: none"> <li>Employees</li> <li>Customers</li> <li>Shareholders and Investors</li> <li>Partners and Suppliers</li> <li>Peer Companies</li> </ul>	✓	<ul style="list-style-type: none"> <li>Customers</li> <li>Partners and Suppliers</li> <li>Peer Companies</li> </ul>

Material topic	Why the topic is material		Boundaries	
	Wider economic, social and / or environmental impacts caused by the topic	Stakeholders directly affected (economically, socially and / or environmentally) by the topic	Affected by the Company	Stakeholders outside the Company that may cause or are associated with the impacts of the topic
Creating and developing employment	 	<ul style="list-style-type: none"> <li>Employees</li> </ul>	✓	<ul style="list-style-type: none"> <li>The State, Regulatory Authorities and Public Bodies</li> <li>Regions, Local Authorities and Local Communities</li> <li>Peer Companies</li> </ul>
Improving the services provided and developing new services/products	     	<ul style="list-style-type: none"> <li>Employees</li> <li>Customers</li> </ul>	✓	<ul style="list-style-type: none"> <li>Customers</li> </ul>
Reinforcing corporate governance, business ethics and regulatory compliance	 	<ul style="list-style-type: none"> <li>Employees</li> <li>Shareholders and Investors</li> <li>The State, Regulatory Authorities and Public Bodies</li> </ul>	✓	<ul style="list-style-type: none"> <li>The State, Regulatory Authorities and Public Bodies</li> </ul>
Ensuring emergency preparedness and resilience	      	<ul style="list-style-type: none"> <li>Employees</li> <li>Customers</li> <li>Shareholders and Investors</li> <li>Regions, Local Authorities and Local Communities</li> <li>Partners and Suppliers</li> </ul>	✓	<ul style="list-style-type: none"> <li>Customers</li> <li>Regions, Local Authorities and Local Communities</li> <li>Partners and Suppliers</li> </ul>
Adapting to the new energy market conditions and strengthening investments	  	<ul style="list-style-type: none"> <li>Employees</li> <li>Shareholders and Investors</li> </ul>	✓	<ul style="list-style-type: none"> <li>Customers</li> <li>The State, Regulatory Authorities and Public Bodies</li> <li>Non-Governmental/Non-Profit Organizations</li> <li>Regions, Local Authorities and Local Communities</li> <li>Partners and Suppliers</li> <li>Peer Companies</li> </ul>



Acacia flowers in the rehabilitated area of the West Macedonia Lignite Center

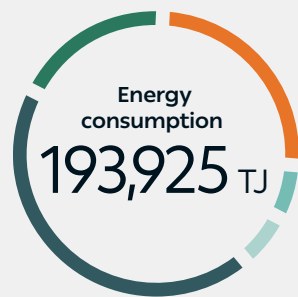
## 5. Environmental

### 5.1. Improving energy efficiency through the use of new technologies and promoting renewable energy sources GRI 103-2



PPC's energy consumption is mainly related to electricity generation. Very small amounts of energy (in relation to the consumption of energy for the generation of electricity) are consumed for the operation of the Company's buildings (space heating/cooling and electrical purposes), as well as for company vehicles (service and corporate vehicles).





LIGNITE	44%
LFO	18%
DIESEL	6%
HYDROELECTRIC	6%
NATURAL GAS	26%

Data are calculated by THERMO software, deriving from the input of primary data from the thermal power plants into the operation monitoring software of the plants.

### Our performance GRI 103-3 GRI 302-3 GRI 302-4

Total energy consumption of the Company (excluding the energy consumption of the subsidiaries Lignitiki Melitis S.A. and Lignitiki Megalopolis S.A.) amounted, in 2019, to 193.92 PJ. Compared to 2018 (241.91 PJ) there is an overall decrease of about 20% attributed to the following:

- reduction of heat consumption from lignite production,
- increase in heat consumption by gas plants, and
- reduction of the generation by hydroelectric power plants due to the low hydraulicity of the year (reduced inputs) and forced reduction of the hydroelectric generation for the maintenance of safety stocks.

Consumption figures can be broken down as follows:

- Fuel consumption in thermal plants, including consumption by the plants themselves and consumption for district heating.
- Electricity consumed by PPC hydroelectric power plants.
- Fuel consumption for company vehicles and for heating company buildings.
  - PPC operates a fleet of 1,429 vehicles including 1,075 with ordinary license plates, 151 which are only used within the boundaries of the company's premises as well as 203 vehicles with license plates issued with Prefectural authorization. Data is available about fuel consumption and vehicle usage for 37% of the vehicles with ordinary license plates. Those vehicles travelled 4.03 million km.
  - Fuel consumption data for buildings only relates to buildings in Attica. Natural gas use is also included. Electricity consumption in buildings is not included since the quantities concerned are generated by the Company itself and are included in the figures for energy consumed in generating electricity.
- Energy intensity (defined as energy consumed to generate electricity/revenues from the sale of electricity) in 2019 was calculated at 40.9 MJ/€.

### PPC's investment program

The total investments within the Lignite Generation Business Unit and the Thermal and Hydro Generation Business Unit in 2019 amounted to € 372.7 million. In the context of the implementation of PPC's strategic priorities, the Lignite Generation and the Thermal and Hydro Generation Business Units, have undertaken to carry out investment projects to replace obsolete plants with new, environmentally-friendly, technologically-advanced and higher efficiency plants. Regarding the progress of these projects in 2019, the following are noted:

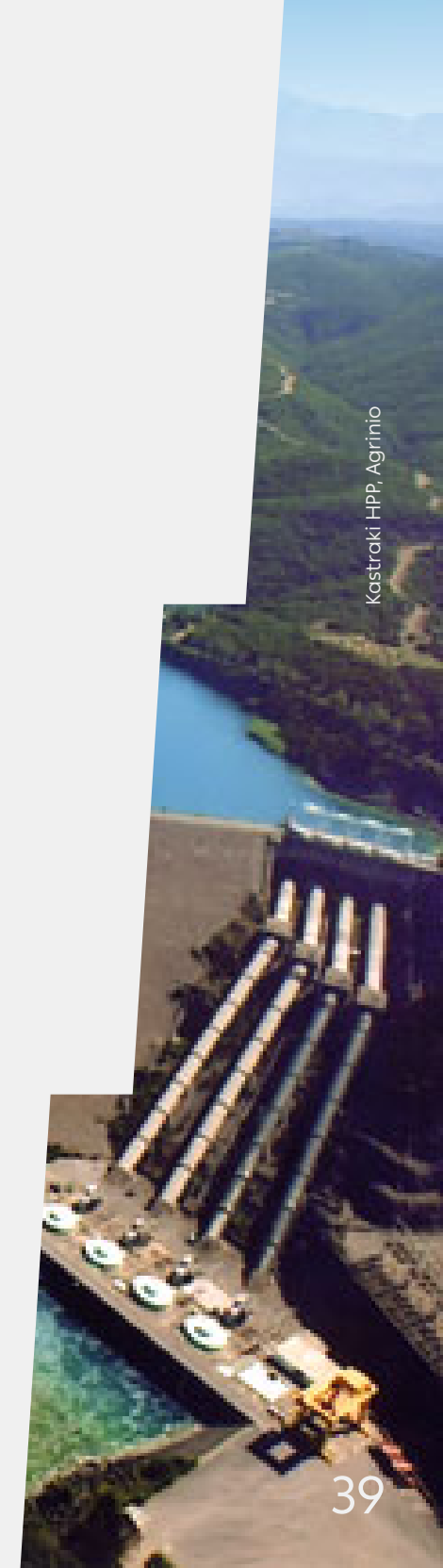
### Thermal Power Plants:

- Megalopolis V combined cycle plant, with net power, in reference conditions, 811 MW, natural gas-fired: The plant was put into commercial operation on 27.01.2016. Performance tests of the plant have already been performed and the evaluation report of the tests in question was submitted to the PPC by a third party. Also, the tests of compliance of the plant with the Management Code of the Hellenic Electricity Transmission System have been completed and the plant is registered with the Register of Dispatchable Generating Units kept by IPTO (Independent Electricity Transmission Operator S.A.). In 2019, the Final Acceptance Protocol was approved.
- Thermal Unit V of Ptolemaida Thermal Power Plant, with installed capacity 660 MW, pulverized lignite-fired and with the capability of providing 140 MWTH of thermal energy for district heating: On 24.04.2015, the installation permit of the project was issued by YPEN (former YPAPEN). On 01.07.2015 the building permit of the project was issued. PPC has already paid to the contractor, according to the contract, the two advanced payments, amounting to € 198 million each against corresponding letters of guarantee of advance payment amounting to € 227 million each.

At present, the submission of studies and plans for the equipment of the project continues, as well as for the construction of the civil engineering and E/M equipment projects. 91% of the mechanical equipment, 87% of the electrical equipment, 61% of the automation, instrumentation and control (I&C) equipment and 73% of the water treatment and chemical processing equipment have arrived and been invoiced at the construction site. The certified works of civil engineers have been completed at a rate of 89%, the construction works of mechanical equipment at a rate of 63%, the construction of electrical equipment at a rate of 62%, the construction of automation, instrumentation and control equipment at a rate of 4% and construction of water treatment equipment and chemical processes at a rate of 26%. The cost for the project in the fiscal year 2019 amounted to € 308.3 million.

### Hydroelectric power plants:

- Mesochora Hydroelectric Power Plant (160 + 1.6 MW): The Decision for approving Environmental Terms (AEPO) was issued for the Mesochora HPP, based on which it is foreseen that PPC will carry out protection projects for the preservation of part of the Mesochora settlement. In parallel with the process for the expropriation of the remaining areas flooded by the reservoir and sections A, B, and C of the settlement of Mesochora and the fulfillment of the obligations introduced by the new Joint Ministerial Decision for approving Environmental Terms, the drafting of the procurement documents for the remaining projects is being planned and the project is estimated to be put in operation in 2023. It is noted that among the actions that must precede the blockade, there are actions beyond the responsibility and control of the Company, such as the preparation and approval of spatial and residential organization studies, urban planning studies, as well as expropriation (B phase) of the areas to be extended and relocation of the settlement (responsibility of the Municipality). Due to the above, delays in the estimated operating time may occur.



Kastriaki HPP, Agrinio





- Hilarion hydroelectric power plant (153 + 4.2 MW): The Hilarion HPPs have been registered with the Register of Dispatchable Generating Units kept by IPTO (ADMIE) since 2018. Out of the three relevant contracts for the project, two have been executed at 100% and the third at 99.65%.
- Metsovitiko Hydroelectric Power Plant (29 MW): The construction schedules have been affected by the delay in the issuance of building permits. The impact of these delays on the progress of the project will be assessed after obtaining the necessary approvals. During 2019, civil engineering works were carried out and the preparation of E/M equipment studies was in progress. The procurement, installation and commissioning of the received E/M equipment is also in progress. The cost of the project for 2019 amounted to € 2.5 million.

#### Non-Interconnected Islands (Crete, Rhodes, etc.):

- New Thermal Power Plant in South Rhodes, with net power 115.4 MW, consisting of seven identical generating sets with four-stroke diesel engines. The construction of the power plant has been largely completed. The protocol for the end of the commercial operation of the power plant was signed, the performance tests of the power plants were carried out during continuous operation and an application has been submitted by the contractor for temporary acceptance of the project. The cost for the project in 2019 amounted to € 14.4 million.
- Other Non-interconnected islands:  
The investment in the Other Non-Interconnected Islands by the Thermal and Hydro Generation Business Unit in 2019 amounted to € 8 million.

#### Renewable Energy Sources

PPC's environmental strategy includes, in addition to the development of low-emission technologies, significant investments to increase the share of production resulting from the utilization of the country's hydro potential and the development of RES utilization projects (through PPC Renewables and in cooperation with other private investors).

The Company, taking advantage of the topographic relief of the country, builds dams and creates artificial lakes utilizing the hydrodynamics of the country with respect to the balance of supply and demand at the level of river basin in each water district. Today, PPC owns and operates 18 large hydroelectric power plants in various parts of Greece.

It is noted that the Sfikia Hydroelectric Power Plant in Aliakmonas and Thisavros in Nestos act as reversible-pumping stations, in other words they store any excess of electricity to deliver it later when there is excessive demand in relation to production.

#### Voluntary Initiatives and research programs

In order to reduce the environmental footprint of productive activities for the production of electricity and in the context of the continuous effort for research and development, PPC participates in a series of voluntary initiatives and research programs and implements relevant actions. The following are indicative:

1. Cooperation with the European Bank for Reconstruction and Development, for the "Development of an Information Disclosure Plan according to the guidelines outlined by the Task Force on Climate-related Financial Disclosures (TCFD)".
2. Participation in the Working Group of EURELECTRIC on Climate Change and Decarbonization.
3. Participation in the National Action, Research-Create-Innovate with two research projects on climate change mitigation and environmental protection, in the thematic section of Environment and Sustainable Development.
  - COFORMIT - COntribution FOrests MITigation (Title: "Contribution of the Tree Planted Areas of the West Macedonia Lignite Center to the Protection of the Environment and the Mitigation of Climate Change").
  - CO<sub>2</sub> - BIOPRODUCTS (Title: "Utilization of CO<sub>2</sub> through Microalgae Cultures for the Production of High Value Biochemical Products").

The above projects are co-financed by the European Regional Development Fund (ERDF) of the European Union and National Resources, through the Operational Program "Competitiveness, Entrepreneurship and Innovation".

The COFORMIT project is carried out in collaboration with the Department of Forestry and Management of Natural Environment and Natural Resources of the Democritus University of Thrace and the company "ena DEVELOPMENT CONSULTANTS". The project will scientifically document the contribution of the tree planted land of the Ptolemaida and Amyntaio mines to the mitigation of climate change and the protection of the environment, in addition to highlighting the environmental services that these areas offer to the region for the protection of biodiversity. It includes the creation of a model park for recreation and environmental awareness that will significantly contribute to the preservation and promotion of biodiversity in the area and is expected to offer the following to the Company and the local community:

- Reduction of the environmental footprint of the Company, as it can be included among the actions that add to the reduction of CO<sub>2</sub> emissions, and the contribution of the tree planted land of the West Macedonia Lignite Center.
- Economic and social benefits for the local community, taking into account the creation of jobs before and after the completion of the project and the provision of multiple goods and services in the area, from the creation of the recreation and environmental awareness park.

During 2019, the tasks of the first section were completed. These include mapping of the existing condition of the plantations, identifying above-ground and below-ground biomass, assessing carbon



on forest floor, dead wood and soil, and calculating the contribution of tree planted land in mitigating air pollution. In the summer of 2019, a tower with a monitoring system was installed, to record the seasonal and temporal changes of CO<sub>2</sub> storage using the eddy covariance method, in a restored area of the Amyntaio mine.

At the end of the year, a conference was held at the premises of the West Macedonia Lignite Center titled "The contribution of the tree planted land at the West Macedonia Lignite Center to CO<sub>2</sub> capture and environmental protection" for which an invitation and informational leaflets were issued. Information about the project and the conference are available on the Company's website, <https://www.dei.gr/el/i-dei/perivallon/ereunitiko-ergo-coformit/> and on the project's website <http://comit.fmenr.duth.gr>.

For the CO<sub>2</sub> - BIOPRODUCTS project, PPC participates in a consortium of institutions consisting of the Institute of Chemical Processes and Energy Resources of the National Research Center and Technological Development (CERTH/IDEP), as coordinator, as well as in four research and development bodies and a company of food products development. The goal of the project is to utilize the CO<sub>2</sub> of the exhaust gases of the power plants through cultures of special microalgae strains for the simultaneous capture of CO<sub>2</sub> and the production of products of commercial value such as fats, oils and biomass.

Also, during 2019, more activities took place, such as:

- The evaluation of the biotransformation potential of the CO<sub>2</sub> released from power plants, with PPC providing the quantitative and qualitative characteristics of the exhaust gases, in order to investigate the suitability of the selected microalgae strains for CO<sub>2</sub> capture.
- Study of the selected microalgae strains on the possibility of cyanotoxin production and the content of biomass in bioactive components, based on the characteristics of the CO<sub>2</sub> feed mixture and for optimal culture conditions.
- Application of statistically optimized parameters in new crops for the purpose of qualitative and quantitative correlation between CO<sub>2</sub> mixtures and biomass concentration, content of bioactive compounds.

#### Internal Communication

PPC, through the Corporate Affairs & Communications Department, develops coordinated efforts to communicate with its employees, by informing them on all actions and developments in energy issues, in order to create a strong bond between them. In this way the improvement of the employees' efficiency is achieved and the relations between them are improved.

This communication is achieved through:

- the intranet portal of the company as well as the Department's email.
- personal communication via telephone as well as other electronic means, through its executives.

Other internal communication actions implemented in 2019 are:

- Monthly staff briefing on European energy market issues based on EURELECTRIC (The Union of the Electricity Industry) newsletters.
- Briefing of executives and employees on a weekly and monthly basis or ad hoc for:
  - Current institutional, regulatory, etc. issues that are ongoing and promoted at various levels (European Commission, European Parliament, etc.) and are of direct interest to European energy companies.
  - Studies, reports, etc. concerning the course and prospects of energy and electricity companies.
  - Compilation of comprehensive briefing notes on presentations made on the occasion of workshops, conferences, etc., which were carried out in Greece and concerned energy, energy technologies, environmental protection policies, etc. and which are of interest to PPC executives and employees.
  - Sending briefing notes to employees about various actions carried out within the Company, such as: Full Scale Exercises in the framework of the Emergency Management Plan implemented by PPC at its facilities.

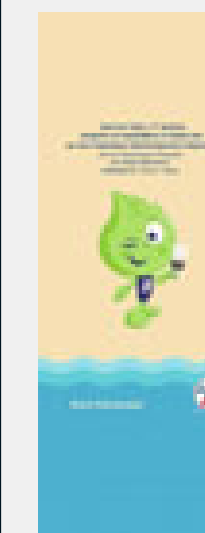
#### Informing clients and the general public

Informing and raising public awareness on energy savings and the protection of the health and safety of consumers and users of electricity, is a key concern of PPC.

Since 2016, the new PPC website, Save Energy - Share Life, is available online ([www.dei.gr/el/green-pages](http://www.dei.gr/el/green-pages)). This website provides comprehensive information on Energy Services and related European Union announcements, while also providing information on Greenpass, how to obtain it, as well as the relevant institutional and commercial framework. Users have access to the online Energy Saving tool, which has been available since the beginning of 2014, in order to inform and raise public awareness about the rational use of electricity. This tool provides users with the ability to calculate household energy consumption, while at the same time offering energy saving tips and improving the energy classification of their household, through proposed energy upgrade actions. According to the data kept by PPC, in 2019, 11,063 individual different users visited the above website.

#### Learning how to save energy

In 2017, within the framework of the energy efficiency enforcement regime of article 9 of L. 4342/2015, PPC was entrusted with the design and implementation of energy saving actions regarding the end use. In accordance with this decision, as well as the Sustainable Development Strategy of the Company, PPC proceeded during the year to design an educational program for primary schools, with the aim of informing and sensitizing students on energy issues and environmental protection.



«Little Saver» Energy Savings Program

For 2019, the program was implemented in 90 schools and trained a total of 18,266 students who attend kindergartens and primary schools of the Municipalities of Peristeri, Egaleo, Agia Varvara, Ilion, Petroupoli, Agioi Anargyroi-Kamatero and Chaidari. The goal of the program is to inform and raise the awareness of kindergarten and primary school students about the contemporary, important issue of sustainable energy and environmental protection, specifically on:

- Informing them on the effects of reckless use of energy on the environment.
- Awareness raising of students on the issue of energy saving.
- Informing them on ways to save energy.

The implementation of the program started after obtaining the approval of the Ministry at the beginning of April 2019 and is carried out by trained graduates, postgraduate and graduate students of the Department of Mechanical Engineering of the University of West Attica. The educational material was developed by PPC and the scientific supervision was undertaken by the Laboratory of Mild Forms of Energy and Environmental Protection of the University of West Attica.

The Program has a duration of one teaching hour. It is adapted and takes place per elementary school class, for example per age and cognitive level of students. It includes:

1. Screening of a short animated film prepared by the Sustainable Energy Initiatives of the European Commission's Directorate-General for Energy.
2. Discussion and comprehension exercises, based on the film.

Students are given a certificate of attendance of the educational program, as well as a souvenir board game related to energy saving.

The program, which is warmly received by the schools, is supported and promoted in the kindergartens and primary schools of the respective Municipalities, by the 3rd Directorate of Primary Education of Athens and is one of the largest student educational programs designed and implemented by an electricity provider in Europe.

#### Energy saving tips brochure

An informational brochure regarding energy conservation was sent to all Company's customers. The brochure was mailed together with the PPC bill in a specially designed envelope. The delivery of the brochure started at the end of October 2019. It took about two months to complete the delivery to all low and medium voltage customers. The total number of customers involved in the information campaign was around 6 million. The brochure provided information on household energy consumption and energy saving tips when using household appliances. It is estimated that by applying the tips contained in the brochure in the daily use and energy management of households and businesses that received it, it could lead to energy savings in end-use of up to 20 ktoe per year (approximately 230 GWh).

## 5.2. Combating climate change and reducing greenhouse gases and other air emissions (e.g. NO<sub>x</sub>, SO<sub>x</sub>, VOCs) GRI 103-2



PPC, recognizing the impact of climate change in all areas of economic activity as well as its own responsibility due to greenhouse gas emissions from its activities, invests over time in improving the energy efficiency of its thermal power plants, in improving the characteristics of energy for the generation of electricity and in the development of hydroelectric power plants and renewable energy projects. The result of these actions is the reduction over time of the average CO<sub>2</sub> emission factor of the PPC energy generation system.

According to the most recent national inventory of greenhouse gas emissions submitted by Greece to the secretariat of the United Nations Framework Convention on Climate Change, covering the period 1990-2018, greenhouse gas emissions from the use of fossil fuels in PPC's as well as in private thermal power plants for the generation of electricity and heat in 2018 was 33.28 million tons of carbon dioxide equivalent (CO<sub>2</sub>eq) and accounted for about 36.1% of total national emissions, which was 92.2 million tons of CO<sub>2</sub>eq.

Recognizing the environmental impact of its activities, PPC formulates and implements control and prevention programs based on the systematic monitoring of the interaction of the effects of its activities on the environment.



Aaos Springs Hydroelectric Power Plant



## Greenhouse gas emissions

Monitoring of greenhouse gas emissions from thermal power plants (which are the main source of PPC's emissions) is based on the European Commission guidelines for installations participating in the European Union Emissions Trading Scheme (EU ETS) and the monitoring plans developed by PPC are updated, when necessary, and approved by the Ministry of Environment and Energy (YPEN).

### Our performance GRI 103-3 GRI 305-1 GRI 305-4 GRI 305-5 GRI 305-6 GRI 305-7 EU 5

Greenhouse gas emissions	2017	2018	2019
<b>Operation of power plants</b>			
<b>Scope 1</b>			
<b>Per fuel (kt CO<sub>2</sub>eq)</b>	<b>31,794</b>	<b>23,828 (29,574)</b>	<b>17,579 (23,151)</b>
Lignite	24,734	17,694 (23,280)	11,214 (16,603)
Fuel oil	2,834	2,714	2,708
Diesel	1,078	846 (871)	793 (829)
Desulphurization	167	8.7 (143)	– (147)
Natural gas	2,927	2,512	2,810
Plants not included in EU ETS	54	54	55
Denitrification	–	–	1

1. Calculations account for CO<sub>2</sub>.

2. The emission consolidation approach is that of operational control.

3. **Scope 1** Direct emissions: At present the table above includes emissions from fuel consumption of thermal power plants (Scope 1 direct emissions as per the GHG Protocol terminology). PPC (see note 7) aims to further explore future publication of other Scope 1 emissions categories (i.e. emissions from fuel consumption of buildings and vehicles).

4. **Scope 2** Indirect emissions: Indirect emissions (Scope 2) from electricity consumption at PPC (includes only emissions derived from the self-consumption by thermal power plants) are included in the Company's direct emissions (Scope 1).

5. **Scope 3:** See note 7.

6. For reasons of comparability, the emissions shown in parentheses, include the emissions of the subsidiaries Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A.

7. PPC plans to further explore reporting emissions from other Scope 1, 2 and 3 emission categories, from 2020 onwards.

In 2019, CO<sub>2</sub> emissions from the operation of PPC power plants amounted to 17.6 Mt. Emissions from the facilities of PPC and its subsidiaries (Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A.) decreased by 22% compared to 2018 (from 29.6 Mt in 2018 to 23.2 Mt in 2019). The average CO<sub>2</sub> emission factor of PPC and subsidiaries (1.06 t CO<sub>2</sub>/MWh) decreased by 7% compared to 2018 levels (1.14 t CO<sub>2</sub>/MWh), while the average emission factor of all plants (thermal and hydroelectric) decreased by 5% (from 0.96 t CO<sub>2</sub>/MWh in 2018 to 0.92 t CO<sub>2</sub>/MWh in 2019). The corresponding values only for PPC's power plants are 0.95 t CO<sub>2</sub>/MWh (thermal plants) and 0.81 t CO<sub>2</sub>/MWh (all plants).

The emissions intensity (defined as the GHG emissions from the generation of electricity and the extraction of lignite to the revenues from the sales of electricity) of PPC for 2019 was estimated at 3.8 kg CO<sub>2</sub> eq/€.

The values of the average emission factor of the thermal power plants depend on the quality of the extracted lignite but also the participation of lignite and natural gas in the production mix of electricity, in the context of the operation of the electricity market. There was a drop in lignite production from 11,111 GWh in 2018 to 6,995 GWh in 2019 and a corresponding small increase in natural gas production from 6,362 GWh in 2018 to 7,120 GWh in 2019.

The value of the total average rate is greatly influenced by the share of hydroelectric production in the total electricity production. In 2019 the production of electricity from hydroelectric power plants decreased by 33% compared to 2018 (3,363 GWh), due to low hydraulicity of the year (reduced inputs) and forced reduction of hydroelectric production to maintain safety reserves.

Overall, PPC has achieved the reduction of the CO<sub>2</sub> emission factor of the total power generation system by approximately 29.2% compared to the reference year 1990 (1.3 t CO<sub>2</sub>/MWh).

### EU Emissions Trading System

The European Union Emissions Trading Scheme was established by Directive 2003/87/EC, aiming to reduce greenhouse gas emissions in the 28 Member States of the European Union by 20% in 2020 compared to 1990. It is one of the European Union key tools for reducing greenhouse gas emissions. The Emissions Trading System started in 2005 and since 2013 the third phase of its implementation is evolving (ETS 2013-2020).

In the year 2012, Regulation 601/2012 / EU for the monitoring and recording of greenhouse gases during the third period (2013-2020) was adopted, which shows significant differences and increased requirements compared to those realized in the previous period (2008-2012).

Plant inclusion to ETS criterion: Rated Thermal Input > 20 MWth

According to Directive 2003/87/EC which is in force, during the third period (2013-2020) of operation of the ETS all electricity generating companies are obliged to purchase all the rights required to cover their emissions from electricity generation, with the exception of the rights for part of the CO<sub>2</sub> emissions, which correspond to the district heating function.

The Environment Department is the authority that is responsible for the central Supervision, Verification and Reporting for CO<sub>2</sub> emissions, for all the PPC facilities that fall within the scope of Directive 2003/87/EC.

At the end of 2019, the in-scope facilities of PPC (including the facilities of the subsidiaries Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A.) for which the CO<sub>2</sub> emissions were verified were 30 (27 of PPC, 2 of Lignitiki Megalopolis S.A. and 1 of Lignitiki Melitis S.A.). The free CO<sub>2</sub> emission rights that had been allocated to PPC (for the operation of district heating) for 2019, were 42.93 thousand. According to current European and National legislation, during the 3rd phase of implementation of the EU-ETS (period 2013-2020), the Company is not entitled to free allocation of rights for the CO<sub>2</sub> emissions of its power plants that fall within the scope of Directive, with the exception of part of the emissions corresponding to supply of thermal power for district heating. On 31.03.2020, the verifications of the CO<sub>2</sub> emission reports of the year 2019 were completed by accredited control bodies, which were submitted on time to the Competent Authority in accordance with the current legislation. The total verified CO<sub>2</sub> emissions of the year 2019 amounted to 17.52 million tons (ETS).

Compliance with gas emissions is analyzed as follows:

	Company	
	2018	2019
Cover of emissions from purchased EUAS	301,368	411,869
Cover of prior year deficit	–	–
Managing expenses	37	16
<b>Total</b>	<b>301,405</b>	<b>411,885</b>

PPC handed over a total of 23.10 million rights as follows: 17.52 million rights for the compliance of its facilities, 4.16 million rights in Lignitiki Megalopolis S.A., as well as the 1.41 million rights in Lignitiki Melitis S.A., for the emissions of their units in 2019.

#### Air pollutant emissions

As a result of burning conventional fuels to generate electricity at thermal power plants the air pollutants released into the atmosphere contribute to air pollution and cross-border pollution. The most important air pollutants are sulphur oxides (SO<sub>x</sub>), nitrogen oxides (NO<sub>x</sub>) and airborne particles. The quality of the consumed lignite is a major defining factor in the emissions produced.

In 2019, the majority of the pollutant gas emissions (PPC and its subsidiaries) decreased compared to 2018, due to the decreased generation of the lignite power plants.

Pollutants <sup>1</sup>	Emissions 2017 (tons)	Emissions 2018 <sup>2</sup> (tons)	Emissions 2019 (tons)
Sulphur oxides (SO <sub>x</sub> )	38,500	29,200 (32,500)	26,200 (29,800)
Nitrogen oxides (NO <sub>x</sub> )	46,300	42,300 (45,000)	36,900 (39,300)
Particulate matter (PM)	3,820	2,810 (2,900)	1,630 (1,710)
Pb	2.13	2.24 (2.37)	1.35 (1.44)
Ni	9.18	7.85 (8.03)	5.20 (5.37)
Cu	3.89	3.75 (3.84)	2.31 (2.38)
Cr(tot)	5.35	5.81 (6.12)	2.58 (2.81)
Zn	7.38	6.75 (7.68)	3.91 (4.57)
Cd	0.40	0.263 (0.292)	0.160 (0.180)
Hg	0.69	0.515 (0.648)	0.283 (0.614)
As	1.49	1.17 (1.20)	0.617 (0.639)

1. The data in the table include data published by PPC in the European Register of Pollutants Release and Transfer (E-PRTR, regulation 166/2006/EC) and relate to the Interconnected system and the islands of Crete and Rhodes. Final historical data are presented for the years 2017, 2018 and 2019.

2. For comparability purposes, the figures in brackets include the emissions from the subsidiaries Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A.

#### Actions to tackle climate change

PPC's environmental policy includes actions to reduce carbon dioxide emissions in the process of generating electricity to tackle climate change, which is one of the United Nations 2030 Sustainable Development Goals.

To reduce CO<sub>2</sub> emissions from thermal power plants, and tackle climate change, PPC implemented actions and programs that include:

- Investments that include the replacement of old thermal power plants, with new plants of modern technology and high efficiency, as well as the improvement of the environmental behavior of the existing plants.
- Further development of hydroelectric projects and renewable energy projects.
- Further inclusion of natural gas in the energy mix.
- Promotion of energy saving actions and rational use of electricity.
- Participation in research programs for the application of efficient lignite technologies.

The result of these actions is the reduction over time of the average CO<sub>2</sub> emission factor of PPC's electricity generation system.



### Actions to tackle climate change in 2019

Investments continued for the replacement of obsolete plants with new, more environmentally friendly, state-of-the-art technology and higher efficiency plants. Further aiming to control and reduce emissions into the atmosphere, PPC implements a series of relevant measures and interventions to improve the environmental behavior of existing plants.

Specifically:

- Civil engineering projects continued, as well as industrialization of the mechanical and electrical equipment for the new thermal unit under construction in Ptolemaida (Unit V) with a combined capacity of 660 MW with pulverized lignite fuel and with the possibility of providing thermal power of 140 MWth for district heating. It is noted that for this plant (which will replace the withdrawn Ptolemaida Thermal Power Plant) there is provision for the installation of CO<sub>2</sub> capture and compression equipment, when the CO<sub>2</sub> capture technology is mature (Capture readiness).
- The operation of the new South Rhodes TPP continued for the 2nd year, which consists of 7 identical four-stroke diesel electric units with a total net power of 115.439 MW, with low sulfur fuel oil and natural gas combustion, at Piso Kampos and Plaka Steni, Rhodes.
- Megalopolis Thermal Power Plant Unit V operates with natural gas.
- The hybrid project of Ikaria, "Naeras", was inaugurated, with a total capacity of 6.85 MW. Naeras combines the energy utilization of two forms of renewable energy sources, wind and hydroelectric. The whole project has been connected to the electricity network of HEDNO and has been operating since the beginning of 2019. It is estimated that Naeras will produce clean energy of about 9.8 GWh/year. The expected underwater energy interconnection of Ikaria with Samos, will enable the greater utilization of the energy produced by Naeras. In addition, Naeras brings significant economic, environmental and social benefits to the island of Ikaria.
- The Transitional National Emission Reduction Plan (TNERP) for the period 2016-2020 (pursuant to Article 32 of Directive 2010/75/EU) requires the linear reduction (between 2016 and 2019) of the total annual emissions of the units included in it (for SO<sub>2</sub> and particles), enabling for gradual implementation of the necessary environmental investments in them, while for NOx emissions, compliance is required from 01.01.2016. With the Joint Ministerial Decision 34062/957/E103/2015, Agios Dimitrios TPP, Lignitiki Melitis, and Lignitiki Megalopolis are included in the National Plan.
- Units I-IV of the Kardia TPP and Units I-II of the Amyntaio TPP are included in article 29, paragraph 4 of the Joint Ministerial Decision 36060/1155/E103/2013 as it is amended and in force (derogation regime of limited duration, with no more than 32,000 operating hours per stack from 01.01.2016 to 31.12.2023). In 2019, the operation of the lignite units I and II of the Kardias TPP was terminated (300 MW each).
- In the context of the Transitional National Emission Reduction Plan, the Company defined its policy, delimiting the way of utilization of the lignite plants within the set time horizon, the required actions and environmental projects, as well as the schedule of their implementation, in combination with the planning of their long-term maintenance. The investments mainly concern NOx emission reduction projects (such as the replacement of existing burners with new low NOx emitting ones, the installation of additional and/or the modification of existing post-combustion air systems and generally any other

primary measures deemed necessary to achieve the set objectives) at the Lignite Units of Agios Dimitrios, as well as projects to reduce sulfur dioxide emissions at the Agios Dimitrios TPP.

For the environmental reformation of Unit V of Agios Dimitrios TPP it was decided:

- a. The construction of a liquid flue gas desulphurization project to reduce sulfur dioxide emissions (liquid desulphurization process of forced oxidation using limestone). The project in question was awarded to the bidding company J&P AVAX S.A. in June 2017 for a contract price of € 68 million). According to the contractual schedule, the project will be completed on 14.02.2021 (Commencement of Commercial Operation). The licensing process of the project has been completed. The civil engineering works are in progress (started May 2019). The equipment orders of the project are in progress.
- b. The boiler upgrade to reduce NOx emissions with primary measures. On 24.06.2014 the relevant contract was signed with the company SOLERGON S.A. for a contract price of € 2.94 million. The project has been completed and put into operation.

For the environmental reformation of Units I-IV of Agios Dimitrios TPP (NOx emissions) the following were decided:

- a. The upgrade of boilers of Units I and II of the plant to reduce NOx emissions with primary measures. On 23.11.2015 the relevant contract was signed with the company METKA S.A. (contract price of € 13.75 million). The implementation of the contract is in progress. According to the planning, the equipment installation works in Unit I started in October 2018 and in Unit II in May 2018. The works in both Units were completed in 2019 and the systems are in the phase of test operation.
- b. The upgrade of boilers of Units III and IV of the plant to reduce NOx emissions with primary measures. On 12.11.2015 the relevant contract was signed with the company ERGOTEM S.A. (contract price of € 14.82 million). The implementation of the contract is in progress. The installation works of the equipment have been completed and the project is in the phase of final acceptance.
- c. The interconnection of alternators of Units I-II with the existing installed energy recovery systems of Units III-IV of the TPP. On 29.05.2015, a contract was signed with the contractor of the project, ERGOTEM S.A., for a contract price of € 2.884 million. The project has been completed and is in operation.
- d. The implementation of water injection tests at the outlet of the feed mills of Units I-IV to reduce the combustion temperature and reduce NOx formation.

Given the new conditions, and especially the ratification of a new National Plan for Energy and Climate in December 2019 (Government Gazette 4893 B/31.12.2019) which leads to the immediate withdrawal of Units I-IV of Agios Dimitrios TPP by the end of 2022, PPC impaired part of the cost of the ongoing projects implemented in order to improve the environmental behavior of Units I, II, III and IV according to the requirements of Directive 2010/75/EU and compliance with the objectives of TNERP, as the estimated useful life of the above significant environmental upgrades of the units will not exceed a maximum of 3 years. It is noted that the implementation of the specific projects was decided in previous periods and with different assumptions about the estimated useful life of these units.

For the environmental reformation of Units I-IV of the Agios Dimitrios TPP, in terms of SO<sub>2</sub> emissions, it was decided:

- a. The inclusion of Units I - II in a regime of limited operation that will not exceed 1,500 hours per year as a rolling average of five years. As a result, the dry desulphurization projects that were under investigation in previous years are canceled.
- b. For Units III - IV, a dry desulphurization system was installed in order for the Units to comply with the requirements of Directive 2010/75. The system has been in trial operation since October 2020.

In 2019, the operation of the lignite Units I and II of the Kardias TPP, 300 MW each, was permanently stopped, while other lignite Units (Units I and II of the Amyntaio TPP and Units III and IV of the Kardias TPP) with a capacity of 1,200 MW, limited their operation exclusively for district heating needs and coverage of peak periods, until their final withdrawal in 2020 and 2021.

It is noted that:

- In 2016, the program of withdrawal of lignite plants with a capacity of 913 MW, natural gas plants with a capacity of 536.5 MW and oil plants with a capacity of 730 MW was completed. The selection of the plants to be withdrawn was made with criteria concerning both their technical and financial depreciation, as well as the impossibility (for technical and financial reasons) of their reformation to the new stricter environmental requirements, while commitments made at National level (to tackle climate change, air pollution, etc.) were also taken into account.
- Since October 2007, all oil stations using fuel oil are supplied with low sulphur fuel oil (1% by weight of sulphur).

In order to monitor the emissions to the atmosphere, PPC operates a network of 26 Atmospheric Quality and meteorological parameters Measurement Stations (AQMSs), in the wider areas of power plants and mines, which is further developed when the need arises. In this context, the competent bodies are systematically informed about the atmospheric emissions in the wider area of PPC's activity, by submitting annual and semi-annual Atmospheric Quality Reports, in application of the Environmental Conditions Approval Decisions, while immediate (within 24 hours) is the information in cases of exceeding the air emissions, failure of the anti-pollution equipment, failure of the analyzer for measuring environmental parameters, etc.

#### PPC atmospheric quality measurement stations in the wider areas of Power Plants and Mines

Location	Number of power plants	Measured atmospheric pollutants
North System <sup>1</sup>	7	SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>
Lavrio	1	SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>10</sub>
Aliveri <sup>4</sup>	1	SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>10</sub>
Komotini	1	NO <sub>x</sub>
Chania	3	NO <sub>x</sub>
Linoperamata	3	SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>10</sub>
Atherinolakkos	3	SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>
Rhodes <sup>2</sup>	3	SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>
Kos	1	SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>
Samos	1	SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>10</sub>
Chios	1	SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>
Lesvos	1	SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>10</sub> , PM <sub>2.5</sub>
<b>Total</b>	<b>26<sup>3</sup></b>	

1. The North System comprises of the PPC power plants in the Region of Western Macedonia.

2. The measurement station at Kattavia Rhodes which is part of the new Southern Rhodes Thermal Power Plant, was put into operation on 12.09.2018.

3. It is noted, that Lignitiki Megalopolis S.A. operates an additional three (3) stations that measure air quality and meteorological parameters, while Lignitiki Melitis S.A operates two (2) stations.

4. AQMS "Latta" operation (in the wider area of the Aliveri plant) was discontinued according to the Ministerial Letter DIPA/6308/27.03.2018.

### Atmospheric quality measurement stations of the company Ligniteki Megalopolis S.A. in the wider areas of Power Plants and Mines

Location	AQMAS Location	Total number of stations	Measured air pollutants
Megalopolis	Isari Elliniko Leontari	3	SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>10</sub>

### Atmospheric quality measurement stations of the company Ligniteki Melitis S.A. in the wider areas of Power Plants and Mines

Location	AQMAS Location	Total number of stations	Measured air pollutants
North System	Florina Melitis	2	SO <sub>2</sub> , NO <sub>x</sub> , PM <sub>10</sub> , PM <sub>2,5</sub>

In addition, measurements of (a) noise and vibration levels are carried out at 9 locations in the settlements of Agios Christoforos, Karyochori, Spilia, Pteleona, Agios Dimitrios, Akrini, Ryaki, Pontokomi and Proastio on a six month basis and (b) vibration levels in the wider areas of the mines, where explosions take place (western slopes of Mavropigi Mine, South Field Mine, Kardias Field Mine and Amyntaio Field Mine).

In 2019, as in previous years, the Environmental Issues Management Team operated, consisting of executives from the Lignite Generation Business Unit and the Thermal and Hydro Generation Business Unit. The team's objective is the continuous monitoring of the results of atmospheric quality measurements and the continuous elaboration of a specific strategy for dealing with and limiting as much as possible the exceedance of permissible limits.

### Ozone-depleting substances and fluorinated greenhouse gases

The Real Estate and Facilities Management Department typically uses recovered refrigerants. Where this is not possible, refrigerants are obtained from the market. The monitoring is done through the issuance of vouchers to the relevant workshops. In 2019, PPC's installed cooling capacity for its central air-conditioners (5.49 MW) and the local split-type air-conditioners (3.63 MW) was in total 2,593.23RT (9.12 MW). The fluorinated gases used in air-conditioning systems are: R407C, R410A, R32 and R134A. In 2019, the quantities filled were 164 kg in total and correspond to 302 t CO<sub>2</sub>eq emissions. In line with legislative requirements, no existing facilities were topped up with R22, which is listed as an ozone-depleting substance.

## 5.3. Increasing the efficiency of natural resources usage

### Raw materials

As a large electricity company, PPC uses and consumes large quantities of raw materials and other materials, both to generate electricity and to cover other needs. The main fossil fuel PPC uses to generate electricity is lignite. In effect this is the only fossil fuel Greece extracts. Natural gas, though, plays a very important role in ensuring the Company's energy balance. The island power generation systems are based on the consumption of oil products (LSFO and diesel) to generate electricity.

Raw materials	2017	2018	2019	
Lignite-solid fossil fuels (tons)	35,368,005	26,961,900 (36,625,870)	17,307,839 (26,584,053)	
LSFO (tons)	900,586	862,437	860,364	
Diesel (kilolitres)	435,859	342,100 (354,470)	326,408 (340,132)	
Natural gas (kNm <sup>3</sup> )	1,398,707	1,199,614	1,328,971	
Desulphurization limestone (tons)	401,953	2,300 (326,352)	0 (340,875 on a wet basis or 338,817 on a dry basis)	
Urea	(tons) (kilolitres)	— —	— —	880 dry 1,964 solution
Lubricants and mineral oils without PCBs	(tons)	6,145	5,482 (5,529)	6,168
	(kilolitres)	1,100	0,975 (1,194)	0,764

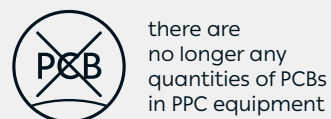
For comparability purposes, the figures that are in brackets include the consumption of the subsidiaries Ligniteki Megalopolis S.A. and Ligniteki Melitis S.A. for 2018 and 2019. Moreover, urea consumption refers to Southern Rhodes TPP.



Area of construction of an innovative recreation park within the restored areas of LCDM for the COFORMIT research project

In 2019, 20.1 tons of combustion improvers and quantities of lubricants and PCB-free oil (323 containers) were consumed by PPC, aside from the products listed in the table.

It should be noted that there are no longer any quantities of PCBs in PPC equipment, as the programme to completely remove them and decontaminate all equipment containing or contaminated by PCBs has been completed in line with the relevant provisions of law. Checks for PCBs that may potentially be present are carried out on all equipment decommissioned from the network, even when it is certain that there is no contamination whatsoever.



### Water

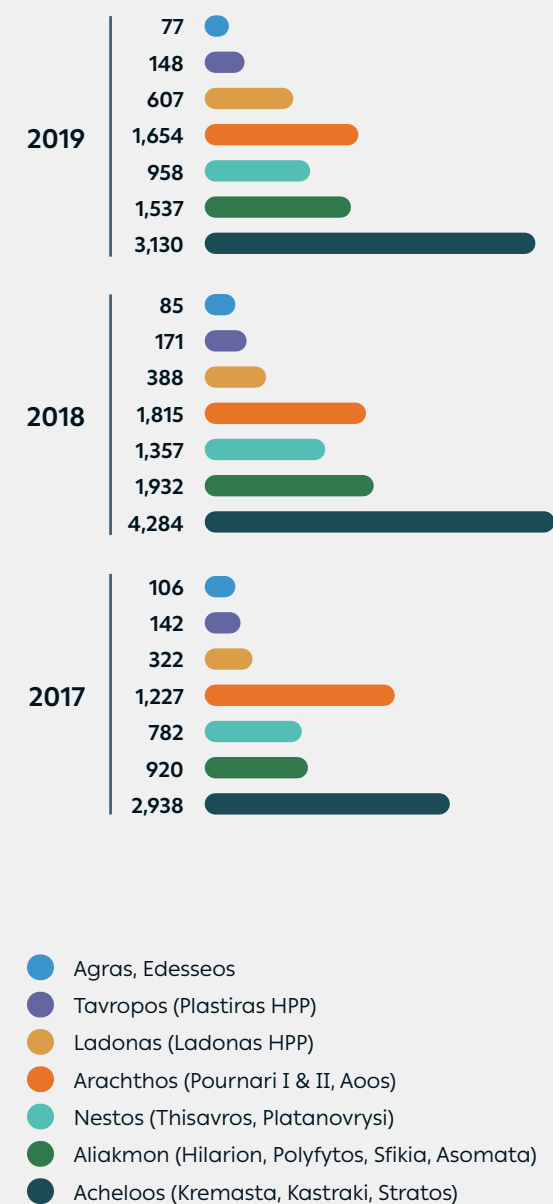
Developing Greece's hydropotential for electricity generation is one of PPC's most important activities, which contributes to reducing Greece's energy dependence and also reduces greenhouse and other gas emissions. To this end, dams are being built and reservoirs are being created. At the same time, PPC recognizes the importance of water resources for sustainable development and, for this very reason is implementing a series of measures and preventative actions to protect and ensure integrated water management, in a responsible way, with a view to maximizing the overall social and environmental benefits.

PPC also places particular emphasis on systematically monitoring the country's hydropotential by maintaining a model monitoring network, which includes a highly reliable rain and meteorological network, with 170 metering stations primarily in mountainous areas, and a hydrometric network comprised of 39 stations that measure flow levels in rivers.

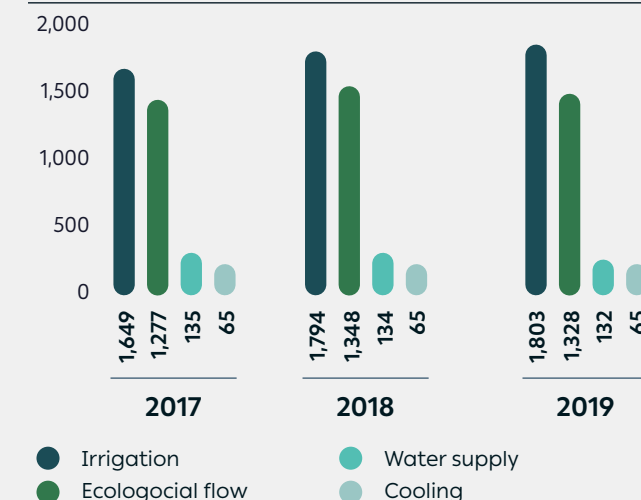
In addition to using data from the hydro-meteorological network for PPC's own purposes, and to ensure safe planning of public and private works, the data also provides Greece's public authorities and other parties concerned with valuable information to help them effectively manage and protect the aqueous environment. Hydro-meteorological data continued to be provided free of charge to support education and research activities in the field of water resources.

The water sources affected by the pumping carried out by PPC (for thermal and hydro power plants) are presented in the following table, together with the protection status of each area (due to the high value of their biodiversity features). Information about the European Ecological Network Natura 2000 is available on the Ministry of the Environment and Energy website <http://www.ypeka.gr/Default.aspx?tabid=432&language=el-GR>.

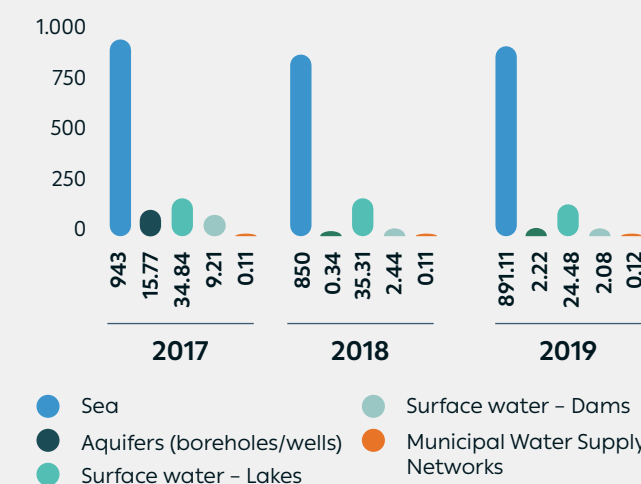
Water inflows per reservoir (millions of m<sup>3</sup>)



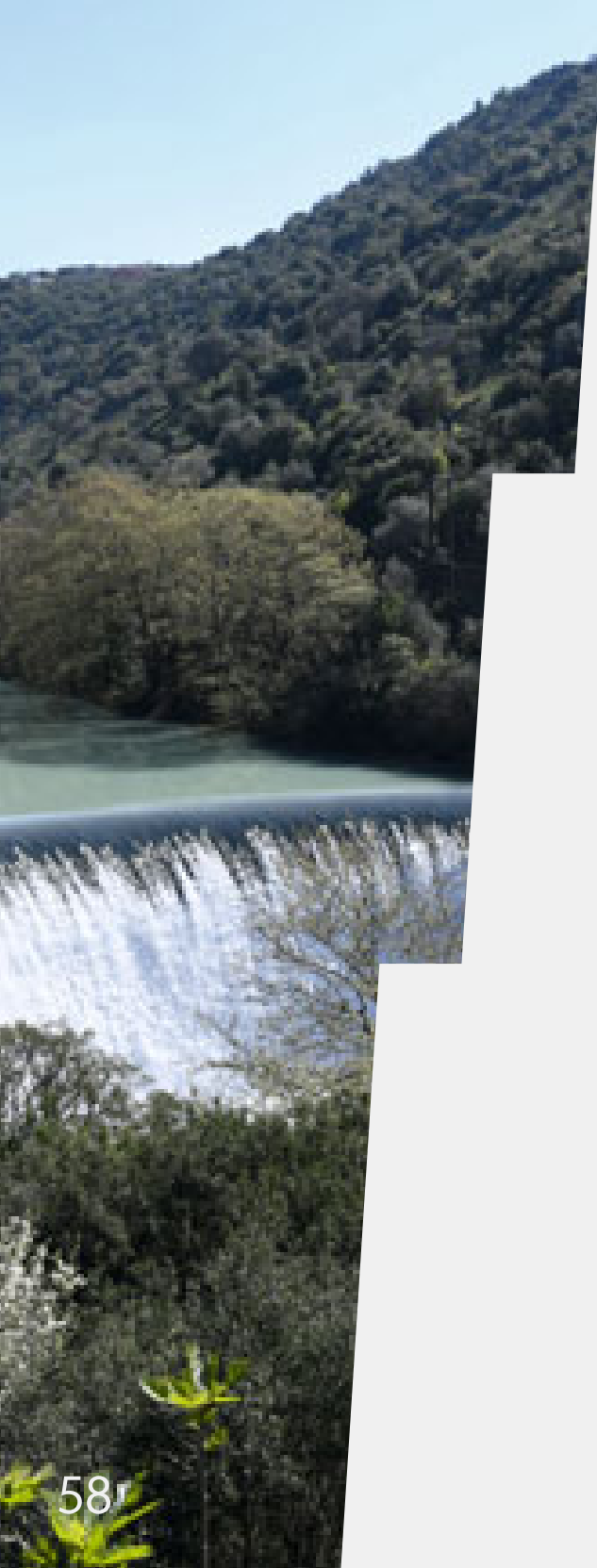
Use of water per usage category (millions m<sup>3</sup>)



Quantity of water drawn per abstraction source (millions m<sup>3</sup>)







Name of water source	Type	Protection regime
Almyros, Chania*	Lake (outlet)	NATURA 2000
Acheloos (Kremasta, Kastraki, Stratos)	Reservoirs	None
Aliakmon (Hilarion, Polyfyto, Sfikia)	Reservoirs	None
Aliakmon (Asomata)	Reservoir	NATURA 2000
Agras	Reservoir	NATURA 2000
Nestos (Thisavros, Platanovrysi)	Reservoirs	NATURA 2000
Arachthos (Pournari I and II)	Reservoirs	None
Aoos	Reservoir	NATURA 2000
Ladonas (Ladonas HPP)	Reservoir	None
Tavropos (Plastiras HPP)	Reservoir	NATURA 2000

\* The Almyros source at Chania is within PPC Renewables' jurisdiction. According to the contract between PPC and PPC renewables, responsibility for operating the small hydroelectric power plant and monitoring the quality of water in the reservoir lies with the Chania TPP, in line with the Joint Ministerial Decision on the environmental terms and conditions applicable to the plant.

### Water management at hydroelectric power plants

2019 was a year with low hydraulicity (reduced inflows) and there was forced reduction of hydroelectric production to maintain safety reserves. Hydroelectric projects ensure flood protection and meet both the water supply and irrigation needs of adjacent areas. In addition, dams ensure a minimum continuous inflow to riverbeds (ecological flow), even in times of severe drought, thereby contributing significantly to protecting and managing Greece's water resources. Plant operations are scheduled to ensure that ecological flow requirements as well as water supply and irrigation needs are met. This is done in cooperation with the relevant administrative region (for annual and daily scheduling) taking into account the system's energy requirements.

### Water management at thermal power plants

Water is withdrawn in areas surrounding thermal power plants from various sources and for various uses, such as Cooling Towers of the power plants. To ensure rational water management, PPC recycles and reuses significant quantities of water, thereby reducing the total volume required to meet its needs. The relevant amounts of water recycled and reused at its power plants are 11.85% for the lignite power plants and 54.73% for oil power plants. It should be noted that the estimated recycling rates above do not include the quantity of sea water used for cooling.

### Water management at lignite mines

In 2019, as well as in previous years, in the areas of mining activity of PPC, the water withdrawn (surface and groundwater) for the protection of the mines, which is not used to meet the mining needs, was made available to neighboring municipalities mainly to meet irrigation needs. The excess quantities are redistributed to the surface sources (Soulou stream, irrigation canals and Heimaditida-Petra stream in the West Macedonia Lignite Center) strengthening the water balance of the respective areas, improving the quality of the surface ecosystem and the biodiversity (Soulou stream). These conclusions are drawn from existing studies.

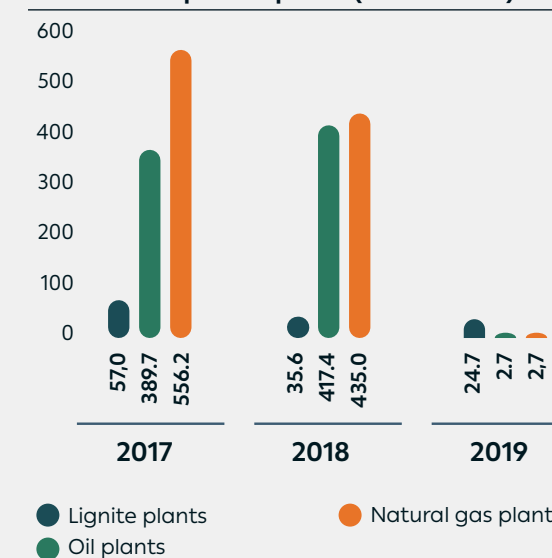
### Existing studies

The Special Hydrogeological Study of Ptolemaida Mines prepared by the Department of Hydrogeological Studies of Operational Support Department of Lignite Generation in February 2019, covers the total withdraw per source for the mines of South Field Mine, Main Field Mine and Kardia Ptolemaida Field for 2018. For all mines, relevant annual drainage and environmental impact assessment reports for the aquatic environment are being issued.

Usage category <sup>1</sup>	Use of water (millions m <sup>3</sup> ) 2018 <sup>1</sup>	Use of water (millions m <sup>3</sup> ) 2019 <sup>1</sup>
Damping down (roads, ash, etc.)	2.91	2.22
Water supply to mines (for personnel and buildings)	0.54	0.14
Irrigation	5.00	5.00
Natural bodies of water <sup>2</sup>	25.38	22.61
Use of thermal power plants	0.17	0.28
<b>Total</b>	<b>34.00</b>	<b>30.25</b>

1. The quantity of water used by the mines of Lignitiki Megalopolis S.A. is not included.  
2. Surface water and groundwater usage are included.

### Quantity of water drawn per category of thermal power plant (millions m<sup>3</sup>)



Includes the seawater quantity for cooling (887,883,435 m<sup>3</sup>)

## 5.4. Minimizing waste and increasing the implementation of circular economy practices

Waste management aims at a more efficient use of resources for the benefit of the Company, the environment and public health. The circular economy model is gradually applied, following the practices of prevention, reuse, recycling, recovery and disposal of only non-recoverable waste.

### Solid Waste and Liquid Waste

PPC, with reference to the waste management of thermal power plants that are under its responsibility, cooperates with alternative management systems, such as KEPED S.A., SYDESYS S.A., AFIS S.A., APPLIANCES RECYCLING S.A., ECOELASTIKA S.A., as well as with licensed transferring, collecting, managing and reuse companies, in Greece and abroad, always in accordance with the relevant legislation. Cross-border transfers, when these are implemented, are always made under the responsibility of the licensed Company which is competent for waste collection, transport, management and utilization.

The management of waste belonging to special waste streams, which are covered by Collective Systems for Alternative Management (SSED), is explained below:

- The used mineral oils are carefully collected in large plastic tanks in the workshops spaces or in the collection areas and then, are being given to the company CYTOP S.A.
- Empty barrels of oil and grease are thoroughly cleaned and placed in the oil lubricant waste collection areas. Several of them are used for packaging hazardous waste and the rest are given to the company EL.ET.AN.
- Damaged lead accumulators are collected in plastic bins at workshops and are given to licensed companies.
- Waste of electrical and electronic equipment are being collected in bins and given to a licensed collector partner of FOTOKYKLOSIS S.A.
- Tires at the end of their life cycle are being collected and given to ECOELASTIKA S.A.
- The batteries are being collected in special bins and given to a licensed collector associate of AFIS S.A.
- Paper and plastic are placed in recycling bins and received by the Municipality of Eordea.



For the management of hazardous waste that does not belong to special waste streams, the West Macedonia Lignite Center collects them, places them in appropriate containers and temporarily stores them in sheds.

During 2019, the following quantities of hazardous waste were transported across the border.

Waste description	EWC <sup>1</sup>	Quantity 2019 (tons)
Insulation materials containing asbestos	17 06 01	3.720
Dredging spoil containing hazardous substances	17 06 05	0.400

1. Codification according to the European Waste Catalogue (EWC).
2. Data shown above derive from the individual data for each thermal power plant that have been submitted to the Electronic Waste Register by the TPP Operation Department based on primary data collected by each thermal power plant for 2019.
3. The quantities of waste removed are measured by weighing.

PPC, for 2019, holds 63 facilities which fall under the Electronic Waste Register's implementation plan. The register enables the environmentally licensed facilities to fulfil their obligation of submitting an annual waste report.

Waste description	Quantity (tons)	Management method
<b>Materials &amp; Purchasing Department</b>		
Mixed metals (iron, steel, steel ropes, scrap metal, etc.)	6,028.92	Sale through highest bidder tenders
Different types of cables (copper and aluminum alloys)	320.760	
Decommissioned machinery and vehicles	10 units	
Various spare power transformers	13 units	
Various spare parts	6 categories	
Various spare mechanical items	2.432	
Waste oils/lubricants	1,568.927	
<b>Thermal Power Plants Operation Department</b>		
Spent activated carbon (except 06 07 02)	11.11	Recovery/disposal
Oil fly ash and boiler dust	161.72	Recovery
Sludges from on-site effluent treatment containing hazardous substances	263.78	Recovery
Waste-blasting material containing hazardous substances	71.07	Recovery
Aqueous washing liquids	8.43	Recovery

Testing, Research and Standards Centre

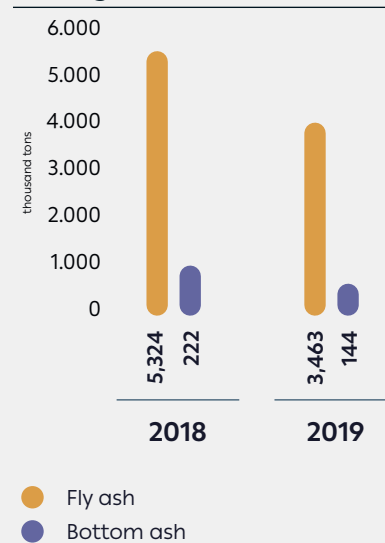


Waste description	Quantity (tons)	Management method
Mineral-based non-chlorinated engine, gear and lubricating oils	652.496	Recovery
Synthetic engine, gearbox and lubricating oils	59.176	Recovery
Bilge oils from other navigation	46.91	Recovery
Oil from oil / water separators	80.02	Recovery
Mixtures of wastes from grit chambers and oil/water separators	112.78	Recovery
Fuel oil and diesel	1,679.72	Recovery
Discarded equipment containing chlorofluorocarbons, HCFC, HFC	0.18	Recovery
Packaging containing residues of or contaminated by hazardous substances	17.912	Recovery
Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	105.013	Recovery
Oil filters	0.06	Recovery
Organic wastes containing hazardous substances	0.016	Recovery/disposal
Gases in pressure containers (including halons) containing hazardous substances	0.12	Recovery
Laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals	0.03	Disposal
Discarded inorganic chemicals consisting of or containing hazardous substances	28.74	Recovery/disposal
Discarded organic chemicals consisting of or containing hazardous substances	1.88	Recovery
Lead batteries	9.814	Recovery
Waste containing oil	291.63	Recovery
Soil and stones containing hazardous substances	19.96	Disposal
Insulation materials containing asbestos	3.72	Disposal
Construction materials containing asbestos	0.4	Disposal
Fluorescent tubes and other mercury-containing waste	3.754	Recovery
Batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these batteries	0.536	Recovery
Discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components	5.895	Recovery

Waste description	Quantity (tons)	Management method
<b>West Macedonia Lignite Centre Operational Support Department</b>		
Waste oils/lubricants	307.520	Recovery
Sludges from oil/water separators	1.420	Disposal
Oily water from oil/water separators	1.448	Disposal
Ferrous metal	13.540	Recovery
Mixed metals	2,887.34	Recovery
Mixed materials	43.560	Recovery
Used copper cables (copper content 30-35%) and other cables	120.050	Recovery
Oil filters	1.027	Disposal
Used accumulators containing lead	36.022	Recovery
Contaminated absorbent materials	0.156	Disposal
Wastes from electrical and electronic equipment	188.15	Recovery
Lights, fluorescent bulbs and batteries	0.659	Recovery
Mixed municipal waste	280.030	Recovery
Absorbents, filter materials, wiping cloths and protective clothing other than those mentioned in 15 02 02	3.450	Disposal
End-of-life tyres	1,092.55	Recovery
Packaging containing residues of or contaminated by hazardous substances	1.448	Disposal
End-of-life vehicles, containing neither liquids nor other hazardous components	512.530	Recovery
Plastic	0.060	Disposal
Aluminium	3.330	Recovery
Empty barrels containing lubricants	46.390	Recovery

The figures have been calculated based on those cited in packing lists, delivery notes and invoices from collectors/haulers. The terms 'recovery' and 'disposal' are used in accordance with the provisions of Annexes I and II of Section B of L. 4042/2012.

**Produced ash from lignite burning in Thermolectric Plants during 2019**



### Use of by-products

The main PPC by-product is fly and bottom ash, while gypsum is produced in large quantities by the desulphurization units of thermal power plants. PPC has already registered the quantities of ash it commercially trades, in line with the European REACH regulation (registration number: 01-2119491179-27-0086). In 2011, the Company also began to register gypsum so that this by-product could also be utilized commercially. Due to the lack of commercial interest which would make trading in gypsum financially advantageous, the process of registering under the REACH regulation has been temporarily suspended. In 2019 there have been no developments.

In 2019, the burning of lignite at the Company's thermal power plants produced nearly 3,463 thousand tons of fly ash and 144 thousand tons of bottom ash.

- 2.79 million tons of ash were deposited along with inert materials in the mines of the West Macedonia Lignite Centre.
- 0.59 million tons of ash were deposited along with inert materials in the mine of Amyntaio.
- 85.7 thousand tons of fly ash were sold in 2019.

In 2016, in order to limit environmental impacts from ash transportation to disposal sites, PPC launched a conveyor belt construction project to carry the ash generated, from the Agios Dimitrios TPP to the network of conveyor belts at the Southern Field Mine. There, the ash is mixed with mine dredging spoils and inert materials. Together they are co-deposited in the mine's deposition sites. The project has been fully operational since the 2nd quarter of 2017. The direct environmental benefits, that resulted from the operation of the new conveyor belt are:

- The minimization of the percentage of ash microparticles, that are suspended above the conveyor belt.
- The elimination of any lateral leakages during transportation.
- The restriction of landings points, where the transported materials are dropped from a high altitude, and the simultaneous reduction of the dispersed dust, through the installed spray systems.
- The elimination of the particle resuspension phenomena due to contact between the moving conveyor belt and the rotating rollers with the material accumulated beneath the conveyor belt.

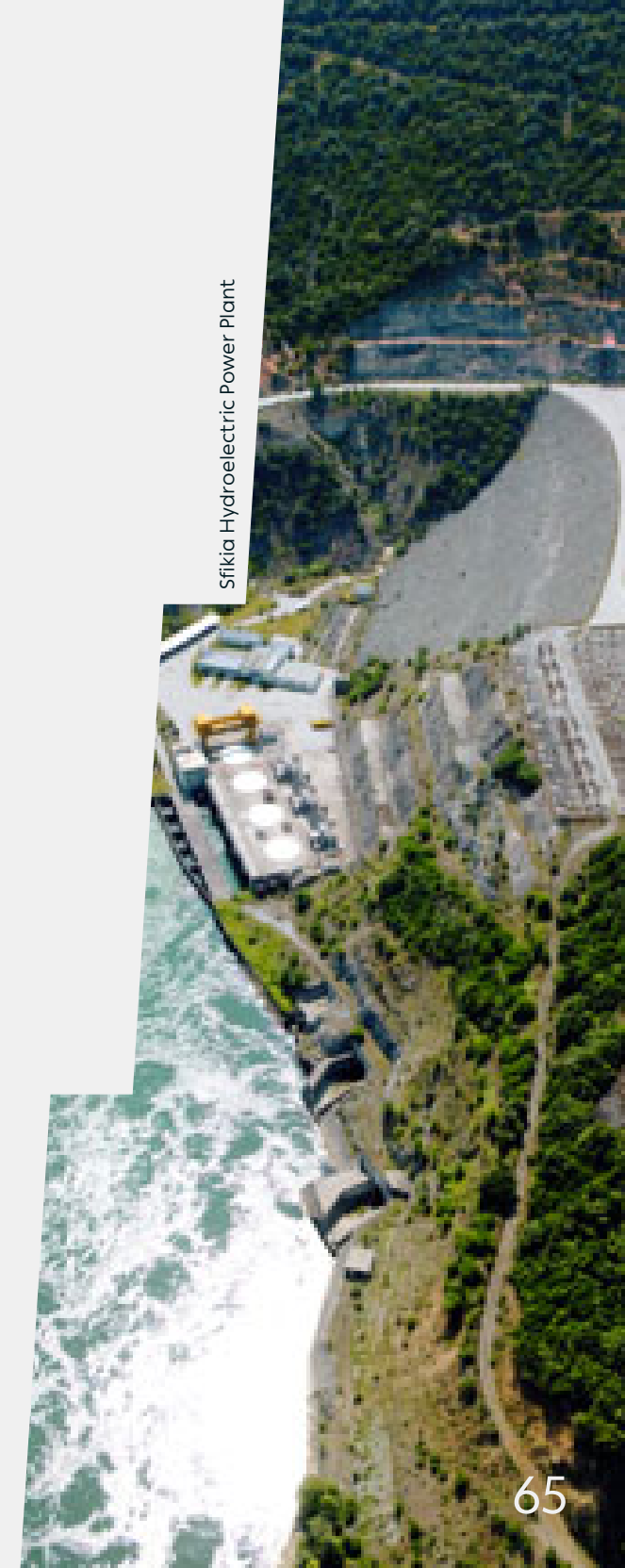
### Liquid waste

All power plants operated by the Company have state-of-the-art systems for treating liquid waste, in accordance with the provisions of relevant decisions approving the environmental terms and conditions of each power plant, and in accordance with the best available techniques Manual for large combustion power plants. Treated wastewater is either disposed of into natural bodies of surface water or ground water depending on the location of the facility and the authorizations in place. The Company systematically monitors the quantities and characteristics of the waste generated and briefs the competent authorities on a regular basis as it is obliged to.

	2017	2018	2019
<b>Sea water for cooling (millions of m<sup>3</sup>)</b>			
Lignite power plants	—	—	—
Oil power plants	387.08	414.90	374.41
Natural gas power plants	552.61	431.85	513.46
<b>Treated liquid waste (millions of m<sup>3</sup>)</b>			
Lignite power plants	21.76	12.81 (19.50)	10.22 (15.99)
Oil power plants	0.15	0.15	0.22
Natural gas power plants	1.58	1.33	1.81

1. The quantities of waste are measured by and the quantities of cooling water are estimated based on the capacity of the pumps under conditions of maximum dispatch, and length of operation.
2. For comparability purposes, the figures that are in brackets include quantities generated from the subsidiaries Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A.

Sfikia Hydroelectric Power Plant





## 5.5. Protecting ecosystems and preserving biodiversity

Incorporated in the Company's environmental strategy is the protection of biodiversity in the areas where it develops its activities, thus contributing to the efforts of the EU to halt biodiversity loss and restore ecosystems.

Protecting biodiversity is an integral part of the PPC environmental policy. In line with the applicable legislation and Decisions approving the environmental terms and conditions for running its power plants (and the technical studies that accompany the applications submitted to the competent authorities), the Company takes steps to manage the natural environment in those areas where it extracts lignite and generates electricity. These measures seek to preserve or rehabilitate natural habitats for endemic flora and wildlife. As far as technically feasible, it also employs pollution abatement technologies and best practices to limit the pollution load generated for all possible media and to minimize the impact of PPC operations on the environment and the ecosystem.

In the mining areas, PPC has been implementing extensive soil remediation programs for a number of decades, and takes care of the optimization of the way of rehabilitation of the affected areas and the selection of the most suitable end use, taking into account a number of parameters, such as:

- the local terrain and climate conditions,
- ecosystem variables after the end of the mining activity,
- human geography and the socio-economic structure, and
- prevailing land uses and the necessity of these uses.

Soil rehabilitation projects include tree planting schemes, landscaping the ground, planting trial crops, and cleaning and tidying up the mines. The land rehabilitated with tree plantations produces particularly beautiful ecosystems which are home to a variety of wildlife.



Artificial Lake at Polytyto HPP, Kozani

### Ptolemaida mines

Remediated land at the Ptolemaida mines cover approximately 31,405 acres, including 4,310 acres covered with new soil, 9,015 acres of farmland, 75 acres of lakes, and 18,005 acres planted with trees.

In 2019, the following soil remediation projects were carried out:

### Tree planting

During the 2019 spring planting season, 3,000 Arizona cypresses, 3,000 Mediterranean cypresses, 4,000 Leyland cypresses and 10,000 Pyracantha were planted in the Ptolemaida mines, in an area of 245 acres around the building facilities of the Ptolemaida V TPP. In addition, in a 20 acre area, 1,000 Acacia saplings were planted in the Northern Sector. In an area of about 65 acres, 60 of which are also located in the area of the Ptolemaida V TPP, experimental cultivation took place within the European Life Green Link project. The project, which takes place in Italy, Spain and Greece, is implemented by the National Center for Research and Technological Development/Institute of Chemical Processes and Energy Resources in collaboration with PPC and aims to remediate deserted areas of the Mediterranean, by applying innovative planting methods, aiming to increase their durability.

### Experimental farming

In the Inner Depot of the Main Field Mine, in a 6.5 acre area, in collaboration with the University of Western Macedonia, experimental cultivation of barley was carried out, by applying different types of fertilization or adding soil conditioners or a combination of both, so as to achieve soil improvement. In 30 acres, adjacent to the PPC orchard, conventional barley was grown and in 7 acres lavender, honeysuckle, thyme and mountain tea were grown. The production of barley, 5,800 kilos, was offered to the children accommodation structure of the Ark of the World in Pogoniani. Essential oil was also extracted from lavender.

### Soil tests

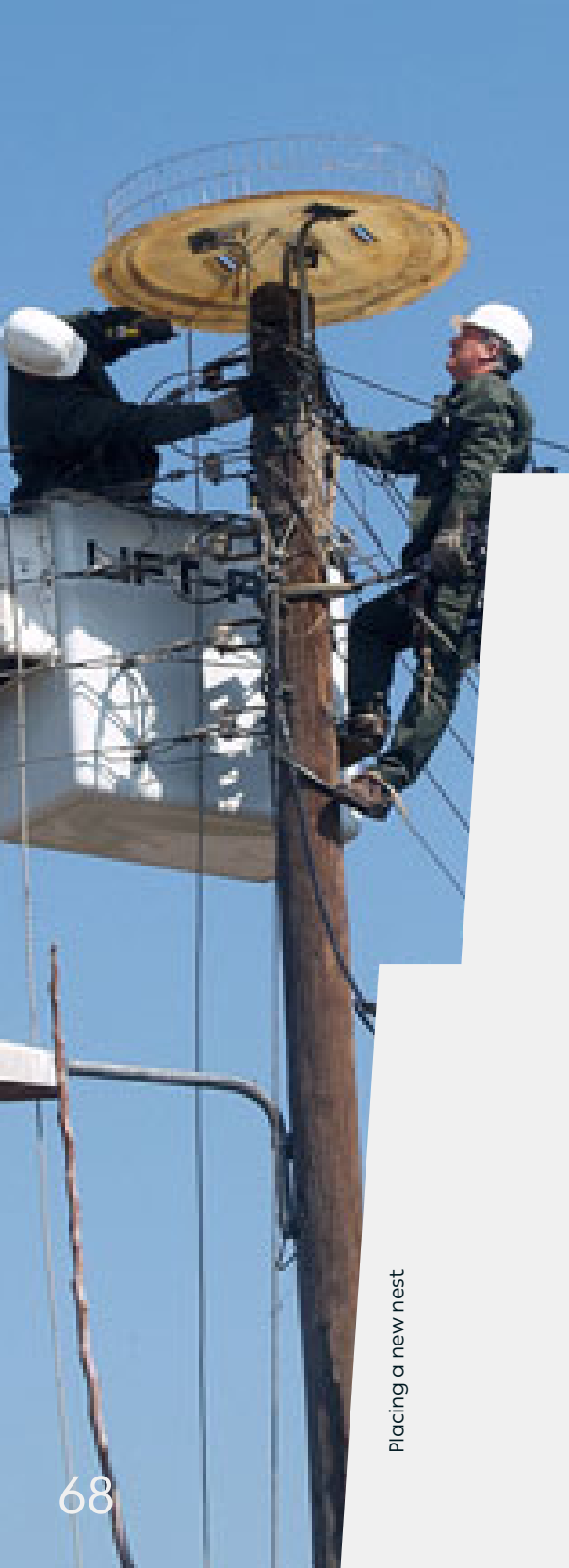
PPC assigned to the Laboratory of Applied Soil Science, of the Department of Agriculture of the Aristotle University of Thessaloniki, to conduct laboratory analyzes to 141 soil samples, in order to determine 33 soil parameters. The goal was to check the fertility and quality composition of soils before they are given for cultivation, tree planting, etc.

### Management of restored areas

During 2019 (cultivation period 2018-19) 3,045 acres of restored areas of the Mine's deposits were leased to farmers in the area.

### Regeneration and reuse of former mining areas

As part of the Sustainable Development Strategy, the West Macedonia Lignite Center announced, in 2015, an Architectural Competition of Ideas with awards for the first three best and most complete ideas for the renovation and reuse of approximately 1,800 acres in the northwestern boundaries of the Main Field, between the settlements of Karyochori and Agios Christoforos. The first prize was awarded to the



Placing a new nest

architectural office topio7, which, in 2018, was commissioned to prepare a preliminary design for the implementation of the proposal, which was completed in 2019. In the respective location, in an area of 50 acres between the settlements of Karyochori and Agios Christoforos, a recreation park was developed which was associated to the project COFORMIT. During the year, 5,500 saplings of various species were planted in the aforementioned area, including poplars, alders, maples, silver bark, wicker, etc.

#### Apiculture

The West Macedonia Lignite Center, active in the field of beekeeping, assigned to the University of Western Macedonia a study on the beekeeping value of the acacia forests of West Macedonia Lignite Center, their utilization possibilities, as well as the organized installation of beekeepers in pre-selected locations, inside the forest. The results of the study were presented at a conference on "Promotion and systematic utilization of the beekeeping potential of acacia plantations of West Macedonia Lignite Center", in March 2019 and to which there was a great response.

Based on the study, 166 beekeeping sites were created in the deposits of South Field Mine, Main Field Mine and Amyntaio. Following a public invitation, addressed to beekeepers across the country, more than 10,000 hives were installed in 97 locations covering a total area of 5,390 m<sup>2</sup>.

#### Amyntaio Mine Management of remediated areas

In 2019, the total remediated areas amounted to 14,145 acres, of which 7,880 acres are tree planted areas by PPC, 1,085 acres are agriculture land and 5,180 acres are paved. In 2019, 84,000 acacia seedlings were planted on 945 acres in the area where the 2017 landslide took place. In various locations of both the internal and external deposition sites, as well as of the landslide area, 2,585 acres were paved. In 2019, 1,050 acres of arable land were leased.

#### Soil sampling

In collaboration with the Faculty of Agriculture and the Laboratory of Applied Soil Science of the Aristotle University of Thessaloniki, soil analysis was carried out on 24 samples from eight different locations of the forest area of the external deposit of the Amyntaio mine, in order to assess the physicochemical condition of the restored habitat. In 2019, the following actions took place:

- As part of the Environmental Education program, on the occasion of the World Environment Day, trees were planted by students of primary schools of Ptolemaida in the external deposit of the mine. Saplings and other relevant resources were sourced by the Company. 45 students and their teachers participated in the tree planting and 120 saplings were planted.

- Operational processes of the turbine pump and installation of an irrigation network at the Center of Physical Medicine and Rehabilitation (KEFIAP) of Amyntaio were carried out.

The special uses of the restoration works include, among others, a forest park in the inner deposit of the Main Mine Field, with many species of trees that thrive in the area, as well as world championship standards track for moto cross races, where local and national championships are organized. In the area of the forest park there is an exhibition center which receives many visitors every year, from Greece and abroad.

The first integrated waste management system in Greece is in the remediated deposit of the Kardia mining site. The treatment facilities of the mixed Municipal Solid Waste (MSW) of the Region of Western Macedonia offer multiple benefits for the environment and the local community. The facilities are located in the conceded by PPC to DIADYMA S.A. area, spanning across 1,107 acres, where a sanitary landfill has been operating since 2005.

#### Ecosystem equilibrium studies and other protection/rehabilitation measures

In collaboration with institutions such as the Hellenic Centre for Marine Research, the National Agricultural Research Foundation, as well as university departments, PPC conducts studies on ecosystem equilibrium so as to develop specific strategies, operations, actions or plans relating to biodiversity rehabilitation/regeneration/management in accordance with the provisions of national and european law.

Natural areas	Protection/remediation actions 2019
Lakes along the course of the Rivers: Acheloos, Aliakmon, Nestos, Arachthos, Megdova, Ladonas and Agras	<ul style="list-style-type: none"> <li>• Dams and the surface of reservoirs in the immediate area around dams are regularly swept to remove wood and waste (ongoing action).</li> <li>• Boats and personnel are provided to take samples and measure qualitative and biological parameters of water of all lakes. The action is performed by the Greek Biotope-Wetland Centre.</li> </ul>
River Nestos and the Thisavros and Platanovrysi Reservoirs	<ul style="list-style-type: none"> <li>• PPC/Nestos Complex is also cooperating with the Interbalkan Environment Centre to implement actions to measure qualitative and biological parameters on river and lake waters in the Nestos system (ongoing action).</li> </ul>
Complexes-HPP	<ul style="list-style-type: none"> <li>• The operation of the power plants is scheduled in order to ensure the minimum ecological flow to the riverbed, downstream of PPC's works.</li> <li>• Constant operation of the automated telemetric network, that collects physico-chemical and meteorological data. Said data is stored at the local hydroelectric power plant and the Hydroelectric Generation Department's main server.</li> </ul>
Wider area around PPC projects on the Nestos River	<ul style="list-style-type: none"> <li>• Meteorological data is being collected following the installation of 2 meteorological stations at locations proposed by the study to identify potential changes in microclimates in the wider area of PPC projects on the Nestos River (ongoing action).</li> </ul>



Low-voltage network,  
stork nest, Prespes

Natural areas	Protection/remediation actions 2019
Aoos Springs HPP	<ul style="list-style-type: none"> <li>Materials were cleared from the water abstraction pump room. Partnership was developed between the Municipality of Metsovo, the Epirus Region and the Northern Pindos National Park Management Agency to combat foreign species in the reservoir at the Aoos Springs hydroelectric power plant (ongoing action).</li> </ul>
Hilarion HPP	<ul style="list-style-type: none"> <li>Over the years, there has been a range of environmental restoration and redevelopment studies, such as architectural landscape and forestry development studies, special technical implementation studies for extraction pits, deposition sites and construction facilities that have been compiled and approved for Hilarion TPP. The study, which is still in progress and is expected to be completed in 2020, aims at fulfilling the local community's request, in order for all the proposed actions to be incorporated into one project, causing the least possible disturbance to the environment.</li> </ul>
Skopos - Papadia Dam	<ul style="list-style-type: none"> <li>Commencement of implementation (September 2019) of the water supply project of the Meliti city section aqueduct which is essentially completed, a project that is a compensatory project of the Skopos-Papadia dam. In the context of the construction of this project, the works described in the already approved forestry studies for the restoration of the forest vegetation and the improvement of the aesthetics of the landscape from the interventions for the construction of the dam will gradually begin as from 2021.</li> </ul>
Metsovitiko HPP	<ul style="list-style-type: none"> <li>The elaboration of a Technical Environmental Study of Implementation is still in progress, through which the impact of the Metsovitiko HPP on the ecosystem of the area is examined, as well as the application of an appropriate device in the dam, in order to ensure free communication of fish fauna. In addition, as part of the study, a manual will be prepared for the monitoring of fish fauna in the reservoir and in the part of the river downstream of the dam.</li> </ul>

### NATURA protected areas

The areas where PPC engages in mining operations are not located in NATURA 2000 network areas or other protected areas. The company's hydroelectric facilities located within protected areas (based on Ministry NATURA maps) cover an area of 78.29 km<sup>2</sup>.

Name of water source located within a NATURA 2000 area	Area covered by PPC's hydroelectric facilities within protected area <sup>1</sup> (km <sup>2</sup> )
Almyros, Chania <sup>2</sup>	0.08
Aliakmon (Asomata)	2.98
Agras	9.41
Nestos (Thisavros)	27.25
Nestos (Platanovrysi)	2.63
Aoos	11.63
Tavropos (Plastiras HPP)	23.56
Papadia dam	0.75
<b>Total</b>	<b>78.29</b>

1. In 2018, a reassessment of the area of the PPC protected areas was performed, subject to possible fluctuations in real estate register (declarations to Greek Land Register).

2. The Almyros water source at Chania is within PPC Renewables' jurisdiction. According to the contract between PPC and PPC Renewables, responsibility for operating the small hydroelectric power plant and monitoring the quality of water in the reservoir lies with the Chania TPP, in line with the Joint Ministerial Decision on the environmental terms and conditions applicable to the plant.





Academy of Basketball (Giannakis Academy) in Ptolemaida

## 6. Social

### 6.1. Generating economic value / Economic performance GRI 102-7 | GRI 103-2



In 2019, the turnover amounted to € 4,736.3 million from € 4,593.4 million in 2018, increased by € 142.9 million (representing a 3.1% increase). PPC's EBITDA amounted to € 642 million in 2019, compared to € 219.3 million in 2018 (representing a 192.7% increase). The Company's net losses arose to € 1,963.1 million compared to €786.0 million in losses in 2018 (representing a 149.8% increase). The unamortized balance of subsidies on 31.12.2019 was € 156.8 million.

The total PPC investments stood at € 608.8 million and were allocated as follows: € 85.9 million to the Mines Business Unit, € 372.7 million to the Generation Business Unit, € 1.9 million to the Supply Business Unit, € 1.5 million to the Support Operations Division, € 228.6 thousand to Corporate Functions Divisions and € 145.8 million to the Distribution Network.





Our performance GRI 103-3 GRI 201-1

(in € '000)	2017	2018 <sup>1</sup>	2019 <sup>2</sup>
Turnover	4,847,036	4,593,522	4,736,317
Financial Income	110,223	111,478	72,459
<b>Direct economic value generated</b>	<b>4,957,259</b>	<b>4,705,000</b>	<b>4,808,776</b>
Operating costs	4,132,866	4,674,844	6,356,780
Salaries and employees' benefits including employer's social security contributions <sup>3</sup>	559,396	607,955 <sup>4</sup>	292,145 <sup>4</sup>
Payments to fund providers	200,450	183,539	168,712
Payments to the state (taxes)	52,924	38,350	24,981
Social contribution (donations and sponsorships <sup>5</sup> , support of local communities and institutions/ organizations, etc.)	1,446	1,822	2,532
<b>Economic value distributed</b>	<b>4,947,082</b>	<b>5,506,510</b>	<b>6,845,150</b>
<b>Economic value retained<sup>6</sup></b>	<b>10,177</b>	<b>-801,150</b>	<b>-2,036,374</b>

1. Financial performance of the parent company with intermittent activities (Lignitiki Melitis S.A. and Lignitiki Megalopolis S.A.).
2. The figures do not include the companies Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A.
3. The salary of staff that is integrated in the tangible assets is not included.
4. Compared to 2018, there is a significant decrease, due to the change of the electricity supply tariff for employees and retirees, amounting to € 148,058 thousand.
5. The amount of donations/ sponsorships concerns amounts that have been accounted for from January 1 to December 31, 2019.
6. Economic value retained is negative for the years 2018 and 2019, due to the negative financial results.

All of PPC's published financial data are available in the 2019 Annual Financial Report.

## 6.2. Creating and developing employment

GRI 103-2  
GRI 102-41



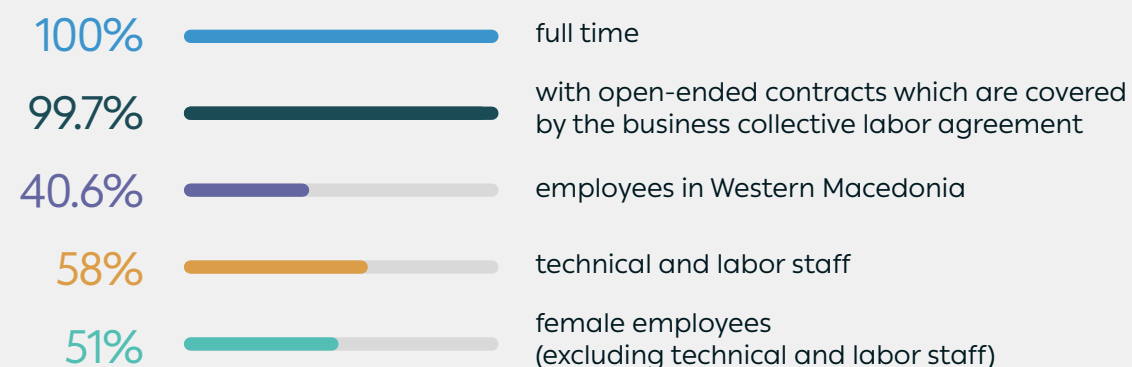
PPC recognizes that its human capital is the most valuable asset for the Company, to the extent that employees bring results and build its core competencies and competitive advantages.

PPC implements responsible management practices of its human resources and ensures the formation of a modern working environment of equal opportunities. It is committed to ensuring the health and safety of its employees, by implementing appropriate Occupational Health and Safety Management Systems and by implementing relevant training programs.

PPC's Staff Regulation regulates, inter alia, the rights and obligations of employees, the terms of employment contracts, the relationships that are formed during the execution of work and those of the exercise of disciplinary authority.



**8,107 employees**  
(permanent staff)



The Company's recruitment policy provides for objective scoring criteria, a minimum recruitment age of 18 years, priority to residents who suffer the impacts of the Company's activities in the recruitment of full-time and temporary staff, recruitment of relatives of deceased employees in work accidents, coverage of a percentage of the vacancies advertised by large families, people with disabilities and relatives of people with disabilities. During the three years 2017-2019, the number of hired relatives who died in a work accident amounted to 5 people.

On 31.12.2019 the number of employees who have been hired as people with disabilities amounted to 201 people, those with many children to 241 people and relatives with disabilities to 95 people. Respectively, in harmonization with L. 4643/2019, the Company established a procedure for hiring executives at the level of Assistant Directors or Branch Managers and above.

On 31.12.2019 the permanent staff of PPC amounted to 8,107 employees. 29.5% of them work in Attica, given that the largest percentage is employed in outlying regions, mainly in mining and production activities (mines and power plants). For PPC, special regulations on "local employment" apply according to which the permanent residents of the local/municipal communities, the municipal units and the Municipalities where the power plants and the mines of the Company are located, come first in the classification of the candidates to be hired. The above "local employment" rule does not apply to the Company's executives. At the same time, in 2019, some PPC employees were seconded to public sector services.

The Company's human resources include PPC employees to be made available to PPC Renewables, but not those seconded to insurance funds. The large reduction of staff from 10,672 in 2017 to 9,031 in 2018 is mainly due to the spin-off and transfer of 1,319 employees in Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A.

It is noted that for the most effective management of the employees' files, the Company started the digitization of their files since 2018. In 2018, the files of the employees of Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A. were digitized, while the process will be continued, with the aim to be completed in 2021.

PPC employees are employed full time. From a total of 8,107 full time employees, 8,088 are employed on permanent contracts and are covered by the Collective Labor Agreement signed in May 2018 with a duration of three years and 19 are employed on fixed-term contracts.

#### Geographical distribution of employees by gender (permanent staff, indefinite & fixed-term, full time) GRI 102-8

Region	Number of employees (31.12.2017)			Number of employees (31.12.2018)			Number of employees (31.12.2019)		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Eastern Macedonia and Thrace	113	43	156	114	44	158	111	44	155
Attica	1,337	1,191	2,528	1,325	1,202	2,527	1,222	1,197	2,419*
North Aegean	166	16	182	163	17	180	148	16	164
Western Greece	153	77	230	145	76	221	121	49	170
Western Macedonia	4,034	420	4,454	3,536	386	3,922	2,929	365	3,294
Epirus	119	32	151	112	30	142	93	25	118
Thessaly	81	34	115	80	34	114	65	33	98
Ionian islands	5	0	5	5	0	5	7	14	21
Central Macedonia	141	71	212	140	72	212	133	76	209
Crete	445	89	534	439	93	532	407	89	496
South Aegean	491	43	534	497	44	541	480	45	525
Peloponnese	1,196	151	1,347	189	73	262	171	73	244
Mainland Greece (Sterea Ellada) and Evia	174	50	224	165	50	215	153	41	194
<b>Total</b>	<b>8,455</b>	<b>2,217</b>	<b>10,672</b>	<b>6,910</b>	<b>2,121</b>	<b>9,031</b>	<b>6,040</b>	<b>2,067</b>	<b>8,107</b>

\* Includes the 19 employees with fixed-term contracts corresponding to 15 men and 4 women.

**Allocation of employees by category, gender and age (permanent staff, indefinite & fixed-term, full time)**

Employee categories	Number of employees 31.12.2017						Total
	Men			Women			
	<30 y. old	31 - 50 y. old	>50 y. old	<30 y. old	31 - 50 y. old	>50 y. old	
Executives	0	4	100	0	2	22	128
Admin/Financial employees	4	262	443	6	830	619	2,164
Technical-Technological employees	5	514	674	1	144	80	1,418
Technical support employees	111	2,983	2,913	8	177	70	6,262
Workers	2	129	267	1	90	56	545
Expert staff	0	11	27	0	69	42	149
Consultants	0	0	6	0	0	0	6
<b>Total</b>	<b>122</b>	<b>3,903</b>	<b>4,430</b>	<b>16</b>	<b>1,312</b>	<b>889</b>	<b>10,672</b>

Employee categories	Number of employees 31.12.2018						Total
	Men			Women			
	<30 y. old	31 - 50 y. old	>50 y. old	<30 y. old	31 - 50 y. old	>50 y. old	
Executives	0	2	94	0	2	22	120
Admin/Financial employees	4	210	446	6	704	702	2,072
Technical-Technological employees	4	422	619	1	123	86	1,255
Technical support employees	92	2,144	2,492	8	150	67	4,953
Workers	2	88	246	0	80	57	473
Expert staff	0	10	29	2	66	45	152
Consultants	0	2	4	0	0	0	6
<b>Total</b>	<b>102</b>	<b>2,878</b>	<b>3,930</b>	<b>17</b>	<b>1,125</b>	<b>979</b>	<b>9,031</b>

Employee categories	Number of employees 31.12.2019						Total
	Men			Women			
	<30 y. old	31 - 50 y. old	>50 y. old	<30 y. old	31 - 50 y. old	>50 y. old	
Executives	0	5	96	0	2	28	131
Admin/Financial employees	2	173	437	5	594	779	1,990
Technical-Technological employees	2	373	546	1	105	91	1,118
Technical support employees	68	1,882	2,126	5	144	72	4,297
Workers	0	65	230	0	74	56	425
Expert staff	0	8	25	1	59	50	143
Consultants	0	1	1	0	1	0	3
<b>Total</b>	<b>72</b>	<b>2,507</b>	<b>3,461</b>	<b>12</b>	<b>979</b>	<b>1,076</b>	<b>8,107</b>

For 2019, men constitute almost 74.5% of the Company's employees. The large participation of men is due to the nature of the work. 58% of the employees are technical and labor personnel, where 93% are men. In all other categories of employees, women make up 51% of the Company's human resources.

**Employee evaluation and benefits**

The implementation of employee evaluation systems has a positive effect on the organization of the Company, rewarding the good professional performance of employees and encouraging the effort to improve performance. PPC implements, from the first years of its operation, an employee evaluation system.

The annual evaluation system applied by the company to reward high-performing employees includes the use of behavioral description scales (Bars), weigh of criteria, linking the evaluated behaviors with the Company's strategy and communicating the evaluation to the employees.

Under the reward policy, a cash bonus was awarded to 20% of the staff, to the highest-rated employees in each Department based on last year's evaluation, paid each month as a personal allowance and offset against any raise due to promotion to the next salary grade. According to Company data, in the year 2019 the number of employees who were entitled to such reward, amounted to 920 employees.

In addition to the above, the Company provides additional benefits to employees, such as a group health/life contract, a subsidy to cover costs for nurseries and a subsidy for further training of employees (e.g. obtaining a Master's degree).

**Trade unions**

PPC supports freedom of association for its employees and gives trade union representatives time off to perform their trade union duties. The PPC trade unions represent employees from different areas of specialization and regions. The General Federation of Employees at PPC- Electricity Sector (GENOP/ PPC-CCDs), which includes 24 unions with 6,965 registered PPC employees in 2019, the Electricity Industry Workers' Federation that consists of 4 unions and has 215 registered employees and 2 more independent unions with which 29 employees are registered, all operating within the Company.

The fact that there is an employment & relationships with trade unions section within the Human Resources and Organization Division, responsible for handling trade union-related issues, demonstrates the Management's participative attitude towards employees.

Where major organizational changes are about to be made, the most representative trade union (GENOP/PPC) is notified and given a specific deadline within which to inform the other trade unions reporting to it, so that they can make proposals or submit views. Moreover, employees and trade unions are promptly briefed by the competent Human Resources unit.

Given that electricity is a necessity good, PPC ensures that energy continues to be supplied even during strikes by using backup staff.

## Our performance GRI 103-3

### Distribution of employees eligible to retire within the next five years per category

EU 15

Employee categories	Estimated number of employees eligible to retire within the next five years	Estimated % of employees eligible to retire within the next five years
Executives	57	43.5%
Admin/Financial employees	347	17.4%
Technical-Technological employees	304	27.2%
Technical support employees	1,861	43.3%
Workers	108	25.4%
Expert staff	36	25.2%
Consultants	0	0.0%
<b>Total</b>	<b>2,713</b>	<b>33.5%</b>

The largest percentage of employees (56%) are over 50 years old. It is estimated that 33.5% have the opportunity to retire within the next five years, while any forecast for the next decade is considered risky, given the general liquidity and uncertainty regarding the future ownership status and structure of the Company.

In 2018 it was given by a decision of the Board of PPC the possibility of voluntary departure from the Company of employees who have established the right to a main pension and have a specific age on December 31 of each year, which in 2019 was invoked by 134 employees and left the Company on 31.01.2020. This regulation is permanently valid and will be applied in the coming years, as long as it is not amended.

PPC is subject to laws and regulations that apply to companies in the Greek public sector and affect specific procedures, such as the hiring of new employees. Management has recognized the large average age of human resources and the limitation for new hires as factors with potential negative effects on the conduct of the Company's business.

In 2019, PPC recruited 20 new employees. At the same time, to cover specific business needs, 1,108 seasonal full-time employees (1,015 with eight-month contracts, 57 with two-month contracts and 36 with project contracts) were hired in 2019.

## New employee hires and turnover by age group and gender GRI 401-1

		2019								
		<30 y. old			31 - 50 y. old			>51 y. old		
		Men	Women	Total	Men	Women	Total	Men	Women	Total
Eastern Macedonia and Thrace	Number of new employee hires	0	0	0	0	0	0	0	0	0
	Number of employee turnover	0	0	0	0	0	0	9	1	10
	Total	0	0	0	69	29	98	42	15	57
	% of new employee hires	–	–	–	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Attica	Number of new employee hires	0	0	0	5	3	8	3	1	4
	Number of employee turnover	0	1	1	13	8	21	158	31	189
	Total	1	5	6	407	513	920	814	679	1,493
	% of new employee hires	0.0%	0.0%	0.0%	1.2%	0.6%	0.9%	0.4%	0.1%	0.3%
North Aegean	Number of new employee hires	0	0	0	0	0	0	0	0	0
	Number of employee turnover	0	0	0	0	1	1	21	0	21
	Total	9	1	10	74	6	80	65	9	74
	% of new employee hires	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Western Greece	Number of new employee hires	0	0	0	0	0	0	0	0	0
	Number of employee turnover	0	0	0	1	0	1	17	1	18
	Total	0	0	0	55	26	81	66	23	89
	% of new employee hires	–	–	–	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Western Macedonia	Number of new employee hires	0	0	0	2	0	2	0	0	0
	Number of employee turnover	0	0	0	7	2	9	622	15	637
	Total	18	3	21	1,235	215	1,450	1,676	147	1,823
	% of new employee hires	0.0%	0.0%	0.0%	0.2%	0.0%	0.1%	0.0%	0.0%	0.0%
Epirus	Number of new employee hires	0	0	0	0	0	0	0	0	0
	Number of employee turnover	0	0	0	1	0	1	17	1	18
	Total	0	0	0	20	6	26	73	19	92
	% of new employee hires	–	–	–	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%



	2019								
	<30 y. old			31 - 50 y. old			>51 y. old		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Thessaly	Number of new employee hires	0	0	0	0	0	0	0	0
	Number of employee turnover	0	0	0	0	0	20	2	22
	Total	0	0	0	19	17	36	46	62
	% of new employee hires	–	–	–	0.0%	0.0%	0.0%	0.0%	0.0%
	% of employee turnover	–	–	–	0.0%	0.0%	0.0%	43.5%	12.5%
Ionian Islands	Number of new employee hires	0	0	0	0	0	0	0	0
	Number of employee turnover	0	0	0	0	0	0	0	0
	Total	0	0	0	4	4	8	3	10
	% of new employee hires	–	–	–	0.0%	0.0%	0.0%	0.0%	0.0%
	% of employee turnover	–	–	–	0.0%	0.0%	0.0%	0.0%	0.0%
Central Macedonia	Number of new employee hires	0	0	0	0	0	0	0	0
	Number of employee turnover	0	0	0	0	1	1	26	5
	Total	2	1	3	48	39	87	83	119
	% of new employee hires	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	% of employee turnover	0.0%	0.0%	0.0%	0.0%	2.6%	1.1%	31.3%	13.9%
Crete	Number of new employee hires	0	0	0	1	0	1	0	0
	Number of employee turnover	1	0	1	0	0	0	41	5
	Total	18	2	20	227	48	275	162	39
	% of new employee hires	0.0%	0.0%	0.0%	0.4%	0.0%	0.4%	0.0%	0.0%
	% of employee turnover	5.6%	0.0%	5.0%	0.0%	0.0%	0.0%	25.3%	12.8%
South Aegean	Number of new employee hires	3	0	3	2	0	2	0	0
	Number of employee turnover	1	0	1	2	1	3	30	2
	Total	22	0	22	260	26	286	198	19
	% of new employee hires	13.6%	–	13.6%	0.8%	0.0%	0.7%	0.0%	0.0%
	% of employee turnover	4.5%	–	4.5%	0.8%	3.8%	1.0%	15.2%	10.5%
Peloponnesse	Number of new employee hires	0	0	0	0	0	0	0	0
	Number of employee turnover	0	0	0	1	0	1	15	2
	Total	2	0	2	49	32	81	120	41
	% of new employee hires	0.0%	–	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	% of employee turnover	0.0%	–	0.0%	2.0%	0.0%	1.2%	12.5%	4.9%

	2019								
	<30 y. old			31 - 50 y. old			>51 y. old		
	Men	Women	Total	Men	Women	Total	Men	Women	Total
Mainland Greece (Sterea Ellada) and Evia	Number of new employee hires	0	0	0	0	0	0	0	0
	Number of employee turnover	0	0	0	0	1	1	10	3
	Total	0	0	0	40	18	58	113	23
	% of new employee hires	–	–	–	0.0%	0.0%	0.0%	0.0%	0.0%
	% of employee turnover	–	–	–	0.0%	5.6%	1.7%	8.8%	13.0%

#### Average length of service of employees who left in 2019

Gender	Average years of service with PPC	Age	Average years of service with PPC
Men	29.8	<30 y. old	1.3
Women	26.3	31 - 50 y. old	14.9
		>51 y. old	30.1

#### Parental leave

PPC offers paid parental leave for parents-employees. Employees of both genders, either as biological, adoptive or foster parents, as well as surrogate parents are entitled to paid parental leave, in accordance with the Company's existing arrangements, regardless of the type of the other parent's employment activity and even if the other parent does not work. Cumulative paid leave (calculated as the total of the entitled reduced daily working hours) can be granted to parent-employees, instead of the reduced daily working hours, as follows:

- 10 months, for children up until the age of 5.
- 14 months, for twins, triplets, etc. up until the age of 5.
- 17 months, for parents with 4 children or more, up until the youngest child attends the first grade of elementary school.

An employee through an application may choose a cumulative paid leave, instead of the reduced daily working hours, and receive it either in portions or one-off. The paid leave is granted taking into account the Company's work needs. In any case, the entitled annual paid leave of the current year must be used up. The Company's temporary personnel, who serve a probation service, in order to be integrated into the permanent personnel, is only granted reduced daily working hours for child care. In 2019, 197 men and 76 women applied for and were granted parental leave. During the year, 67 men and 23 women returned to work after their leave ended. The Company has never so far terminated the employment contract of employees who return to work after cumulative maternity leave. Furthermore, in 2019, 4 men and 2 women left service before the completion of 12 months of returning from parental leave.

### Employee evaluation and benefits GRI 401-2

PPC, recognizing its human resources as its most valuable asset and seeking its maximum satisfaction and commitment to the Company and its goals, in addition to the basic salary of the employee, has established a series of benefits offered to full-time employees, which do not apply to seasonal workers.

The following are indicative:

- Reduced electricity tariffs.
- Granting of low-interest loans for the coverage of medical needs, funding for purchasing or repair of main residence, studying expenses for families' children who study outside their home-city, funding for car purchasing or for the coverage of needs stemming from notable social events (wedding, death etc.).
- Financial support to employees (facing serious health problems).
- Special leave for employees, in addition to entitled annual leave (study leave, family leave, extra 5-day leave for employees working on alternating shifts at power plants and mines, leave for customer service staff at the stores run by the Supply Business Unit).
- Training (seminars, foreign language courses, post-high school training, postgraduate courses, etc.).
- Free participation of employee's children in company-owned nurseries, coverage of part of the cost of private nurseries, coverage of the cost of private summer camps, up to the amount set by the competent Ministry.
- Mobile phones for staff, with free calls to other company staff.
- Shuttle buses for employees when their place of work is located at a considerable distance from urban centres or towns.
- Residences for executives and staff transferred to problematic areas (such as inaccessible areas) for work.
- Food vouchers worth up to € 4 for each day worked.
- Award of commendations to children of employees and retirees of the company who excelled in secondary and higher education. In 2019 ceremonies took place in Athens, Kozani and Megalopoli for awarding commendations to children of the company's employees and retirees, who excelled in their studies during the school year 2018-2019. 451 commendations in total were awarded.
- Career guidance services are offered to the children of the company's employees and retirees. In 2019, the Training Department provided free counseling to 160 children of PPC employees and retirees and 134 high-school students of Municipality of Eordea and Kozani. The sort of counseling offered by the Department has been welcome all over the country by both parents and children.
- Additional group health and life insurance program for its employees and their family (spouse, children), in collaboration with the European Reliance General Insurance Co. S.A.

### Post-retirement benefits

PPC also provides the Group's retirees with electricity at a reduced tariff. The commitment to provide a reduced rate to retirees is recognized as a liability and is calculated as the present value of future retirement benefits that are deemed accrued until the end of the year based on the retirement benefits of employees accumulated during their service period. These are calculated based on an actuarial model, on the basis of financial and actuarial assumptions.

## 6.3. Providing employee training and development



51,677 training hours

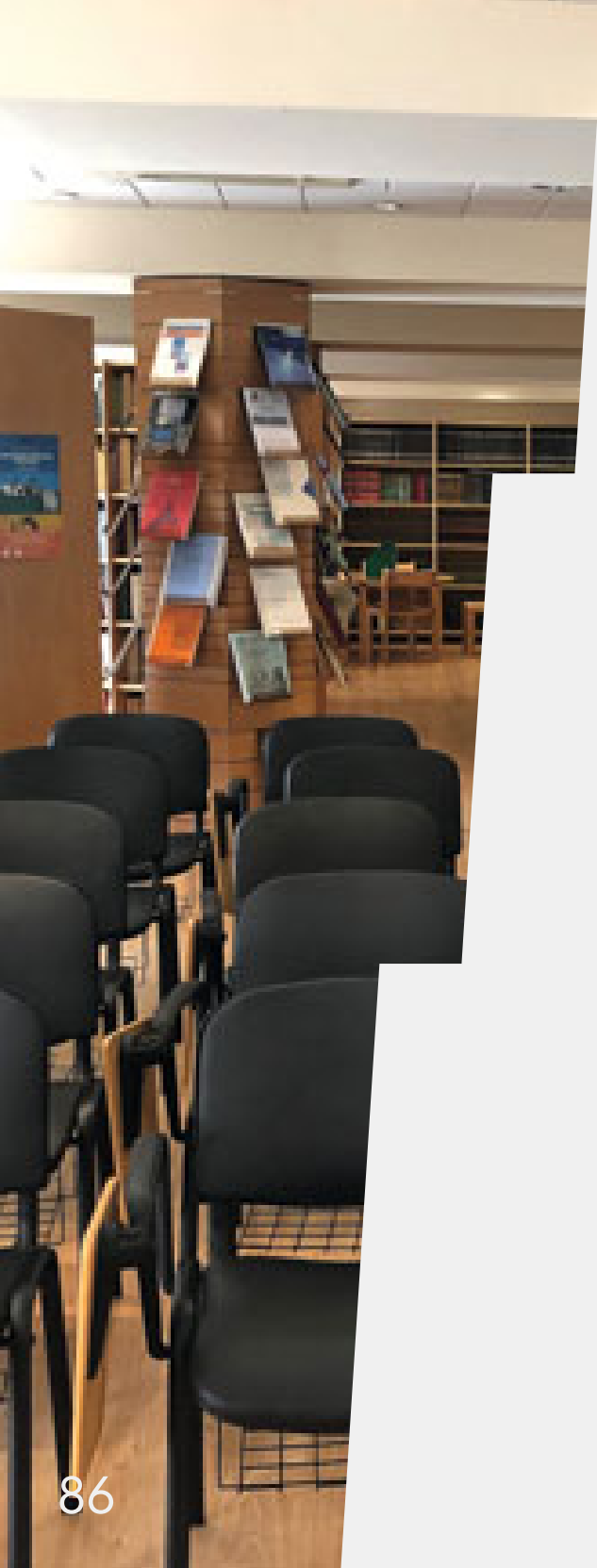
4,148 participations in training courses

3,141 men

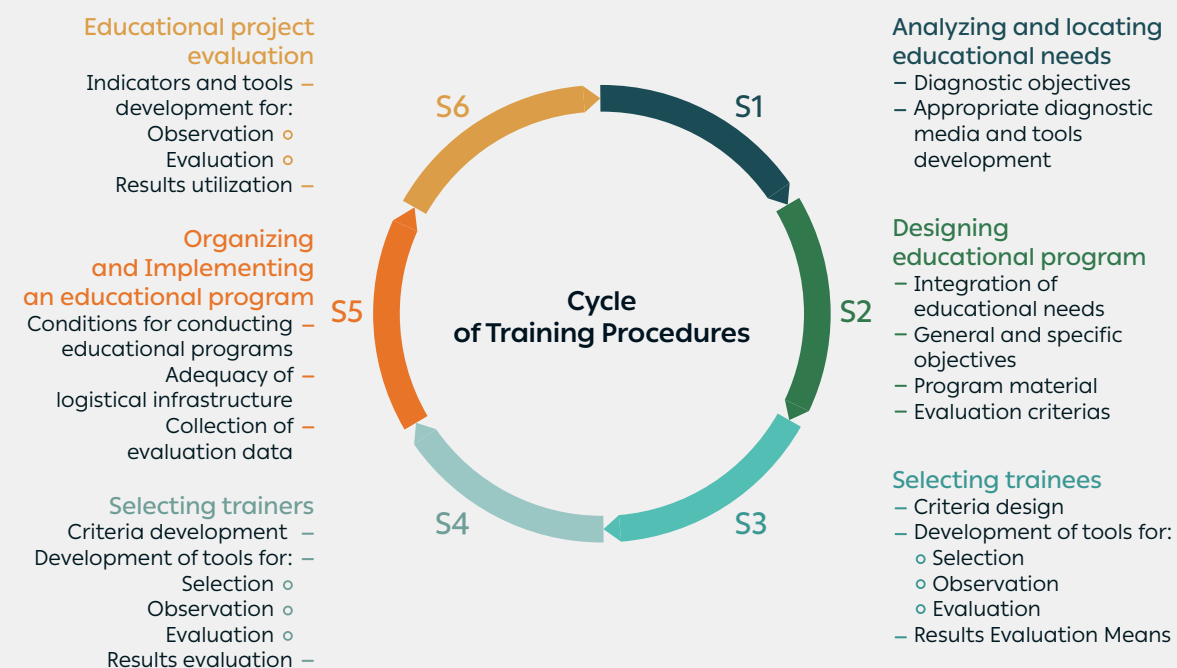
1,007 women

The mission of the Training Department is to provide high quality trainings and services for the development of human resources and the achievement of the Strategic goals of both the Company and its external customers.





The work of the Training Department is reflected in the "Cycle of Training Procedures", which is divided into the following Systems which support the Training Programme:



The Training Department monitors, manages and evaluates the training needs of employees, aiming at the development of the Company's human resources and the achievement of its strategic goals. The systems used in the training project cover the analysis and identification of educational needs, the design of training programs, the selection of trainees, the selection of trainers, the organization and implementation of training programs, and the evaluation of the training project (training cycle).

The Training Department has training structures fully equipped and accessible to every employee or visitor, as well as to people with disabilities, in the regions:

- Attica (Athens School of Accelerated Education and classrooms at headquarters).
- Western Macedonia (School of Accelerated Cardiac Education and School of Accelerated Mining Staff Training).

It is worth mentioning that it has been decided to relocate the Athens School of Accelerated Education, to buildings provided by the Company:

- in Pratinou and Amaseias str. in Pagrati,
- in 42 Kraterou str. in Zografou.

The buildings will house teaching and computer rooms as well as office space to the Athens School of Accelerated Education.

In 2019, PPC decided in the abolition of the School of Accelerated Education of Megalopolis and the delivery of facilities at the Hellenic Open University. PPC employees participate in training programs on technical issues as well as topics of general interest, postgraduate programs, foreign language programs, lectures, conferences and seminars.

In 2019, a total of 51,677 training hours have been recorded. Out of a total of 4,148 participants, 3,141 were men and 1,007 were women.

In the direction of enhancing the efficiency and the development of professional attitudes, in 2019 a training program "Business English" was implemented, with a duration of 100 training hours, with the possibility of exceedance to 150 training hours, for the executives who wish it, for 100 executives of the Company, which will be completed within 2020.

#### Developing a professional approach



#### "Business english"

100 hours                      Hours 2018: 1,732

100 executives                      Hours 2019: 4,339

Employee categories	2017			2018			2019		
	Number of participants in training programmes	Total training man-hours	Average training man-hours per participant	Number of participants in training programmes	Total training man-hours	Average training man-hours per participant	Number of participants in training programmes	Total training man-hours	Average training man-hours per participant
Executives	113	922	8.16	36	283	7.86	8	52	6.50
Admin/Finance employees	1,256	10,904	8.68	572	5,696	9.96	751	12,492	16.63
Technical – Technological employees	1,299	13,387	10.31	753	8,465	11.24	440	5,455	12.40
Technical support employees	4,690	91,087	19.42	3,413	33,441	9.80	2,614	27,545	10.54
Workers	278	2,498	8.99	182	3,356	18.44	201	2,489	12.38

Employee categories	2017			2018			2019		
	Number of participants in training programmes	Total training man-hours	Average training man-hours per participant	Number of participants in training programmes	Total training man-hours	Average training man-hours per participant	Number of participants in training programmes	Total training man-hours	Average training man-hours per participant
Expert staff	18	138	7.67	53	334	6.30	41	815	19.88
Consultants	–	–	–	–	–	–	–	–	–
Unspecified category*	535	6,518	12.18	408	5,245	12.86	93	2,829	30.42
<b>Total</b>	<b>8,189</b>	<b>125,454</b>	<b>15.32</b>	<b>5,417</b>	<b>56,820</b>	<b>10.49</b>	<b>4,148</b>	<b>51,677</b>	<b>12.46</b>

\* The category the participant belongs to is unrecorded.

## 6.4. Safeguarding human rights at work

The Company is constantly striving to develop an equal opportunities workplace where employees respect each other and where there is no discrimination. To date, no cases of discrimination have ever been recorded or reported.

Respect for human rights is an inviolable principle for PPC. PPC is against all types of forced or child labour. The company fully complies with Greek legislation on child labour and implements procedures which preclude cases of child labour occurring. As in the past, no cases of forced or child labour were reported in 2019. In addition, no cases of the human rights or the rights of indigenous populations being violated have been recorded. PPC fully respects human rights and implements the relevant national legislation. PPC does not make any discrimination on pay or on any other issue based on gender, age, race, colour, heritage, national or ethnic background of its employees.



It is also worth mentioning that PPC as a member of CSR Hellas and the European Business Network "CEASE", in November 2018 signed the Business Charter for Combating Violence against Women. In this context, in 2019 PPC participated in a lifelong onsite educational workshop with 22 executives organized by CSR Hellas with the following topics:

CEASE programme presentation

- PART I: Domestic violence – What do we know?
- PART II: How do we recognize the signs of violence?
- PART III: How do we support a colleague-victim of domestic violence?
  - Victim support mechanisms in Greece
- PART IV: Guest speeches:
  - Impact of children – ELIZA NGO
  - Telephone victim support and legal framework – GENERAL SECRETARIAT FOR GENDER EQUALITY
  - Breaking stereotypes: Statistics, Profiles of victims and perpetrators – KETHI & Municipality of Athens
  - Legal support for victims/presentation of the bodies involved by law – DIOTIMA

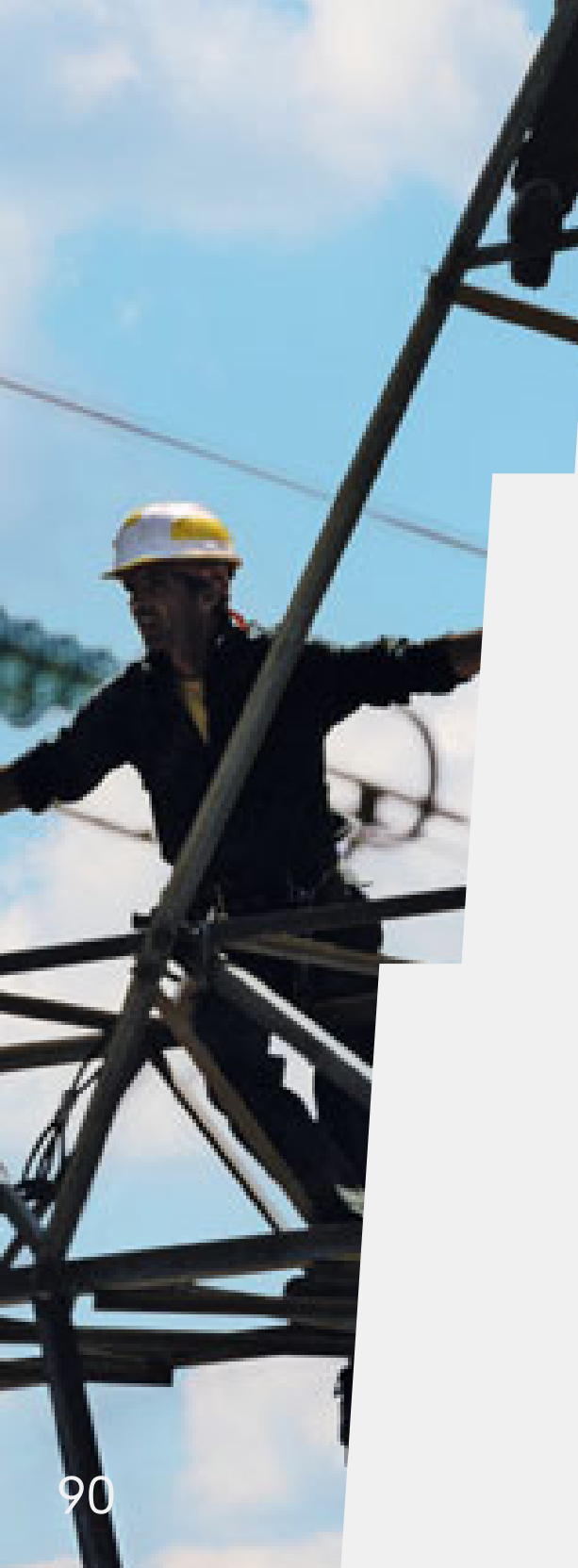
## 6.5. Safeguarding health, safety and wellbeing of employees and partners

PPC's approach to occupational health and safety is in accordance with its policy on occupational health and safety and its accident prevention policy, which was updated in 2018. In the updated version, specific reference is made to measures for preventing large-scale industrial accidents, in cooperation with the competent authorities and the neighboring industries.

Since March 2012, the Occupational Health and Safety Department, which is responsible for managing these issues in PPC (as the In-House Protection and Prevention Service, licensed by the Ministry of Labor), has received the ELOT EN ISO 9001 certification for its Quality Management System. The System was re-certified during 2018 according to the revised ISO 9001 of 2015 standard. Moreover, since 2012 the Occupational Health and Safety Department has held a license as an External Protection and Prevention Service Provider with the ability to provide protection and prevention services to customers inside and outside PPC Group.







PPC is committed to the implementation of the relevant provisions of the Greek legislation, for the health and safety of employees, as well as the immediate harmonization with any new relevant European directive. In this direction, the Occupational Health and Safety Department, through the business cooperation portal, ensures the information of the units in relation to legal issues, issued instructions and regulations, as well as the assessment of their legal compliance.

The priority of the Occupational Health and Safety Department, for the control of the risks from accidents and occupational diseases, is to build a culture of safety at work at all levels of the hierarchy. The mission of the Department is to engage employees from all levels of the hierarchy, as well as those who have an employment relationship with the Company, in the general objectives for the prevention of accidents.

The PPC Health and Safety Policy makes clear reference to the ongoing consultation with the personnel trade unions and employees representatives on Occupational Health and Safety issues.

#### **Occupational medicine**

Through the Occupational Health and Safety Department, Occupational Medicine is practiced in the Company, which contributes to maintaining the health of employees, the prevention of occupational diseases and the upgrading of working conditions. The aim is to implement procedures that will at least ensure that the requirements of the current legislation are met, which obliges companies to keep an individual medical record of occupational risk for each employee.

The partial objectives of the Occupational Medicine at PPC are:

- Carrying out medical check-up specialized for each group of employees.
- The connection of the check-up findings with the specific working conditions of each group (workplaces, harmful factors to which each group is exposed, etc.).
- Intervention to improve special working conditions, where necessary.

In this context, the actions that have been taken to upgrade the institution of the Occupational Physician at PPC are as follows:

- Establishment of the Occupational Medicine Section in the Occupational Health and Safety Department, with the aim to organize, coordinate and promote at a central level the activities of Occupational Medicine at PPC.
- Staffing of the body of Occupational Physicians with specific Occupational Physicians (employees, temporary personnel and external partners).
- Arrangement of space for the creation of doctor offices in high-risk workplaces and supply of medical equipment, modernization of ambulances and supply of new ones.
- Staffing, in high-risk workplaces, of clinics on a 24-hour basis with nursing staff.

- Establishment of an individual occupational risk file for each employee.
- Implementation of a regular medical examination procedure after grouping the employees based on the risks and harmful factors to which they are exposed during their work and identifying the medical examinations that are necessary for each group.
- Study (by gathering a sufficient number of data from medical check-up) of the results depending on the job and taking measures for the prevention of occupational diseases. The installation of software on a computer network that is installed in each doctor's office contributes to the study of the data.
- Evaluation (in some cases) of the suitability of employees in the job position they hold, based on the results of the medical check-up.

#### **Occupational Risk Assessment Studies, Emergency response plan drills, H&S Inspections**

In 2019, 24 Written Occupational Risk Assessment studies were conducted (initial study or revision) in PPC Group's facilities: 4 at HEDNO (DOAESM, Kos Area, Lesvos Area, Aspropyrgos warehouse) and 20 at PPC (TPP Linoperamata, Skyros LPP and Stores of Athens, Peristeri, Kifissia, Central Thessaloniki, Elefsina, Piraeus, Astros, Andros, Serres, Kilkis, Heraklion A & C, Mires, Chania, Rethymnon, Agios Nikolaos, Ierapetra, Sitia). Studies include the identification of sources of occupational risk, the measures by which sources of risk can be eliminated or avoided, prevention measures already in place and those to be taken in addition to risk control and protection of employees, as well as the experience of the employees recorded through questionnaires in their work subject in relation to the risk. It is therefore understood that Studies constitute an effective tool for ensuring the safety and health of employees at work and for the prevention of accidents and occupational diseases.

In accordance with PPC regulation that provide for emergency protocols, the Occupational Health and Safety Department, implements training programs for risk/disaster management and Emergency Response Plan drills, so that the employees of the Company will be able to deal with emergency situations/incidents.

In 2019, a total of 10 Emergency Response Plan drills were implemented, including the SEVESO exercises at Komotini TPP, Lavrio TPP and Kos APP. Respectively, in 2019 inspectors of the Occupational Health and Safety Department participated in 18 inspections related to occupational health and safety (12 of them at HEDNO, 6 at PPC). The results of the inspections were communicated to the hierarchy of the competent Departments.

In addition, the audits for (re)certification and supervision by independent bodies continued with success, according to the standard OHSAS 18001:2007 (ELOT 1801), of the Occupational Health and Safety Management Systems of all thermal power plants of the Company, of the Main Field Mines and Kardia Field of the West Macedonia Lignite Center, as well as the Support Units of the West Macedonia Lignite Center. The aforementioned Systems are in the process of transition to the new ISO 45001: 2018 standard.

It is also noted that the Skyros LPP received its first certification according to ISO 45001:2018.

At the same time, 2 joint committees were set up with executives from the Occupational Health and Safety Department and the Thermal and Hydro Generation Business Unit/Lignite Power Plants Operation Department. The first one is responsible for preparing the Health and Safety Management Systems of TPP's to comply with the updated ISO 45001:2018 standard, while the second one is responsible for the drafting of an instruction on protection measures against any possible presence of hexavalent chromium in gas turbines at PPC power plants.

#### Training on Health and Safety issues

The training on health and safety issues is an integral part of the basic and special technical training that employees receive. Training courses are held onsite at PPC plants. The courses are designed in partnership with the Occupational Physician, the Safety Technician and the Plant Manager, or take the form of training seminars held by the Training Department.

The training courses cover the following subjects: health, medicine, occupational safety, first aid, as well as the safe use of work equipment and of the personal protective equipment. Furthermore, employees are informed about contagious diseases and participate in emergency drills in collaboration with local organizations, institutions of the General Secretariat for Civil Protection and in some cases the armed forces.

In 2019, 8 training cycles on the Independent Emergency Design Policy (IEDP) for the authorized personnel of HEDNO were carried out. In addition, 20 training cycles for 290 employees (1,490 hours) on Emergency Response Plans, were carried out.

The 31 Occupational Physicians, in the context of training and briefing on health, medical and occupational safety issues, provide information to personnel on diseases, first aid practices, periodic medical check-ups and other matters of their competence.

The training-briefing seminars addressed to the Safety Technicians are the main occupational health and safety seminars. In 2019, one training cycle for Safety Technicians (1st and 2nd phase) was carried out in Athens. Additionally, a specialized training for the Sales Safety Technicians was conducted.

Specific occupational Health and Safety topics and relevant subjects are included in the program for other seminars run by the Training Department (e.g. orientation training for new recruits).

	2017			2018			2019		
	Number of participants in training programmes	Total training man-hours	Average training man-hours per participant	Number of participants in training programmes	Total training man-hours	Average training man-hours per participant	Number of participants in training programmes	Total training man-hours	Average training man-hours per participant
Lignite Generation Business Unit	2,524	24,295	9.63	2,771	30,788	11.11	1,807	21,048	11.6
Thermal & Hydro Generation Business Unit	1,431	13,217	9.24	1,485	12,998	8.75	1,034	8,211	7.9
Sales Business Unit	128	316	2.47	6	24	4.00	7	56	8.0
Finance Division	—	—	—	4	28	7.00	—	—	—
Human Resources & Organization Division	46	148	3.22	69	423	6.13	53	456	8.6
Support Operations Division	453	2,368	5.23	34	284	8.35	—	—	—
Other Units/ Divisions	3	30	10.00	109	1,079	9.90	32	255	8.0
<b>Total</b>	<b>4,585</b>	<b>40,374</b>	<b>8.81</b>	<b>4,478</b>	<b>45,624</b>	<b>10.19</b>	<b>2,940</b>	<b>30,234</b>	<b>10.3</b>

The data in the table above relate to training programmes handled and organized by the Training Department (locally implemented training conducted by the Departments in PPC plants is not included).

#### Health and Safety for contractors and subcontractors

To ensure the health and safety of the staff of PPC's contractors, the latter are responsible to comply with the occupational health and safety legislation and are subject to the legal sanctions involved. Contractors expressly undertake exclusive responsibility for designing and implementing safe working measures for persons employed on project construction and for third parties as well.

Contractors and /or subcontractors are obliged to provide their staff with suitable personal protective equipment (PPE) depending on the work being executed, to take all health and safety at work measures as specified by law and to comply with the obligations for a Safety Technician and an Occupational Physician, to assess and prevent occupational risk, to protect against harmful agents, to keep employees informed about these issues etc.

Upon entering the worksite, contractors are obliged to provide the Company with a list of the staff to be employed (number, specialty), as well as all other information which the Company considers necessary about such staff. If the Company considers this necessary, the contractor's staff must undergo training relevant to specialized technical works which are to be undertaken. This training is provided at PPC's Vocational Training Centre.

PPC performs controls to contractor work crews and -among others- examines:

- The personal protective equipment, the group protective equipment and tools (adequacy, condition and use by the contractor's staff).
- Whether the contractor's staff hold the necessary licenses/permits.
- The provisions of contracts and the PPC CEO's decision No. 96/2010 are being implemented, to ensure that PPC's contractors conform to the labour and social security law.

	2017	2018	2019
Total no. of accidents <sup>1</sup>	50	42	42 <sup>1</sup>
Total no. of fatal accidents <sup>2</sup>	0	0	0
Fatal accident frequency rate <sup>3</sup>	0	0	0
Accident frequency rate <sup>4</sup>	2.37	2.12	2.54
Total no. of days of absence from work due to accidents	1,819	1,355	1,217
Accidents severity rate <sup>4</sup>	0.09	0.07	0.07

1. The number of accidents for the year 2019 is 42 instead of 43 which was included in the 2019 Annual Financial Report. Also, the methodology taken into account is the "European statistics on accidents at work (ESAW) - Methodology - 2001 edition" followed by European Agency for Safety and Health in ESAW work EU - OSIA and EURELECTRIC. The number of accidents includes all accidents occurring during employment of the permanent and seasonal/temporary staff, which caused absence from work for more than three (3) calendar days. Accidents occurring while travelling to and from work or cases of sickness, which are analysed separately (from a statistical viewpoint), are not included.

2. Total No. of fatal accidents among employees based on the European statistics on accidents at work (ESAW) Methodology - 2001 edition.

3. Calculation method: Number of fatal accidents per 10,000 employees in line with ESAW.

4. The methodology taken into account to calculate the indicators is the "European statistics on accidents at work (ESAW) - Methodology - 2001 edition", which is also followed by the European Agency for Safety and Health at Work (EU-OSHA) and EURELECTRIC. Calculation method for frequency rate: Number of accidents per 10<sup>6</sup> hours of exposure to risk. Calculation method for severity rate: Number of days off work (calendar) per 10<sup>3</sup> hours of exposure to risk.

In 2019, no fatal accident involving PPC employees occurred during working hours.

From the above 42 purely work-related accidents of 2019:

- 30 occurred in activities related to lignite production, in the geographical area of Western Macedonia.
- 11 occurred in activities related to non-lignite production (3 in Attica, 3 in Crete, 2 in Rhodes, 1 in Chios, 1 in Arta, and 1 in Drama).
- 1 happened to an activity related to Supply (Sales), in Achaia.

The absolute number of accidents is the same as in 2018, but the frequency rate shows a small increase, due to the reduction of risk exposure hours, due to the reduction of PPC personnel.

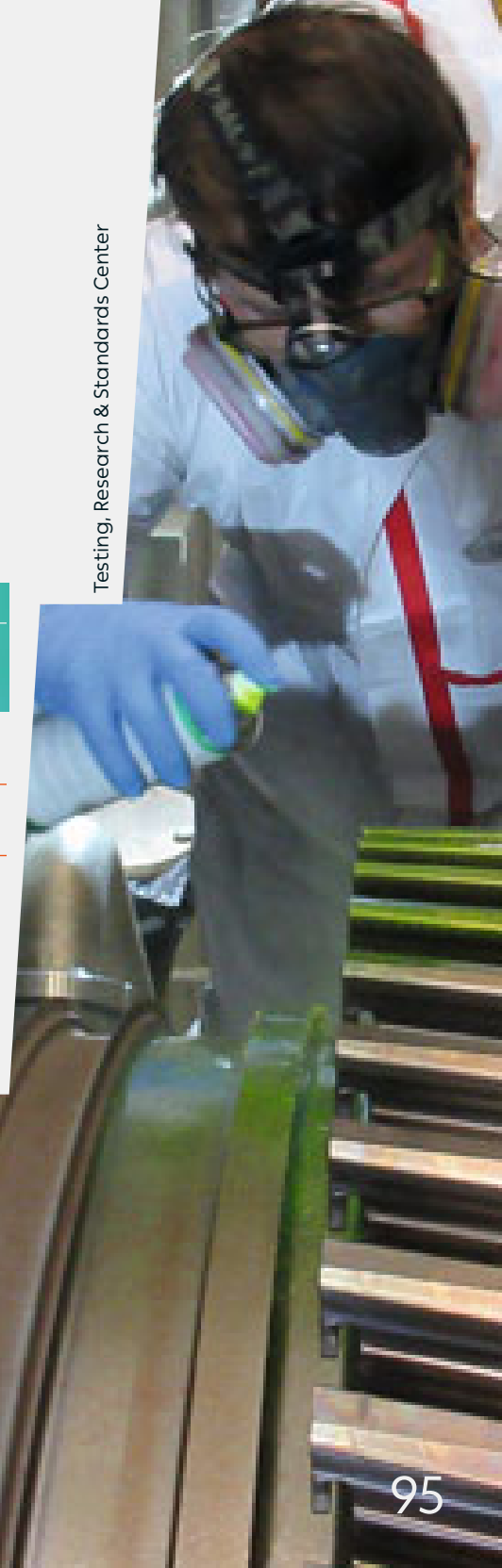
Accidents	2017		2018		2019	
	Number of non-fatal accidents	Number of fatal accidents	Number of non-fatal accidents	Number of fatal accidents	Number of non-fatal accidents	Number of fatal accidents
PPC employee accidents	50	0	42	0	42 <sup>3</sup>	0
PPC contractor accidents <sup>1</sup>	7	1	11	0	8	0
Third party accidents <sup>2</sup>	0	0	0	0	2	0

1. It is quite possible that some accidents may have gone unnoticed as a contractor may have failed to report them to the relevant authorities and consequently to PPC.

2. These accidents usually concern electrocution or road accidents. Electrocution is caused by involuntary contact with "live" parts of the network either during the construction of structures (buildings, advertising signs, etc.) or during the operation of lifting equipment. These are usually due to failure to keep the correct safety distances or even due to the failure to request by citizens the disconnection of specific parts of the network.

3. The number of accidents for the 2019 is 42 instead of 43 which was included in the 2019 Annual Financial Report. Also, the methodology taken into account is the "European statistics on accidents at work (ESAW) - Methodology - 2001 edition" followed by European Agency for Safety and Health in ESAW work EU - OSIA and EURELECTRIC. The number of accidents includes all accidents occurring during employment of the permanent and seasonal/temporary staff, which caused absence from work for more than three (3) calendar days. Accidents occurring while travelling to and from work or cases of sickness, which are analysed separately (from a statistical viewpoint), are not included.

The 8 non-fatal accidents of contractors occurred in the area of Western Macedonia. From the above, the need to continue the controls of the contractors' work emerges.



PPC unit	2017				2018				2019			
	No. of accidents	Accident frequency rate	No. of days absent due to accidents	Accident severity rate	No. of accidents	Accident frequency rate	No. of days absent due to accidents	Accident severity rate	No. of accidents	Accident frequency rate	No. of days absent due to accidents	Accident severity rate
Lignite Generation Business Unit	31	4.09	636	0.08	29	4.41	660	0.10	30	6.11	854	0.17
Thermal & Hydro Generation Business Unit	15	0.08	719	0.08	12	1.38	644	0.07	11	1.52	244	0.03
Sales Business Unit	2	0.01	20	0.01	1	0.52	51	0.03	1	0.51	119	0.06
Other Plants/Head-quarters	2	0.12	302	0.12	0	0	0	0	0	0	0	0

The Occupational Health and Safety Department ensures that PPC's accident prevention policy and its effectiveness are fully documented and systematically evaluated. In 2019, the issue of the Statistical Accident Analysis of 2018 for PPC was prepared, which was posted on the Corporate Publications System (SED-Portal) in February 2020. Also, 2 extensive reports were prepared on the accidents that occurred to the Lignite Generation Business Unit and the Thermal and Hydro Generation Business Unit personnel during 2018. These reports were sent to all PPC service units in January 2020, in order to raise awareness of the personnel on the prevention of similar incidents.

#### Support to employees and their families

The Social Workers Subsection of the Occupational Health and Safety Department is engaged in offering individual and family counselling and support to employees, briefing them and referring them to the competent services, preparing detailed Social Surveys Reports and brief Statements of recommendations/findings etc.

In 2019, 77 Social Surveys Reports regarding the provision of financial aid to employees, were carried out. In 232 cases, employees were provided with guidance about how to address their personal problems, and when deemed necessary, they were sent to specialized centres and services outside PPC. As part of the Social Worker's visits in the region to identify and address problems, 16 visits in PPC's and HEDNO's plants were made throughout Greece.

A Psychologist's Office operates in a separate section of the Occupational Physician's Offices in Thessaloniki, aiming at providing personal or family psychological and counselling support to employees facing difficulties in handling situations at workplace as a result of physical or mental illness, in carrying out psychotherapy sessions, psychological evaluations through collaboration with competent services, bodies outside PPC, Occupational Physicians and Social Workers. At the

same time, a schedule of psychologist visits is followed, once a week, at the West Macedonia Lignite Centre having its seat in Ptolemaida, in order to provide psychological and counselling support to PPC personnel in the West Macedonia area and to members of their families.

In 2019, the Psychologist's Offices in Thessaloniki and Ptolemaida were visited by 41 people (employees and members of their families) for the provision of psychological and counselling support and 252 sessions were administered (23 people - 140 sessions in Thessaloniki and 18 people - 112 sessions in Ptolemaida). It is mentioned, that for the Social Workers Subsection's and the Psychologist's Offices' activities, personal data protection is strictly observed.

In addition to the above, the Board of Directors of the Association of PPC Technicians (ETE/DEI), granted 8 emergency aids to members of the Association who face serious health problems or have undergone surgery and are facing financial problems.

#### Participation in conferences

The Hellenic Institute of Occupational Health and Safety (ELINYAE) organized the 2nd Hellenic Conference on Occupational Health and Safety, with the topic "Looking to the future", on November 18 and 19, 2019, in Athens.

PPC responded to the call of ELINYAE and participated in the conference as Supporter. Moreover, the Occupation Health and Safety Department presented at the conference a paper entitled "PPC's innovative actions for Health and Safety", which highlighted the important and multifaceted work performed by the Company in the field of Health and Safety. The presentation included, among others:

- the fully organized and staffed nationwide first aid and medical check-up clinics of PPC,
- the Skills Control System for drivers - handlers of heavy vehicles that operates in an organized PPC Clinic in Kozani,
- the pioneering Exercises of the Emergency Response Plans carried out in the PPC Service Units with the participation of external bodies,
- the social activity of sending 7,500,000 newsletters on Organ Donation which was carried out by the Company,
- the action of activating emotional intelligence of the Kardias TPP, where the children of the employees were invited to create paintings on the theme of health and safety at work and succeeded with their works to induce deep emotions and feelings of responsibility to the employees.





## 6.6. Improving provided services and developing new services/products GRI 103-2



### Customer service

**1,992,405** calls at 800 900 1000\* | **1,853,642** were answered

**156,471** electronic customer requests through [www.dei.gr](http://www.dei.gr)

**80%** of requests/complaints are answered within 1 day



### Products and services

**6,551,332** power supplies  
1,008,736 power supplies in the "e-bill" platform  
1,900,000 MWh PPC RES guarantees of origin were provided to companies



### Social residential tariffs and vulnerable social groups

**476,113** beneficiaries of SRT and

**6,347** 6,347 vulnerable customers

\* The number 800 900 1000 which is provided free of charge, operated in 2020 to replace 11 770.



### Products and services

The main product of PPC is the supply of electricity to household customers, professionals and large companies throughout the country. PPC has different tariffs for different categories of customers. Tariffs are distinguished depending on the voltage (high, medium and low) and depending on the customer category (household, business and agricultural tariffs, public lighting). Since 2015, PPC offers the "Corporate Tariff" to large companies and Groups (with total annual consumption equal to or greater than 10 GWh) that have many different customer service points nationwide (100 or more power supplies) in the medium and low voltage.

According to a relevant decision of the Regulatory Authority for Energy (RAE), PPC, as Default Supplier\*, has undertaken to supply electricity to small customers, who have not found a supplier or who are unable to find a supplier in the free market based on the existing commercial terms. The small customers include all household customers and other customers with electricity power supply up to 25 kVA. The number of small customers that are included in the Default Supplier regime is 134,272 (data for December 2019).

### Last Resort Supplier

The Last Resort Supplier is the Supplier who is obliged to supply consumers, who are not represented by a Supplier, due to the fault of their most recent Supplier, which has led to their being deleted from the Register of Electricity Market Participants. In this way, the continuation of the electrification of their properties is ensured.

### Customer briefing

PPC's website ([www.dei.gr](http://www.dei.gr)) provides information in Greek and English. Company's customers have the opportunity to be informed about new programs that concern them, about any commercial issue they may have, about corporate news, as well as find the answers to the most frequently asked questions. There are also contact forms depending on the topic of interest (bills, general issues, data changes, applications for registration in the prepaid bill program, etc.) through which they can be served.

Customers have also the opportunity to contact the Company via email at [info@dei.com.gr](mailto:info@dei.com.gr) in Greek and English. In 2019, approximately 156,471 electronic customer requests were received through the PPC website. PPC, in addition to its website and stores, uses social media (YouTube, LinkedIn, twitter, Facebook) to be in constant communication with its customers. The Company has also developed a specialized application (app) for mobile phones (iPhone and Android), through which users have direct, reliable and fast access to PPC services, wherever they are. The PPC app offers all existing services

\* Based on the 1352/2020 RAE decision, for the period 29/9/2020 - 28/9/2022 another company was appointed as a Last Resort Supplier. In addition, according to the new institutional framework, PPC is 1 of the 5 Default Suppliers.



for immediate service that the Company has electronically, such as the e-bill, access to e-banking for payment of PPC bills, change of address bill, finding the nearest service points and bill payment, telephone and electronic communication with PPC, but also access to HEDNO services, such as scheduled power outages and fault telephones. It also provides the opportunity to send information from PPC per geographical area. Overall, the app is designed to include the most popular ways to serve anyone on the go.

For people with visual impairments or reading difficulties, PPC provides, via voice message, information about its services. According to the new visual identity, which is gradually being implemented in PPC Stores network, the stores, apart from the aesthetic upgrade of their spaces, the enhancement of their safe operation and the promotion of the corporate image, include special ramps to facilitate the access to persons with disabilities.

#### Nationwide telephone customer service

PPC customers can be served for all their issues by phone at 800 900 1000 (former 11 770), instead of visiting the stores. In 2019, 800 900 1000 received 1,992,405 calls, with PPC successfully answering 1,853,642 of them (successful calls are considered the calls that were answered by PPC and there was a successful conciliation). It is noted that PPC customers can be served through 800 900 1000 also in English.



#### Customer Service for Free 800-900-1000

#### Corporate customer service

In 2017, the organizational structure of the Sales Business Unit changed aiming to better meet the needs of customers, potential and existing ones. The Company divided corporate customers into the following categories:

- Strategic customers > 10 GWh/annum
  - Strategic customers - Key accounts: All high voltage customers and single or multiple power supply customers, regardless of supply voltage, with consumption greater than 10 GWh/annum.
- Large customers 1 to 10 GWh/annum
  - Large customers - accounts: customers of single or multiple power supplies, regardless of supply voltage, with consumption greater than 1 and less than 10 GWh/annum.
- Medium customers 0.5 to 1 GWh/annum
  - Medium customers: Medium voltage customers with consumption up to 1 GWh/annum and customers of single or multiple power supplies (excluding household), regardless of supply voltage, with consumption from 0.5 to 1 GWh/annum.
- Public sector customers: customers of the narrower and wider public sector regardless of consumption and voltage.

Every customer is being serviced according to the modern principles and sales promotion practices by specialized executives throughout the country, with specialized knowledge and experience in managing relationships with important customers, as befits the modern needs presale - sale - aftersale.

Priority is given to retaining and developing strategically important customers, aiming to achieve a comparative advantage and increasing the degree of customer loyalty, by creating a value proposition (combined offer of commercial terms and products/services) on a mutual benefit basis (win-win situation).

This approach is expected to contribute to the following:

- Promoting the customer-centric character of PPC and improving the image and perception of the customer about PPC.
- Effective customer relationship management and creating a climate of trust.
- Added value product and the ability for the customer to estimate costs.
- Increasing the degree of customer loyalty.
- Strengthening the margins and the financial position of PPC.

#### Electronic bill

Since June 2017, the new electronic "e-bill" platform is in operation, which offers customers the following services:

- Ability to access bills online.
- Access to all bills of properties issued under customer's name.
- Access to bills dated back 12 months.
- Free SMS or email notification on the issuance of bills.
- Secure and easy online payment of bills.
- Option to receive only electronic bills.
- Option for selecting monthly invoice.
- Ability to access bill records from 2011.



The aim of the service is to provide better information to customers about their bills, while saving resources as well. At the end of 2019, 1,008,736 power supplies were registered in the e-bill platform, with 60% of them having chosen to receive only paperless bills. The customers' interest for the specific application is reflected by the fact that in 2019, PPC received a total of 15,204 e-mails on technical support issues concerning e-bill service. Since December 2017, a special telephone Technical Support service for the e-bill service has been operating for customers, free of charge, at 800 5000 400.

Specifically for 2019, PPC proceeded with the following actions regarding its commercial policy:

- For the improvement of both the time and the quality of customer service, to save human resources and to strengthen the reduction of its environmental footprint, the Company intensified actions for the registration of customers in the e-bill service, which include the option of sending electronically a "Monthly bill".
- For the provision of an incentive to choose an e-bill, the Company provided the possibility of a refund of € 1 for customers who receive their bill every two months and € 0.5 for customers who receive their bill on a monthly basis, until the end of 2019.

#### **Medium Voltage Energy Consumption Management "MyEnergy"**

In 2019, PPC developed a new PPC Energy Consumption Management platform for medium voltage business customers. The new digital tool of PPC MyEnergy allows medium voltage customers to monitor and understand the energy behavior of their facilities, 24 hours a day, 365 days a year. The new MyEnergy platform receives daily consumption of all power supplies that have smart meters from HEDNO and provides within the next day:

- Detailed picture of consumption on a daily basis every 15 minutes.
- Monitoring of consumption history per power supply.
- Comparison of consumptions with corresponding previous periods and with consumptions of similar companies.
- Updates and notifications via email about the level of consumption per power supply.
- The benefits of MyEnergy for customers can be summarized as follows:
  - Monitoring the energy efficiency of their facilities.
  - Ability to manage their energy costs.
  - Ability to save energy.

Customers can have easy access free of charge, through the e-bill service, at [www.dei.gr](http://www.dei.gr). The total energy saving in the approximately 5,000 power supplies from the use of MyEnergy, is estimated at 0.75 ktoe per year (approximately 9 GWh).

#### **Electronic contracts**

Aiming to further develop the electronic customer service, PPC intends to provide the ability of electronic contracts to its customers. Within 2019, all the necessary preparations have been made in the systems and the new service will be available to customers from the first quarter of 2020.

#### **Alternative payment channels**

PPC offers the option of alternative payment methods, in order to improve its services and reduce the waiting time of customer service. PPC's customers can pay off their bills at all PPC Stores, with cash or by card via POS devices. Debit, credit or pre-paid cards from all Greek banks are accepted. On PPC's webpage, customers can search the closest PPC Store through the Google Maps application.

The payment of bills can be made at the approved Banks' cashier points (National Bank of Greece, Eurobank, TT Hellenic Postbank and Piraeus Bank), at banks' ATMs or in cash at ATMs located at the banks, as well as through bank standing order.

Moreover, bills may be paid to the approved by the Bank of Greece Payment Institutions and Electronic Money Institutions, as defined by L. 4021/2011 and L. 4537/2018 on electronic transactions, as well as at their certified agents (e.g. OPAP stores, Viva Spots etc.). Customers can be informed on the service points through the webpages of each Institution.

As regards payments made outside Greece, PPC offers the option of bill payment through SEPA remittance from EU countries and Switzerland, Iceland, Lichtenstein, Monaco, Norway and San Marino.

PPC's customers can pay their bills through PPC's webpage ([www.dei.gr](http://www.dei.gr)) with the use of the approved banks' debit, credit or pre-paid cards, as well as through e-banking and phone-banking services, which are a more direct and secure payment option. The number of customer visits to PPC Stores in order to pay their bills in cash is gradually declining. More specifically, in 2019, it decreased to 15% compared to 18% in 2018.

PPC closely monitors the progress of the different customers' payment methods use trends. On a weekly basis, the payments being made at all company or cooperative points of payment are being monitored. On a regular basis a statistical analysis and processing of data, trends and customer preferences is being carried out.

### Pricing policy

PPC's pricing policy follows the current trends in the retail market and is designed in such a way as to meet the needs of customers, actively supporting both households and businesses. Moreover, the Company, through a properly designed program, rewards household consumers who are consistent in bill payments. Since September 1st, the Company proceeded to the review of its tariffs (combined with changes in regulated charges and VAT), which led to almost zero total impact on the average consumer.

1. The readjustment of MV and HV tariffs taking into account the reduction in ETMEAR and VAT.
2. The introduction of the clause regarding CO<sub>2</sub> in LV customers of zero impact according to the current data.
3. The abolition of the discount on the CO<sub>2</sub> readjustment clause applied to MV tariffs.

The Company continued in 2019 to implement the "Consistency Program", according to which it rewards business and household customers who pay their bills until the due date, providing a discount on the commission fee of their account. The percentage of the discount provided was formed from 1.1.2019 until 31.3.2019 to 15%, from 1.4.2019 until 30.8.2019 to 10% and from 1.9.2019 to 5%.

Since June 2017, PPC:

- offers the "Prepaid Account" Program to households, professionals, small and large businesses, providing a discount (from 1.4.2019) of 4% on the commission fee of the bills to customers who choose to join it, prepaying one year electricity bills.
- provides customers with the option to select the "Monthly Bill", so that they can include in their monthly budget the cost of electricity they consume. Specifically, they receive an electronic bill which consists of three consecutive monthly bills, based on consumption history of the corresponding period of the previous year, while every four months a clearing account is provided based on the counted indications of HEDNO.

### Social Residential Tariff

The Social Residential Tariff (SRT) was established for the protection of vulnerable consumer groups and is provided in accordance with a decision of the Ministry of Environment and Energy. Applications for joining the new SRT are submitted electronically through the special program of I.D.I.K.A. and SRT beneficiaries should apply to join the SRT each year, so that the conditions for joining the SRT shall be re-examined.

SRT beneficiaries are divided into two categories:

- a) Category SRT A' (includes those who meet the conditions for granting Social Solidarity Income).
- b) Category SRT B' (includes those who meet the requirements of scalable income criteria, according to their annual total actual or imputed income).

In addition to the above, there are special provisions for people with disabilities. For a household that includes a person or persons with a disability of sixty seven percent (67%) and above, the income limits are increased by € 8,000. Respectively, for a household that includes a person or persons in need of mechanical support, using medical devices, which is provided at home and is necessary for their life, the income limits are increased by € 15,000.

Furthermore, to the persons needing mechanical support who are beneficiaries of the Social Residential Tariff (SRT A 'and B'), since 01.10.2019, a 50% discount has been granted by PPC on the energy charge price of the invoice in question, which remains after the amount of the subsidy granted by the State, according to the relevant Government Gazette (Government Official Gazette B/242/01.02.18).

### Overdue debt management - Repayment plans and supply disconnections

PPC has offered for years repayment plans, depending on the category of customers (household, commercial, vulnerable groups, etc.) and the degree of their consistency in the payment of bills, so as to ensure their proper treatment and as an immediate response of the Company to the difficulties faced by Greek households and businesses, in the current economic situation.

PPC, following a tendering procedure in 2017, hired a special collection consultant, who proposed specific strategies for debt management. The cooperation with the company providing specialized support services with emphasis on overdue debts continued in 2019 and this strategy has begun to pay off and bring about an improvement in liquidity. This is evidenced by the positive sign of the receivables index 2019 (Receipts (€) for the period / Issued bills (€) for the period). Stabilization of overdue debts compared to 2018 has additionally been observed. Particularly for active low and medium voltage customers, the reduction of debts reaches 43%. In order to improve the receivables, the Company, in addition to the cooperation with the above company, implements a series of relevant actions, which contribute to the improvement of liquidity, but also to the upgrading of the relations with the customers and the more essential communication with each and every customer.

At the same time, within 2019, the Company:

- Adopts a new regulation for repayment plans with a simpler and more efficient way of calculating down payment and number of installments, in order to reduce overdue debts.
- Continues the cooperation with a company providing specialized support services, aiming at the most effective management of its clientele, with emphasis on overdue debts.
- Continues intensively, according to the Electricity Supply Code, supply disconnections due to debt and pauses in representation to inconsistent customers, who at the same time did not respond to calls to settle their overdue debts.
- Intensifies the actions in PPC Stores for the collection of debts.

For customers who do not pay their bills or have delinquent behavior and who, despite the deadlines provided to them for the payment of bills and installments, continue to fail to meet, PPC sends a request for supply disconnection to HEDNO, that proceeds with disconnecting the electricity supply. Within 2019, 154,917 disconnections and re-checks of supply disconnections were carried out, of which 75% concerned household customers.



From the customers whose electricity supply is disconnected due to debt, only 45% of them pay or settle their debt. These customers are usually reconnected immediately. Out of the remaining 55% of disconnections, 46% have received a final bill, while the remaining 54% of customers remain active.

Especially for customers who have joined the social residential tariff and in the register of vulnerable customers, as they are determined by the state, limited supply disconnections are issued due to debt, during the five months allowed by the electricity supply code (April-June and September- October) and after the Company has exhausted every opportunity to find a solution.

It is also worth mentioning that aiming at improving the service of customers who wish to enter into a debt repayment plan and reducing the waiting time in stores, PPC provides the ability to submit a request by phone through 800 900 1000, without having to visit a PPC Store.

#### Archive digitization

PPC is constantly updating its procedures in order to better serve customers, but also to save significant resources. In this context, a new program for the digitization of all new documents and contracts was initiated in 2019, which contributes to the gradual digitization and updating of the entire customer archive. In this way, PPC contributes to the reduction of paper use required for the printing of new documents and contracts.

#### Guarantees of Origin

Guarantees of Origin (under the tradename Greenpass) certify to anyone concerned that for the quantity of electricity consumed at his/her facilities a corresponding quantity of energy has been generated from PPC hydroelectric power plants and has been specifically set aside by PPC in his/her name. One Guarantee of Origin represents the rights to environmental and social characteristics from the generation of 1 MWh from RES.

Since 2016, PPC has approved the pilot granting of Guarantees of Origin, from its certified HPPs' generation to its important customers. In 2019, the Company granted Guarantees of Origin to COSMOTE Group, as well as to ALPHA BANK, Piraeus Bank, BIC-Violex, MEGA Disposables, Air Liquide, YOULA GLASSWORKS, MASOUTIS, AB VASILOPOULOS, HELLENIC HYPERMARKET SKLAVENTITIS, AGET HERACLES, CORINTH PIPEWORKS, ALVALHALCOR, SYMETAL ALUMINUM FOIL INDUSTRY, FRAPORT Regional Airports of Greece and the Athens International Airport "Eleftherios Venizelos". The total Guarantees of Origin granted for the year 2019 amounted to 1,900 GWh.

PPC, recognizing the market needs for energy products of Guarantee of Origin, the urgent need for environmental protection and the tendency for investments that will lead to decarbonization of electricity production in Greece, designed and will promote in 2020 Greenpass products, which will be addressed to both large and small businesses that are environmentally aware, but also to the household sector, in order to meet the needs of households that support sustainable energy production and consumption.

#### Carrying out Energy Audits in Customers' Businesses

PPC carried out free energy audits in businesses of customers in the year 2019. These are small and medium enterprises of the industrial sector, whose total annual consumption in 2019 was 51 GWh.

The energy audits were carried out in accordance with the energy audits provided for by the law.

From the findings of the Energy Audits and the implementation of the proposed energy upgrade measures that resulted from them, the energy saving that could be achieved in the facilities of the PPC customers, in which the audits were performed amount to 0.65 ktoe per year (approximately 7.5 GWh).

Free energy audits in industrial enterprises of PPC customers will continue in 2020.

#### Our performance GRI 103-3 PPC indicator

##### Customer satisfaction surveys

PPC conducts qualitative and quantitative surveys in the context of the customer-centric approach which PPC structures in a systematic way, in order to identify its customers' new needs and explore their views about the services being offered.

In 2019 there was not conducted any new research. Nevertheless, PPC, aiming to gain its customers satisfaction, as well as to establish long-term and strong relationships of trust with them, has decided to start systematically monitoring the customer experience, and evaluating its services using questionnaires and indicators and specifically the Net Promoter Score (NPS). This indicator shows the percentage of customers who are willing to recommend the product or services they use to other potential customers.

In this context, it is already planned to implement two NPS surveys within the first quarter of 2020 to customers who have been served by PPC Stores and PPC call center, but also to those who use the e-bill application, in order to evaluate how satisfied our customers are with PPC services.

In addition, the Company will receive feedback from prospective customers, so that it can determine the reasons why customers were not satisfied, so that by acknowledging their problems or suggestions, PPC will be capable of solving them, as well as of improving at the same time its provided services.

##### Managing complaints and customer requests

Any potential complaints from the part of our customers are considered as an opportunity to improve the services that PPC provides and increase their satisfaction. Complaints and requests to PPC are submitted either in writing via letters (directly from customers, through the Greek Ombudsman or the Hellenic Consumers' Ombudsman, etc.) or via email, or over the phone on the customer service line (800 900 1000) and every effort is taken in order to respond to all.



PPC's main objective is to ensure quality customer service and handle customer requests in the best possible way. The Company has designed specific, uniform procedures in order to ensure rapid, effective management of customers' requests and complaints. These procedures are in line with the Electricity Supply Code (NOG issue B' 832/9.4.2013) and in particular Annex III on "Principles for Managing Consumer Requests".

To that end, PPC has drawn up and implements the Customer Requests and Complaints Management Code, which outlines the method and procedures customers must follow if they need more information or clarifications about the supply of electricity to their property and facilities or if they wish to make a request/file a complaint. The Customer Requests and Complaints Management Code is available on PPC's official website.

PPC handled a total of 2,023,783 requests and complaints which were submitted in writing, through PPC Stores or the online customer service portal at [www.dei.gr](http://www.dei.gr), as well as by phone through 800 900 1000 (1,853,642 calls out of which 1,672,831 were requests and 180,811 complaints).

From the 170,141 written requests and complaints (through stores, institutions and/or through [www.dei.gr](http://www.dei.gr)) 140,841 were requests and 29,300 complaints, which we monitor from various points, through a computerized registration system and a ticketing system.

The separation of request and complaint is done by the PPC employee who receives and/or processes the case, judging from the way the customer approaches the issue and the way he/she addresses PPC.

In addition to the above, there was a significant number of requests or complaints submitted orally to PPC Stores, but since they were resolved immediately and did not require special management/ registration in the systems, they were not recorded.

PPC tries to respond to customer requests and complaints as soon as possible, succeeding in responding within 1 day to 80% of requests/complaints. It is clarified that the requests/complaints that are answered within a period of more than 3 days, usually concern cases that are forwarded either to the accounting offices of PPC central services for actions and/or explanations, or to the competent stores when they are already involved in the case and their assistance is needed. Also, delays may occur in special cases that need further investigation due to the complexity of the issue and it is necessary to cooperate with other Departments involved (e.g. Legal Department, Information Technology Department).

Customer complaints focus on the following categories:

- Debt settlement
- Issues related to HEDNO
- Register of Agricultural Customers update
- Social Residential Tariff implementation

## 6.7. Social contribution/sponsorships – Relationships/dialogue with local communities



### Local communities development programs

€ 1.272 thousand for Compensatory/Public Benefit Works related to the production activity

2.1 million GJ of energy used for district heating of cities



### Company and employees initiatives and actions

€ 1.02 million allocated for rescue Archaeological Excavations at the Ptolemaida and Amyntaio mines

6,046 Primary Medical Examinations of vulnerable groups of the population in collaboration with the Doctors of the World

4,770 kilos of fruit were distributed by the West Macedonia Lignite Center

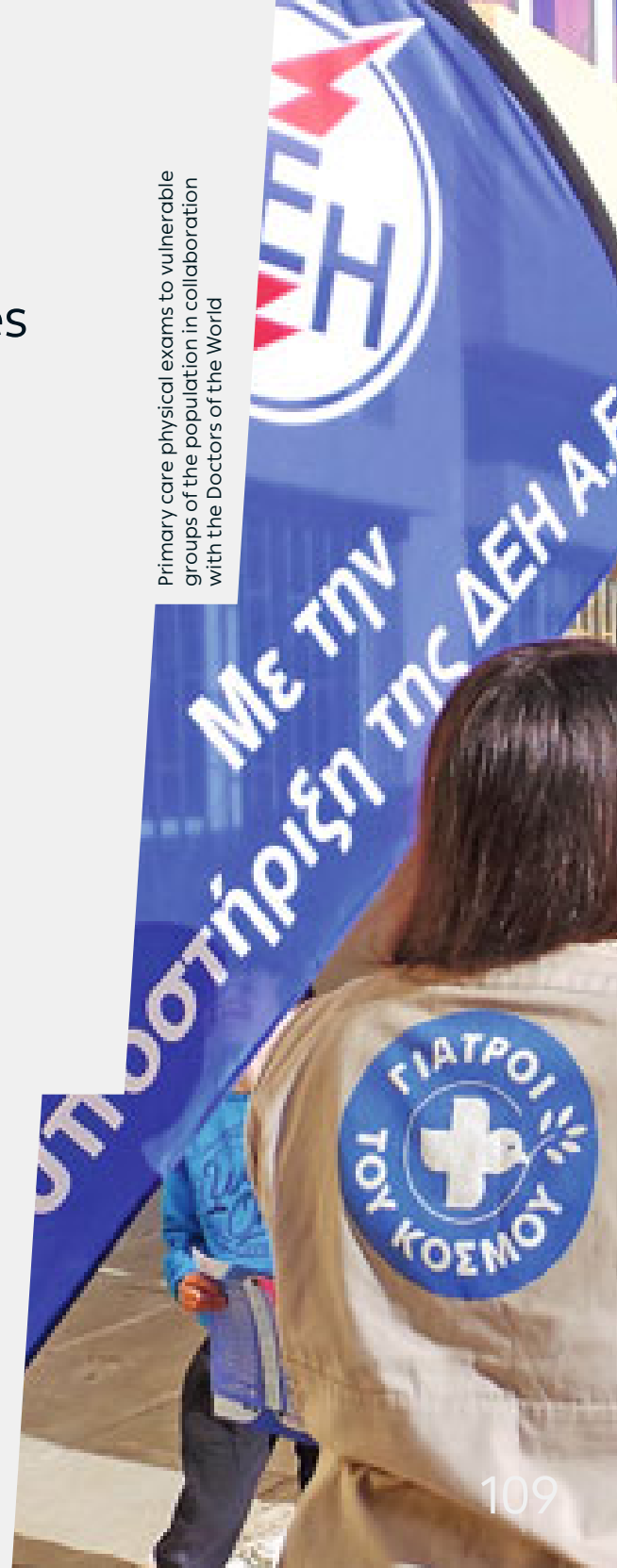
226 pupils/students completed an internship at PPC

> 1,600 people visited the historic exhibition: "How the Electricity Company was saved... a battle in the heart of Liberation" at Agios Georgios TPP

PPC, as an integral part of the society itself, supports with its presence the course of development and progress in Greece. The large dispersion of its activities all over the country and abroad has the consequence of contributing substantially to the multifaceted development of local communities. The management of the company's relations with the local community is systematic and essential, both in terms of strategy formulation and in terms of information. Informing the local community, as well as its participation in discussions on issues that may impact its activities from the creation of a new project remains the primary purpose of PPC. This is achieved through the continuous dialogue of its executives with the local communities.



Primary care physical exams to vulnerable groups of the population in collaboration with the Doctors of the World



### Compensatory/Public benefit projects

During the process of issuing the environmental terms for the projects implemented by PPC, the Ministry of Environment and Energy consult with the local bodies, where compensatory benefits/projects for the local community are determined. These are then incorporated into the joint ministerial decision, approving the environmental terms of the projects. The costs of social compensation related to the production activity for the year 2019, as analyzed in the table below, reach € 1.272 thousand.

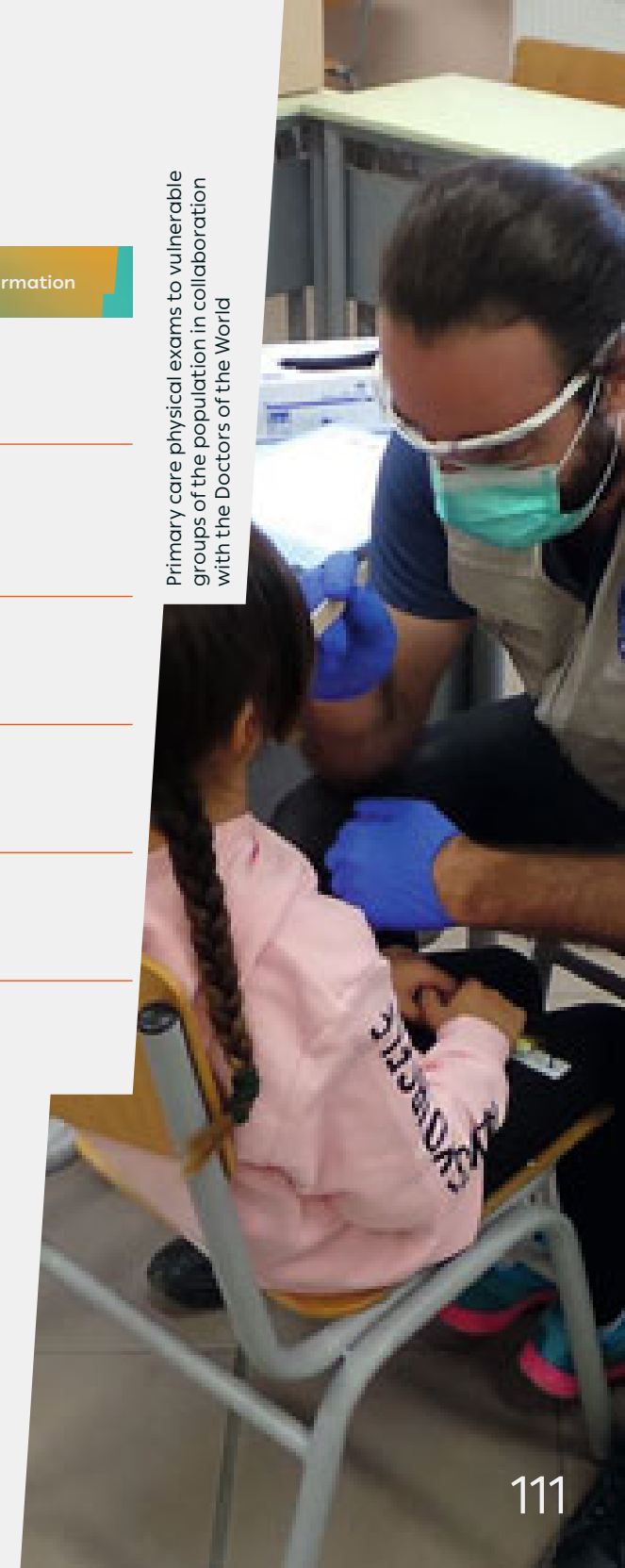
Compensatory/ Public benefits	Category	Project budget (‘000 €)	Expenditure 2018 (‘000 €)	Expenditure 2019 (‘000 €)	Additional information
Payment of expenditure to Tax Office of prehistoric and classical Antiquities	Contractual obligation	10,256.5	9.51	4.37	Conducting archeological works in the Hilarion area. Reciprocal projects of the Municipality Deskatis in the Hilarion area.
Partial financing of projects of the Municipality of Deskati in the prefecture of Grevena	Application of Environmental Terms	1,900	153.99	145.11	
Preparation of a study by the Western Greece Region	Donation/ sponsorship in kind	200.21	60.06	—	
Purchase of tires for fire trucks at the HPP Ladona	Compensatory - Corporate Social Responsibility project	1.21	1.21	—	
Ministry of National Defense General Staff Shed financing Rhodes camp	Compensatory - Corporate Social Responsibility project	60	20	—	
Municipality of Rhodes Enhancement of an old Italian building in Cultural Kattavia Center	Corporate Social Responsibility Project	420.00	—	25.51	
Municipality of Rhodes Kattavia sewerage network (pumping station, external networks, biological)	Compensatory - Corporate Social Responsibility project	402	5.86	62.43	
Municipality of Rhodes Kattavia sewerage network (internal networks)	Compensatory - Corporate Social Responsibility project	1,184	89.76	914.53	

Compensatory/ Public benefits	Category	Project budget (‘000 €)	Expenditure 2018 (‘000 €)	Expenditure 2019 (‘000 €)	Additional information
Municipality of Rhodes Electric lighting of the Gennadi municipal stadium	Compensatory - Corporate Social Responsibility project	91.59	85.74	—	
Municipality of Rhodes Pedestrian, asphalt paving and electric lighting of municipal roads in D.D. Soronis of the Municipality of Kameiros, Rhodes	Compensatory - Corporate Social Responsibility project	1,000	206.03	9.44	
Municipality of Aliveri Reconstruction of Zondos Square and PPC Avenue	Compensatory - Corporate Social Responsibility project	195.42	44.46	77.99	
Municipality of Aliveri Upgrading of Avlonari bazaar	Compensatory - Corporate Social Responsibility project	160	5.67	3.98	
Municipality of Aliveri Completion of Aliveri center renovation, first phase	Compensatory - Corporate Social Responsibility project	70.42	10.93	28.74	
<b>Total</b>			<b>693.22</b>	<b>1,272.11</b>	

In addition, projects and actions of the Hydroelectric Generation Department, are the following, to name just a few:

- Execution of the 7th cleaning of Lake Ladonas in collaboration with PPC/HPP Ladonas with the association of unions of the former Municipality of Kontovazaina, the Municipality of Gortynia and the Municipal Public Benefit Enterprise of Gortynia (DIKEG), on Sunday, September 29, 2019.
- Conducting the sanctification of the waters at the dam of the Ladonas HPP for the 22nd year, in collaboration with the Ladonas HPP and the Municipality of Gortynia, as well as at the regenerative lake of Agia Varvara, in collaboration with the Aliakmonas complex and the Municipality of Veria.
- Implementation by PPC, part of the Programme Contract with the financing of compensatory projects executed by the Municipality of Deskati.
- Disposal of stored aggregates from the Zervas tributary in the Region of Western Greece for the construction of the Agrinio - Karpenisi road.

Primary care physical exams to vulnerable groups of the population in collaboration with the Doctors of the World







Motorcross track  
Reuse of land in the West Macedonia  
Lignite Center

- Disposal of stored aggregates from the Zervas tributary to the Municipality of Agrinio for the construction of municipal projects.
- Temporary concession, with nothing in return, to the General Secretariat of Sports of the Ministry of Culture and Sports (YPPOA) of the right to use the construction sites of the former KEPSE (Project Design, Supervision and Control Team) of Stratos for the development of nautical activities.
- Allocation of space in the artificial lakes of Kremasta, Kastraki and Stratos for the performance of the religious event of sanctification of the waters.
- Guided tour of visitors (universities, schools, etc.) to the facilities of the HPPs of the Acheloos, Arachthos, Aliakmonas and Nestos complexes.

Respectively, the Lignite Generation Business Unit along with the Lignite Center of Western Macedonia, proceeded with a series of compensatory/public benefit projects:

- Maintenance, cleaning and operation of the green area of the park at the PPC Lignite Mines Monument in Ptolemaida.
- Provision of equipment and contractor for the cleaning works of natural vegetation and maintenance of the surrounding area of the Ptolemaida School of Firefighters.
- Installation of lawn and irrigation network in the surrounding area of the Ptolemaida Fire Department.
- Installation of turf and irrigation network in the surrounding area of the Ptolemaida Forestry.
- Irrigation network and lawn installation works in the surrounding area of the Voluntary Rescue Team of Ptolemaida.
- Installation of lawn and irrigation network in the surrounding area of the church Timios Prodromos in Voskochori of the Municipality of Kozani.
- Variation of the 2nd Old National Road Kozani - Ptolemaida (roadway) in the area of Pontokomi.
- Cleaning works of native vegetation and maintenance of the surrounding area in the chapel of the forest of Pontokomi.
- Preparation of a preliminary study of Ag. Christoforos - Karyochori.
- Planting in the area of the Municipal Department of Mavrodendri.
- Surface shaping, arrangement of burial sites and concreting of building blocks of the settlement of Mavropigi within the New Cemeteries of the Municipality of Eordea.
- Installation of constructed ossuaries of 45 places, in the New Cemetery of Ptolemaida.

#### District heating

PPC, through programs developed in collaboration with local municipalities and competent municipal companies, utilizes the heat produced by steam lignite power plants in Western Macedonia and Arkadia, and provides thermal energy, in the form of hot water, to meet heating needs, for urban use, in Kozani, Ptolemaida and Amyntaio. The cost of providing thermal energy with the method of district heating is significantly lower compared to other

conventional methods of heating. The provision of district heating services is a model of sustainable management as it is characterized by multiple benefits for all parties involved, most importantly the reduction of air pollution due to the avoidance of burning hydrocarbons and wood for heating, and the economic benefits derived for the local communities, due to reduced heating costs. In total, during the year 2019, 2.1 million GJ of energy were produced/used for district heating.

#### Relocations and forced expropriations

In cases where, for the construction of new power plants or for the expansion of the mines, the forced expropriation of areas or even the relocation of settlements is necessary, PPC follows specific procedures, in accordance with the Greek legislation. Specifically, L. 2882/2001 - Code of Compulsory Expropriation of Real Estate is being followed and, in addition, for the extensions of the Mines, the provisions of the Mining Code - legislative decree 210/1973 are being followed.

During the development of PPC mines in Western Macedonia, relocations have been carried out for the settlements of Kardia, Haravgi, Exochi, Komanos and Kleitos. The settlements of Mavropigi, Pontokomi, Pteleona and Kleidi have been expropriated and the beneficiaries have been compensated, while the local communities are in the process of relocation.

In the general context of land acquisition procedures, the Lignite Generation Business Unit (formerly the Mines Business Unit) has set up groups - on several occasions- consisting of its executives and lawyers, in order to negotiate with the residents of the mining areas regarding direct purchases. Such groups have been set up in the areas of Megalopolis Arkadia, Amyntaio and Kleidi, Florina.

In addition to the cost of the expropriation, PPC is assisting the residents, providing social work regarding infrastructure (networks, roads, etc.), public spaces and places of religion (churches, cemeteries, etc.).

#### Formation of rural areas and their concession to farmers

Within the general environmental planning, 45,000 restored acres are formed in rural areas and are conceded on a four-year lease at a symbolic price to farmers in neighboring areas to cultivate. The case of the western external deposit of Horemi is typical, for which a special study was prepared, in order to make, based on the proper management of agricultural land, all the necessary technical infrastructure projects (roads, lakes) and to form a smooth relief on the surfaces, suitable for agriculture and animal husbandry. The farms created in this way which are considered as "models", are conceded on annual leases for a symbolic price to farmers in the area.

#### Sponsors

PPC recognizes the needs of the areas in which it operates for a long time and responds with great sensitivity to them. Many of its activities focus on local communities around its mining and production facilities. At the same time, since its product reaches all over Greece, it implements actions in other parts of the country as well.



### Financial sponsorships

For 2019, PPC's financial sponsorships are analyzed in the following table and for reasons of comparability, the relevant information for 2018 is also included.

Thematic axis of sponsorship/donation	Sponsorship/donation amount 2018 (€)	Sponsorship/donation amount 2019 (€)
Environment/Education/Sports	160,830	509,894
Energy	182,517	59,776
Society	961,672	1,880,773
Civilization	516,993	81,914
<b>Total</b>	<b>1,822,012</b>	<b>2,532,357</b>

To name just a few, the financial sponsorships made by PPC in 2019 are the following:

#### Local Organization of Land Improvements (TOEB) of Hera - Kourtaki

The Local Land Improvement Organization (TOEB) of the region Hera - Kourtaki in the prefecture of Argolida, requested the financial support of PPC, in order to be able to complete the development of a modern and innovative irrigation system, which will lead to substantial energy and water resources saving.

The total project concerns the irrigation of 8,000 acres, corresponding to about 700 properties. The first phase, for the completion of which the financial support was requested, concerns the completion of the central pumping station, the management system and the irrigation network for 4,500 acres. The system will allow the controlled supply of water to the crops, based on the real climatic data of the area through a collective network. This possibility of irrigation allows the saving of water resources, as well as the saving of energy by comparing its application with the traditional way of irrigation, i.e. from the private wells of the farmers. With regard to water resources, limiting groundwater abstraction will reverse their quantitative and qualitative degradation. It is known that the conductivity of irrigation water in the area of Hera is prohibitively high (3,500  $\mu\text{S}/\text{cm}$ ).

The annual energy saving from the application of the system reaches 620 kWh/acre, therefore for the 4,500 acres, the saving reaches 2.8 GWh.

Specifically, the TOEB of Hera - Kourtaki requested funding from PPC for:

- the supply and installation of specialized software for the digital management/interconnection/processing of producers-farms-meteorological stations/land and other data required for the management of the irrigation system and the optimized water supply per acre, but also
- the necessary computers and peripherals required to install and operate the software.

Assistance in the completion of this irrigation system is important for PPC because it constitutes a real contribution from its part towards the creation and achievement of common goals and values with its customers, such as energy saving, environmental protection and the economic development and competitiveness of the Greek products.

#### Other financial sponsorships

At the same time, in 2019 PPC financially supported the following bodies:

- The Center for Technological Research (KTE) of Piraeus and Islands for informing primary school students about energy saving issues.
- The Panhellenic Athletic Association for the Physically Handicapped (PASKA) for the strengthening of the ping-pong department.
- The BEST (Board of European Students of Technology) of Patras for the training of students in new technologies.

Moreover, PPC, in collaboration with the Doctors of the World, implemented an extensive program of primary care medical examinations in vulnerable groups of the population, contributing substantially to the coverage of important health needs of society. The purpose of the screening program, was to provide primary medical care by sending a well-equipped and staffed mobile health unit to parts of the country and to groups of the population who either have objective difficulty accessing free preventive medicine or belong to vulnerable groups that need special care.

Finally, PPC supported a large number of cultural and sporting events in areas that are inextricably linked to its power generation activities, in order to contribute to the development of local communities, investing in the benefits of the wider area. At the same time, PPC continued to highlight the natural beauty and the development possibilities of these areas, through actions that strengthen the local economy and the environment.

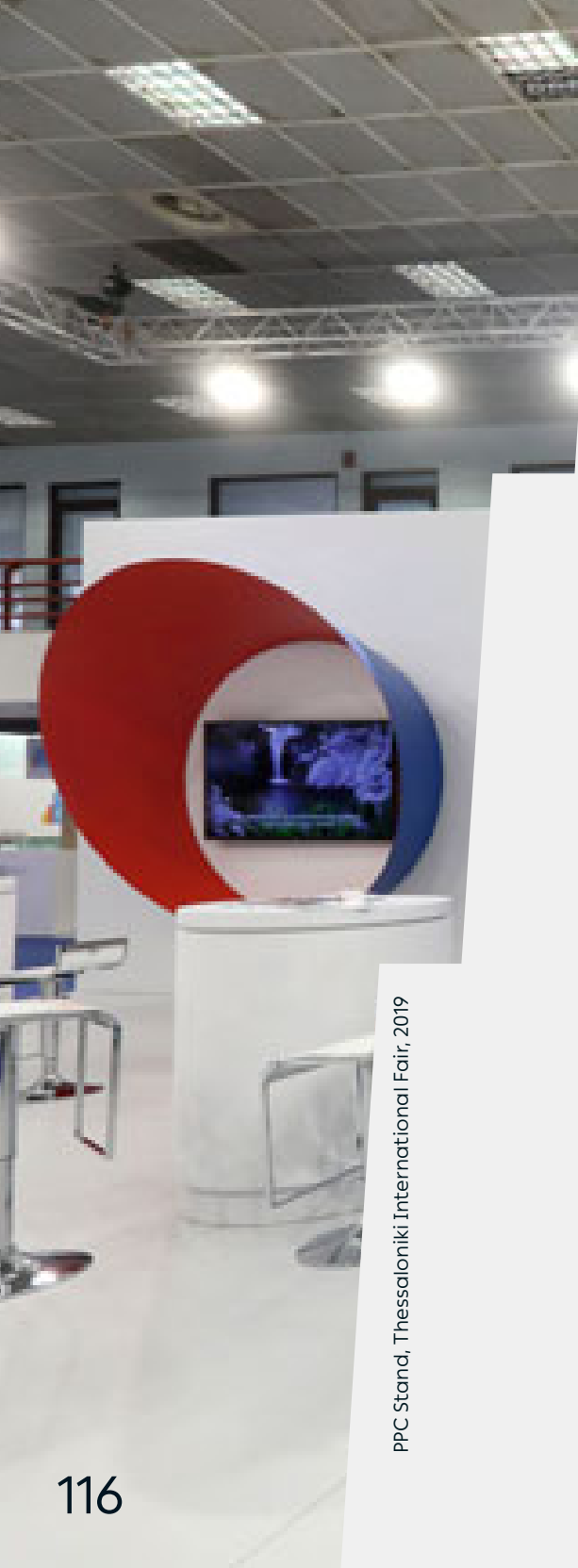
#### Donations in kind

In addition to financial sponsorships, in 2019 PPC offered donations in kind, to support local communities and organizations in the areas where it operates. PPC responds positively to requests from organizations that offer social work.

PPC, responding directly to the requests of the residents of the settlements, located in the areas in which it operates, implements extensive support projects, through the Lignite Generation Business Unit and undertakes active participation in dealing with natural disasters in the prefectures of Kozani, Florina and Arkadia. At the same time, it participates in the respective snow removal and fire safety teams of the respective Regional Units, by providing both mechanical means and its staff. In 2019, earthmoving machinery was

Cultivation of lavender - Land Rehabilitation in the West Macedonia Lignite Center





supplied to the Municipalities, adjacent to the lignite mines for the execution of works (opening, cleaning and maintenance of rural roads, formation of fire protection zones, supply of water tanks, etc.).

The West Macedonia Lignite Center offered the harvest of the experimental orchard located in the restored soils of the internal deposit of the Main Field Mine, to ecclesiastical, educational and charitable organizations of the local community. Specifically, 4,770 kilos of fruit were distributed, which were produced in the area of about 60 acres of PPC orchard, consisting of 4,500 kilos of apples and 270 kilos of cherries and 5,800 kilos of barley in foundations, local institutions, social groceries and employees. Transportation and paving works of 10,000 cubic meters of plant land were carried out from the deposition of the Pedio Kardia mine in the surrounding workshop area of the Lignite Center of Western Macedonia.

In addition, the Information Technology Department provided 24 complete computer units (central unit, screen, mouse and keyboard) and 4 monitors in the 2nd Primary School of Geraka, in the 4th Secondary School of N. Ionia, in the 5th High School of Ag. Dimitrios, at the 1st Primary School of Zacharo and in two NGOs, NEFES and HERMES.

At the 84th Thessaloniki International Fair, PPC, for the 8th year, supported the operation of a polyclinic, which it granted to the Doctors of the World, in order to offer free primary medical examinations. The specially designed space hosted 3 clinics, pathology (alzheimer and dementia), ophthalmology and pediatrics (counseling in relation to child development and nutrition), in which about 2,000 people were examined.

The Company, responding to the call of the Municipality of Athens, participated in 2019 in the initiative "Adopt Your City" undertaking the Christmas decoration of Chalkokondyli street (from Menandrou st. to George st.) and 3rd Septemvriou street (from Omonoia square to Agiou Meletiou st.). Neighborhoods located in the center, where thousands of people live, move and work every day, were illuminated for the first time. It is a conscious choice of PPC to change the appearance of two main streets during the festive days, which had remained far from the festive mood for years. At the same time, a sponsorship was given for the implementation of Christmas events in the Municipality of Eordea.

#### **Other social contribution initiatives**

##### **Cooperation with archaeological services**

According to the provisions of the Archaeological L. 3028/2002 "On the protection of Antiquities and Cultural Heritage in general" and the Circular of the General Secretariat of the Ministry of Culture and Tourism on "conducting rescue excavations on technical projects of third parties", PPC owes to take care of the protection of the archeological

findings, which are revealed during the progress of the lignite mining works. More in particular, the Company must finance the competent, as the case may be, Archaeological service for conducting rescue excavations. With the completion of the rescue excavations, the Archaeological Service assigns the area of interest to PPC and allows the continuation of the mining works provided that the latter will be carried out under the supervision of the competent Archaeological Service.

In this context, since 2003, rescue excavations have been carried out at PPC lignite mines in more than 20 archaeological sites, which have been financed in their entirety by PPC with more than € 70 million. In 2019, € 968,880 were allocated for rescue archaeological excavations at Ptolemaida Mines, as well as € 53,200.00 million for rescue excavations at the Field of Amyntaio Mine.

##### **PPC Historical Archive and industrial heritage**

The PPC Historical Archive preserves, collects, records, classifies and attributes to research, important archival units of the Company. It has set up and is constantly enriching the Archive of Oral Testimonies, promoting collective memory and revealing unknown aspects of the Company's history. It documents and highlights the industrial heritage of PPC (buildings, machines, tools), while contributing to the study of the history of technology in Greece. It collaborates with cultural and scientific institutions and bodies for the utilization of archives and of industrial heritage, while at the same time promotes joint cultural actions.

During 2019, various actions were carried out in order to promote and utilize the work of the Historical Archive:

- Publication of a collector's diary 2019 entitled "PPC: With the power of our people". The diary is dedicated to the Company employees, who gave substance to the great energy projects of the programs of the first period and constituted the driving force of the electrification of the country. At the same time, the rare images from the applications of electricity in the agricultural sector and the interconnections compose incomparably the society-PPC relationship.
- For the third consecutive year, the PPC Historical Archive presented the historical exhibition "Thus Electricity was saved... A battle in the heart of Liberation" at the Agios Georgios Thermal Power Plant. The exhibition during its operation (October 13 - November 29, 2019) welcomed 1,600 visitors, including students and teachers of primary and secondary education, researchers, and the general public.
- The Historical Archive welcomed the donation of the Archive of George K. Papakonstantinou by his granddaughter Mrs. Iro Diamantourou. The original drawings, documents, photographs, objects and rare books of the engineer Georgios K. Papakonstantinou, who is associated with the first major projects of PPC, constitute an



important acquisition for the PPC Historical Archive. This File has been sorted and is now available for research.

- Participation and financial support of PPC for the second year (golden sponsor) in the research program "The Greek Revolution 1821: Digital Archive" of the Research Center for the Humanities, held in view of the completion of 200 years, since the Revolution of 1821. The project will have been completed by early 2021, delivering to the general public a Digital Repository, which will include material from all archival bodies, libraries and museums of the country. The General Archives of the State, the National Library, the National Research Foundation, the Benaki Museum, etc. participate in the Program.
- Provision of archival documents from the Historical Archive for the needs of the central thematic illustration of the cultural publication *Epilogue* for 2019. The rare iconographic material captures snapshots from the electrification works of the country. *Epilogue* is the most valid publication for the review of cultural events in Greece and collaborates with reputable personalities of the country's letters and arts.
- Provision of historical archival material, interviews and recordings from PPC factories throughout Greece, for the production of the historical documentary entitled "The electrification of Greece" of the Cosmote History channel.
- Consistent support of the scientific research by providing archival material to researchers and to Company Units.
- Cooperation with the Department of History and Philosophy of Science of the National and Kapodistrian University of Athens for the realization of internships of its students in sections of the Historical Archive.
- In the context of highlighting the industrial heritage of the Company, the PPC Historical Archive carried out, inter alia, the following actions:
  - Collaboration with the Onassis Foundation for hosting the interactive play "The Search for Power" by Tania El Khoury, within the framework of the 6th International Fast Forward Festival. The play, which combines art with the history of electricity and the study of archives, took place at the engine room of Agios Georgios Power Plant in Keratsini (May 10-12, 2019).
- Representation of PPC on the Board of the Greek Section of the International Commission for the Preservation of Industrial Heritage (TICCIH).

#### PPC Central Library



**79** branches throughout Greece



**75** magazine titles



**10,000** book titles



**rare** studies dating back to PPC's establishment

The Central Library of the Training Department, with 79 Branches throughout Greece, is an important information center, with about 10,000 titles of books and 75 titles of magazines, as well as rare studies, which date back to the establishment of PPC, and newspapers.

Within the framework of its services, the actions that are developed are the following:

- Purchase and distribution of books, journals, studies, as well as the purchase of Regulations and Standards (IEC, ASTM, ISO, etc.).
- Electronic management of selected foreign language magazines, with access through the Company's internal electronic network (Intranet).
- Electronic submission of pre-selected journal articles to user groups per interest "The Library in your E-Mail".
- Access to national and international databases, through the National Documentation Center.
- Permanent and temporary lending of books and magazines.
- Internet connection with other Greek Libraries.

The renovated and well-designed space of the Central Library is also used for committee meetings, presentations and for the implementation of educational programs (seminars). The Central Library operates on loan to the Company's personnel, while the rest of the public (students, university professors, scholars, etc.) can study the material they are interested in, in the Library's reading room and photocopy part of it. To name just a few, the material requested in 2019 was the following:

- Books: 30 existing and 65 new
- Regulations: 150 existing and 150 new
- Magazines: 105
- Studies: 15
- Newspapers: 3 existing and 5 new

The material of the Central Library consists of 10,000 book titles, which cover the following topics:

- Energy, electrical, legal, management, literature, IT, etc. Complete set of technical specifications IEC (International Electrotechnical Commission) until 2012 and since then part of it, set of German specifications VDE (Verband Deutscher Elektotechniker), as well as ASTM series.
- Studies of technical and financial projects prepared by the Company's Departments.
- Encyclopedias and dictionaries.
- Audiovisual material.
- 150 titles of periodicals and online.
- Newspapers.
- Furthermore, the Central Library includes a rare series of book-bound magazines in volumes and series of IEEE (Institute of Electrical and Electronic Engineers).

The Central Library of PPC is a member of the Library Network of the National Documentation Center (ECB) since 1996, consisting of 215 Libraries. The Library, through its participation in the Library



Network of the National Documentation Center, enables the members of the network to order online photocopies of articles from magazines that the Library has in its collection, and at the same time to request photocopies of articles from the collections of other books of network members.

#### PPC Private Vocational Training Energy Institute

In October 2018, the courses of PPC's Energy Institute started with the following specialties:

- Internal electrical installation technician
- Automation technician

Courses take place at the School of Accelerated Cardiac Education (inside Kardia TPP) at the 14th km of Kozani - Ptolemaida.

In 2019, 6,755 manhour trainings were conducted in the field of "Technician of internal electrical installations" and a further 6,222 manhour trainings took place in the specialty: "Automation Technician". It is worth mentioning that within the framework of the social contribution of the Company, the students are provided with free transfer from Kozani and Ptolemaida to the facilities of the Institute and vice versa. In 2019, the PPC Energy Institute organized or participated in the following actions:

#### 2nd Volunteering Day Andronikos

PPC, through the Training Department and the PPC Energy Institute, participated in the 2nd Volunteering Day "Andronikos", which took place on Monday, May 13, 2019 in Ptolemaida. In a special "kiosk" of the Company, information was provided on issues of protection from electric shock and energy savings. The event was attended by the students of I.I.E.K. PPC Energy Institute and executives of the Training Department.

#### Donation to EKAB (National Emergency Aid Centre) of Kozani

In May 2019 at the premises of the PPC Energy Institute, an event was held, in collaboration with the Corporate Affairs and Communications Department and the Training Department of PPC, during which PPC announced its intention to donate a BLS/AED adult educational manikin for basic CARPA (CPR) and a TrainerAED educational defibrillator to the EKAB of Kozani to cover its educational needs.

In this way PPC S.A. expresses its warmest thanks to the EKAB and especially to the Kozani Branch, which has provided the Company important training services free of charge in recent years. The event was attended by representatives of EKAB Kozani, executives of the Corporate Affairs and Communications Department and the Training Department of PPC, as well as the students of PPC Energy Institute. This was followed by training-information on the topic: "Basic Life Support" by EKAB Kozani to the students of the Energy Institute.

#### "Human Consciousness Training (Safe Road Behavior Day)"

The PPC Energy Institute held events on "Education of Human Consciousness (Day of Safe Road Behavior)" with Mr. Iaveris. The events took place in Kozani on Wednesday 25 September in the "Filippos" Hall (Officers' Club) and in Ptolemaida on Thursday 26 September at the Music School. The aim of the events were to inform, raise awareness and educate our fellow citizens, in order to improve the road culture, mentality and culture (i.e. the consciousness of people during their movement in the tragically dangerous road environment) and consequently, the minimization of accidents.

For the academic year 2019-2020, the PPC Energy Institute, announced two additional new specialties, providing more options to young people in the area which were:

- Renewable Energy Sources Installation Technician
- Executive of Administration and Finance

#### "Enlightening the Woman" - PPC Event for Women's Day

In order to honor and recognize the important and multifaceted contribution of the female employees to the Company, PPC organized, for the 2nd year, an event dedicated to Women's Day on March 7, 2019 entitled "Enlightening the Woman". Inside the crowded Municipal Music Theater Maria Callas - Olympia, this special event aimed to reward and highlight the female employees in the power plants and PPC Stores in the region.

#### Internship for students and pupils



PPC offers the opportunity to students of Higher Education Institutions (HEIs) and Technical Educational Institutions (TEI), as well as to students enrolled in the programs of the Greek Manpower Employment Organization (OAED) to carry out their internship in the units of the Company. During 2019, 38 University students were employed in the Company within the framework of the program "Education and Lifelong Learning" which is funded by the NSRF, 100 university students (former TEI), mainly through the subsidy program from OAED and 58 students of EPA.S (Apprenticeship School) of OAED. Furthermore, 30 students graduating from Vocational Senior High Schools (EPAL) were placed in Units of the Company for a nine-month "apprenticeship" while 31 completed the "apprenticeship" within the year.



## 6.8. Corporate Volunteering Initiatives

With the support of its employees, PPC organizes volunteer initiatives having a social character every year. In 2019, continuing a tradition that now stretches many years, PPC's employees organized voluntary blood donation initiatives, through their trade unions. More specifically, via the unions/associations PASYP, EDOP, SPARTAKOS, and ETE more than 1,100 blood units were collected.

In 2019, 3 social solidarity initiatives were carried out:

- Fundraising, by placing money boxes in the workplaces of employees at Linoperama TPP, which was distributed to children with serious health problems supported by "The Smile of the Child",
- Donation from PPC's employees in Agrinio, for the purchase of items from the Christmas bazaar of the Pan Hellenic Parents Association of Children with Cancer "FLOGA", and
- PPC's employees purchased items from the Bazaar of Psychosocial Rehabilitation Hostel "ODYSSEUS".

Also, in 2019, PPC Electricity Generation Association "SPARTACUS" organized (in collaboration with PPC) with great success the 11th Panhellenic Road Race "Lignite Memories", with the participation of hundreds of athletes (about 700) from all over Greece. The part of the voluntary action of the association in relation to the children is also important, as it participates in annual events, where it grants bicycles while in collaboration with the traffic police and the Municipalities of each area, it supports actions related to traffic education. Finally, significant support was provided by the association to activities developed by other associations and organizations (the Association of multi-child parents, the Special School to name just a few), which are active in the area, offering important work and supporting society as a whole.



Road race "LIGNITE MEMORIES"





Servia Bridge,  
Artificial Lake of Polyfyto,  
Aliakmon HPP Complex

# 7. Corporate Governance

## 7.1. Reinforcing corporate governance, business ethics and regulatory compliance GRI 102-16 GRI 103-2



Corporate Governance is a system of management and control of the societies anonymes. It is a set of structures, principles, rules, procedures and practices based on which the continuous improvement of the Company's efficient operation for the sake of its shareholders and all parties having legitimate interest in its operation, the enhancement of the long-term value of the Company and in general the safeguarding of corporate interests are pursued.

Adherence to the principles of corporate governance is a key commitment and priority for PPC. The Company, driven by optimal organization, management and operation, as well as increased transparency in its relations with shareholders and overall the preservation of corporate interest, has established and implements a Corporate Governance Code, which has received the approval of the Board of Directors. The Code defines the framework of principles and procedures on which the Company's Corporate Governance system operates in matters of management, shareholders, internal control system and risk management.

The Corporate Governance Code is posted on the PPC's website [www.dei.gr](http://www.dei.gr) and all the principles and practices of the Company's Corporate Governance are available in the Annual Financial Report 2019.



### Governing bodies GRI 102-18

The General Meeting is the supreme authority of the Company and shall have the right to adopt resolutions on all matters concerning the Company, unless otherwise stipulated in the Articles of Incorporation. Apart from the General Meeting, the Governing Bodies of the Company shall be:

- the Board of Directors,
- the Chief Executive Officer, and
- the Executive Committee.

### Board of Directors

The Board of Directors is the supreme governing body of the Company. It formulates the Company's development strategy and policy, as well as supervises and exercises control over the management of its property. The Board of Directors shall approve, upon recommendation of the Chief Executive Officer:

- the Strategic Plan, which determines the strategic goals for achievement of the Company's objectives,
- the Business Plan of the Company, of three to five year duration, which specifies the goals of the Strategic Plan for each year of its duration,
- the methods for the implementation of the Strategic Plan and the Business Plan for each year of their duration.

Among other responsibilities, the Board of Directors also monitors the implementation of the Strategic Plan and the Business Program.

The Board of Directors consists of 11 members, who are elected as follows:

- Nine (9) members, including the Chief Executive Officer, elected by the General Meeting of the shareholders of the Company. The Board of Directors or the General Meeting of the shareholders, shall elect from among the said members its Chairman and Vice Chairman.
- Two (2) members representing the employees of the Company. These members shall be elected by direct, general ballot and by means of the proportional representation system within a time period of two (2) months from the relevant notification to the most representative trade union (ASOP) of the Company.

On 31.12.2019, the Board of Directors consisted of 10 men and 1 woman, 3 of them between 31-50 years old and 8 of them aged over 50.

Name	Post	Executive	Non-executive	Independent	Audit committee	Remuneration committee	Committee for the examination of candidate members of the BoD	Corporate social responsibility supervision
Stassis Georgios	Chairman of the BoD and CEO	✓	–	–	–	–	–	–
Papadimitriou Pirros	Vice President	–	✓	–	–	✓	✓	–
Karakousis Georgios	Deputy CEO	✓	–	–	–	–	–	–
Venieris Georgios	Member	–	✓	✓	✓	–	✓	–
Vlassopoulos Anastasios	Member	–	✓	✓	–	–	–	–
Doxaki Despoina	Member	–	✓	✓	✓	✓	–	✓
Theodoridis Stefanos	Member	–	✓	✓	–	–	–	–
Kardamakis Stefanos	Member	–	✓	✓	✓	✓	–	–
Paterakis Alexandros	Member	–	✓	–	–	–	–	–
Karaleftheris Pantelis	Member and employees representative	–	✓	–	–	–	–	✓
Fotopoulos Nikolaos	Member and Employees Representative	–	✓	–	–	–	–	–

### Chief Executive Officer

The Chief Executive Officer of PPC is elected by the General Meeting of shareholders and is the highest ranking executive body of the Company for a three-year term of office. Among others:

- Heads all its services and directs their work.
- Decides on the further organization of the Company, in the context of the Articles of Incorporation and the relevant decisions of the Board of Directors.
- Makes the necessary decisions pursuant to the provisions governing the operation of the Company, the approved plans and budgets, the strategic plan, the business plan and the terms of the Management Contract he/she has entered into with the Company pursuant to Article 16 of the Articles of Incorporation.



- Represents the Company within the limits of his duties subject to the present Articles of Incorporation or the resolutions of the Board of Directors and may authorize or empower other persons, members of the Board or low-ranking or high-ranking executives of the Company, as well as any kind of PPC employees, to represent him/her.

#### **Executive Committee**

The Executive Committee (EC) shall be composed of the Chief Executive Officer who acts as its Chairman, the Deputy Chief Executive Officers, if any, and the Chief Officers. The General Counsel of the Company may participate in its meetings, at the discretion of the Chief Executive Officer. The Executive Committee operates within the framework of the decisions of the Board of Directors, the Articles of Incorporation and PPC Regulation of Operations, ensuring the necessary collective handling of administrative and operational issues of PPC, as well as the consistency in its operation.

#### **Board of Directors Committees**

At Board level, the Audit Committee, the Remuneration Committee and the Nominations Committee have been set up, in compliance with the applicable legislation for Corporate Governance, as well as in line with the best practices of corporate governance.

#### **Audit Committee**

Pursuant to the provisions of article 9 of L.4643/2019 the Audit Committee consists of five members elected by the General Meeting as follows:

- Three (3) members at least, by virtue of article 44 of L. 4449/2017, which can be members or non-members of the Board. In general, any combination can be accepted, provided that there is at least one Board member. These members shall be in their totality non-executive members of the Board and in their majority independent of the Company within the meaning of the provisions of L.3016/2002 (NOG A' 110), while at least one (1) shall be chartered auditor-accountant, inactive or retired, or shall have sufficient knowledge of accountancy and auditing.
- Two (2) more members, by virtue of article 9 L.4643/2019, elected from a list of persons with proven experience in the field of works, supplies and services contracts, which shall be independent of the Company within the meaning of the provisions of L.3016/2002 (NOG A'110).

The members of the Audit Committee have the following duties and obligations:

- The follow-up of the financial information procedure and the submission of recommendations or proposals for ensuring its integrity.
- The follow-up of the efficient operation of the internal audit systems, the quality assurance system and the risk management system, as well as the follow-up of the proper operation of the Internal Audit Department, in particular with regard to the Company's financial information, while preserving its independence.

- The follow-up of the process of compulsory audit of stand-alone and consolidated financial statements and the process of informing the Board of Directors on its results, by means of explaining its contribution to the quality and integrity of the financial information and the role of the Audit Committee in the said process.
- The review and follow-up of issues related to the objectivity and independence of chartered auditors-accountants or the audit firms, particularly with regard to other non-audit services they provide to the Company and its subsidiaries.
- The responsibility for the selection process of chartered auditors-accountants or audit firms.
- The audit and the monitoring of the proper implementation of the Works, Supplies and Services Regulation of the Company on a random basis.
- The submission of an annual report to the Board of Directors on the efficiency of the awarding of works, supplies and services contracts, based on specific indices, aiming to enhance efficiency, reduce relative risks and link the Purchasing function with corporate strategy and policies.
- The recommendation to the Board of Directors for amendments to the Works, Supplies and Services Regulation and in general for measures to improve the efficiency of the Procurement operation.

#### **Remuneration and Recruitment Committee**

Since 23.12.2019, the date of amendment of the Company's Articles of Incorporation and of integration of the provisions of L. 4643/2019, the Remuneration Committee was transformed into a Remuneration and Recruitment Committee consisting of three (3) non-executive members of the Board, within the meaning of L.3016/2002, as applicable. The term of office of its members is three years and may be renewed only once. Moreover, it may be extended ipso iure pursuant to article 85 par. 1 item (c) of L.4548/2018, until decision-making by the first Ordinary General Meeting to be held following its expiration, and terminates when losing in any way whatsoever the capacity of Board Member.

#### **Committee for the Examination of Nominations to the Board of Directors**

Until December 22, 2019, a Committee for the Examination of Nominations to the Board of Directors operated in the Company upon decision of the Board of Directors, for the examination of the nominations for membership on the Board of Directors. The said Committee examined any impediments or incompatibilities as well as the criteria of independence of the Board members (especially in the event of appointment of Independent Members) pursuant to L.3016/2002 and L. 4548/2018, as applicable.

On December 22, 2019, the Committee for the Examination of Nominations to the Board of Directors consisted of Mr. G. Venieris (Independent - Non Executive Member of the Board of





Directors) and Mr. A. Economou (General Counsel, Chief Legal Affairs and Corporate Governance Officer), while Mr. D. Tzanninis, who was appointed as member of the Committee on 14.5.2019, resigned from the position of Board Member and consequently from the Committee on 17.9.2019. Since 23.12.2019, date of amendment of the Articles of Incorporation of the Company, the Committee for the Examination of Nominations to the Board of Directors was renamed to Nominations Committee and thereafter consists of three (3) members, independent members of the Board in their majority.

Pursuant to par. 5 article 9 of the Articles of Incorporation, the Committee examines any impediments or incompatibilities as well as the criteria of independence (especially in case of appointment of Independent Members) for all nominations for membership on the Board of Directors of the Company submitted in accordance with L.3016/2002 and L. 4548/2018, as applicable. Specifically, the said Committee examines on one hand for all new members the existence of any conflict of interest, which may not be lifted and on the other for the Independent Members, all evidence provided for in the applicable legislation of corporate governance and leading to a dependency relationship with the Company or with persons associated with the Company. Moreover, the Committee evaluates periodically the size and composition of the Board of Directors and submits proposals on the diversity policy to be adopted by the Board of Directors and in general on the implementation of the provisions of the relevant legislation, as applicable each time, the management contract and its compliance control (such as PPC Operational Program and Financial Performance Monitoring Indicators in the Corporate Governance Code).

#### **Committee for the GHG emissions allowances trading**

It is noted that the Board of Directors revoked its previous decisions on the establishment of a committee consisting of its members and having the following duties:

- a) monitoring of the implementation of its decisions on the strategy of greenhouse gas emission allowance trading and the observance of the established procedures,
- b) the functional policy of greenhouse gas emission allowance trading, and
- c) the briefing to the Board of Directors on the transactions executed.

In parallel, the Board of Directors authorized the Chief Executive Officer to appoint the members of the Committee and determine their respective duties. By decision of the Chief Executive Officer, three (3) Chief Officers of the Company were appointed as members of this Committee.

#### **CSR supervision**

The Board of Directors proceeded to the appointment of two (2) of its members to jointly supervise the operation of the Corporate Social Responsibility (CSR) Section of PPC S.A. and submit an annual report to the Board of Directors.

#### **Internal Audit Department**

PPC has an Internal Audit Department that reports directly to the Board of Directors and is supervised by the Audit Committee. The Internal Audit Department's mission is to ensure that all PPC business risks are audited in the same way. It controls and evaluates the implemented from the Company Internal Audit System, with respect to its competence and effectiveness, by submitting proposals aimed towards its continuous improvement.

The Internal Audit Department, in accordance with the Company's Articles of Incorporation, inter alia, controls, evaluates and submits proposals regarding the Company's exposure to fraud and existing fraud detection and prevention methods.

The Internal Audit Department's annual audit schedule is drawn up by identifying, updating and assessing PPC's operational risks and taking into account the Company's strategic goals, as well as all developments relevant to the environment in which it operates. The audit schedule is submitted, through the Audit Committee to the Board of Directors for approval and includes compliance audits, administrative, financial, special audits and audits in Information Systems.

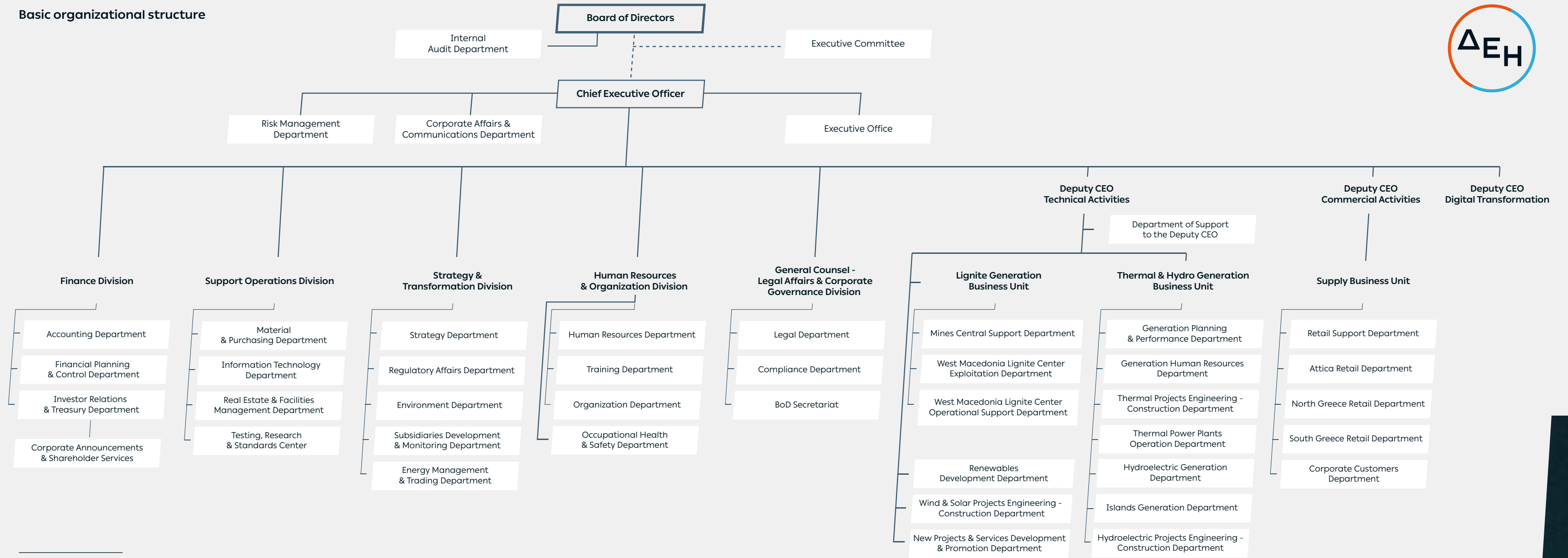
#### **Compliance Department**

PPC is currently facing significant changes both in the business environment in which it operates, and in the regulatory framework governing the liberalized electricity market.

Considering the above, and acknowledging the need to adapt to a new business environment, which is developing internationally with the issuance of new necessary regulations and corporate governance codes, the Company proceeded to the reorganization of the Compliance Department (established in 2017) and its staffing is expected to be completed by the end of 2020. The aforementioned Department intends to supervise the observance of the legal and regulatory instructions, as well as the Regulation of the Company's Staff Regulation. Moreover, it is responsible for advising the various business units on possible systemic problems that occur in business operations and may expose the company to serious communication, reputational and financial risks, while at the same time is responsible to establish a culture of compliance among executives and employees. In order to achieve this goal, the Company, through the Compliance Department, has already prepared the "Code of Ethics" which is available in its website and proceeds to the preparation of the "Ethics and Compliance Program" based on the international best practices, principles and rules. It also plans to establish communication procedures on issues of Compliance and Business Ethical Behavior, as well as the creation of an appropriate channel for submitting complaints and non-compliance reports in general, in collaboration with the "Transparency International-Greece".

As per above, the Company focuses on its commitment to establishing a business culture that not only respects and complies with regulations and laws, but also enhances its value, ensuring, thus, its respectable reputation and reliability.

Basic organizational structure



\* Within 2020 the organization chart was modified and is available on the Company's website <https://www.dei.gr/el/i-dei/i-etairia/organwtiki-domiapr2020>.

### Administrative organization

In 2019, the following organizational changes were made to PPC:

- The Division of Legal Affairs and Corporate Governance was established, in which compliance issues were grouped, as well as operational issues of the Board of Directors.
- The (a) Mines Business Unit, (b) Generation Business Unit and (c) Business Development Division were abolished and two new Business Units were established the (a) Lignite Generation Business Unit and (b) Thermal and Hydro Generation Business Unit. Within the first the mines and lignite power plants were grouped, while in the second the other thermal power plants (including gas and oil on the islands) and the hydroelectric power plants.

### Conflict of interest

In order to avoid conflicts of interest, several procedures are applied, through which the prevention of cases of conflict between the interests of the members of the Board of Directors, the executives and the other employees of PPC is ensured. Details on the prevention of conflicts of interest are included in the Annual Financial Report 2019.

### Shareholder Structure GRI 102-5

On 31.12.2019, the share capital of the Company currently amounts to five hundred seventy-five million three hundred sixty thousand euros (€ 575,360,000), divided into two hundred thirty-two million (232,000,000) common registered shares of a nominal value of two euros and forty-eight cents (€ 2.48) each.

Shareholder Structure (31.12.2019)	Share (%)
Hellenic Corporation of Assets and Participations S.A. (HCAP) <sup>1</sup>	34.12%
Hellenic Republic Asset Development Fund (HRADF) <sup>1</sup>	17.00%
Single Social Security Institution (EFKA) and TAYTEKO/TEAPAP-PPC <sup>2</sup>	3.93%
General public and institutional investors <sup>3</sup>	44.95%
<b>Total</b>	<b>100%</b>

1. On 8 April 2014, the Greek Joint Ministerial Committee for Restructurings and Privatizations decided the transfer, without consideration, of 39,440,000 ordinary shares with voting rights (corresponding to 17% of the existing share capital of PPC S.A.) by the Hellenic Republic to the HRADF, pursuant to the provisions of L. 3986/2011. On 9 April 2014, the transfer of said shares by the Hellenic Republic to the HRADF was effected, following execution of an over-the-counter transaction and was announced on April 11, 2014. A transfer of 79,165,114 PPC shares (namely 34.123%) by the Greek State to the HCAP (in which the Hellenic Republic holds 100% of the shares and voting rights) was completed on 20 March 2018, by law and without consideration, according to par. 20, article 380 of L. 4512/2018, as par. 1 of article 197 of L. 4389/2016 was amended. Taking into consideration that the HRADF is HCAP's subsidiary, the total percentage of the Hellenic Republic remains indirectly at 51.123%.

2. On 06.03.2018 the transfer of shares of the integrated insurance agencies into the Greek Single Social Security Institution (EFKA) was completed.

3. This includes "Silchester International Investors LLP" holding of 23,010,805 shares or 9.92% of PPC voting rights, as of 11.12.2019, in its role as manager of investments of its following clients: Silchester International Investors International Value Equity Trust, Silchester International Investors International Value Equity Taxable Trust, Silchester International Investors International Value Equity Group Trust, Silchester International Investors Tobacco Free International Value Equity Trust and The Calleva Trust.

On 31.12.2019, PPC was not aware of any shareholders, other than the HCAP, HRADF, and the Silchester International Investors LLP, which held directly an amount greater than or equal to 5% of its share capital. More information is available in the 2019 Annual Financial Report.

### Holdings in subsidiaries

The direct subsidiaries of PPC -on 31.12.2019- are as follows:

1. PPC RENEWABLES S.A.
2. H.E.D.N.O. (Hellenic Electricity Distribution Network Operator S.A.)
3. PPC FINANCE PLC
4. PPC BULGARIA JSCo
5. PPC ELEKTRİK TEDARİK VE TICARET AS
6. PPC ALBANIA
7. EDS DOO SKOPJE
8. Lignitiki Melitis S.A.
9. Lignitiki Megalopolis S.A.

### Other important issues on Corporate Governance

#### Personal Data Protection

In 2019 PPC updated the Personal Data Protection Policy, which is controlled by the Information Systems, aligning its procedures with the General Data Protection Regulation (GDPR 679/2016). The purpose of the Policy is to establish the basic principles and rules, concerning the protection of personal data processed by the Information Systems, as they are defined by the applicable legislation.

More specifically, the Policy provides:

- the definition of personal data,
- the way that PPC collects, uses, discloses and maintains personal data,
- the compliance of employees and third parties with the regulatory requirements.

#### Briefing on the employees' personal data kept by the Company

The Corporate Publications Portal provides information about the Personal Data of the employees that the Company keeps as Data Protection Officer (DPO). The briefing includes:

- The categories of personal data that the company collects and processes.
- The way PPC collects employees' personal data.
- The reason why PPC collects and processes employees' personal data.
- The persons to whom PPC discloses and / or transmits the personal data of the employees.
- The time period that PPC keeps the personal data of the employees.
- The ways that the protection of employees' personal data is ensured.
- The rights of employees, regarding the processing of their personal data by PPC.
- The transfer of personal data to third countries.
- The way employees can exercise their rights.
- The communication of employees regarding their personal data.

### Briefing of customers on personal data

On PPC's website, customers can learn about the personal data protection. The information includes:

- The categories of personal data collected and processed by PPC.
- The way that PPC collects customers' personal data.
- The reason why PPC collects and processes its customers' personal data.
- The persons to whom PPC discloses and/or transmits its customers' personal data.
- The time period that PPC maintains the personal data of its customers.
- The way that PPC ensures the protection of its customers' personal data.
- The rights of customers, regarding the processing of their personal data by PPC.
- The transfer of personal data to third countries.
- The way customers can exercise their rights.
- The communication of customers regarding their personal data.

In 2019, PPC issued the 2nd Issue of the Permanent Processes' Directive for the security of Information Systems. PPC updated the Issue in accordance with the General Data Protection Regulation (GDPR). The Processes' Permanent Instructions stipulates:

1. The corporate policy, the main principles and the process of managing the data protection issues, during the operation of the IT applications and the information systems of the company.
2. All involved -directly or indirectly- Business Units and Bodies.
3. The specific competencies and obligations of the above Business Units and Bodies.

Both the Permanent Guidelines for Operational Procedures and the Security Policies apply to all IT applications and information systems of the Company, as well as to any kind of corporate information which is entered, created, distributed, processed and ultimately stored in them. They are addressed to all employees, as well as to third parties, who make use of the above applications and systems and of the electronic services of PPC in general. The Policies are posted on the Corporate Publications Portal.

The purpose of the Permanent Guidelines for Operational Procedures is, within the framework of the legal, regulatory and other obligations of the Company, to ensure:

- The confidentiality, integrity and availability of corporate information, through the effective management of the risks from which they may be threatened.
- The unimpeded operation of its information systems, through the application of appropriate security mechanisms, and the protection and retrieval of critical corporate information, through the adoption of the necessary measures to prevent, deter and correct any harmful events.

In order to continuously improve the level of information security and data protection, PPC implements a critical database encryption, a Security Incident Event Management (SIEM) and an information security management system according to the ISO 27001 standard.

The Data Protection Policies, which are in line with the security standards of the ISO/IEC 27000 group of standards, have been updated in order to:

- Adapt to the General Data Protection Regulation (GDPR).
- Settle email issues.
- Define the acceptable use of corporate workstations.

Within 2019, PPC started implementing the organizational change of the PPC Data Protection Department, which is expected to be completed within 2020. Its main objective is to monitor the Company's compliance with the General Data Protection Regulation (GDPR) and the provisions of the law, including the ongoing awareness and training of employees involved in processing operations, and related controls.

### Information Systems Security

The Information Technology Department, in order to protect the information systems from any kind of violations, implements:

- Perimeter protection systems (firewall).
- Email protection systems.
- Malware protection systems of the final workstations.
- Security incident monitoring systems and specialized personnel to deal with them.
- Infrastructures and systems for the implementation of vulnerability control and intrusion testing on its electronic systems.
- Measures to ensure the high availability of electronic systems.

Through the above services, more than four major attacks were prevented, on the perimeter infrastructure and on PPC website, one of which had created a loss of availability for a short period of time.

PPC also holds an Authorized Economic Operator (AEO) license with a certification of the security of its information systems by the General Secretariat of Information Systems. The AEO license provides various privileges and benefits in conducting the Company's customs transactions (such as energy imports) and offers a substantial competitive advantage to certified/trusted economic operators over other economic operators nationally and internationally.

### Our performance GRI 103-3 GRI 205-3 GRI 206-1 GRI 307-1 GRI 419-1

Compliance with the applicable legislation and other regulations lies at the very core of PPC's values, in relation to all its activity. However, due to PPC's size and scope of its operations, various relevant issues arise from time to time.

A graphic on the right side of the page features a central box with the text "GDPR" in large, bold, white letters. Above the box is a small icon of a person with a checkmark. Below the box is a large, stylized number "1". The background is a dark blue with a faint world map and various icons representing data and technology.

GDPR



### Employment issues

All cases of corruption which come to the PPC's attention, either as a result of complaints or inspections carried out by a supervisor/department and/or the Internal Audit Department, are fully investigated and then disciplinary measures are taken against the employees involved in line with Chapter VI of the PPC's Staff Regulation. In most cases and given the severity of the disciplinary offences imposed to employees involved in such cases, the said disciplinary cases are referred by the CEO to the First Instance Disciplinary Board, which can impose any of the sanctions specified in Articles 26 and 32 of the PPC Staff Regulation. In 2019, disciplinary proceedings were initiated against 3 employees due to cases of corruption. 1 out of these 3 employees was definitively dismissed without compensation, the second was temporarily suspended from work without pay and the third was also temporarily suspended from work without pay.

In 2019, there were 3 irrevocable criminal court rulings on issues falling under the criminal offenses of extortion and breach of duty, false solemn declaration and purloining of documents and forgery.

During the year there were a total of 7 lawsuits against employees of the Company, 3 for breach of duty, 1 for criminal infidelity and fraud, 1 for repeated fraud and infidelity, 1 for exposure and 1 for forgery, use of counterfeit money and embezzlement. All of them are in progress.

In addition, in 2019 fines were imposed on PPC totaling € 12,288 for labor issues, which the Company paid.

### Independent Authorities/Municipalities

In 2019, there were 28 appeals of tenderers (at a pre-contractual stage) against PPC. 20 of them were examined by the Authority for the Examination of Preliminary Appeals (AEPP) and ended with the issuance of decisions by the specific Authority. For the remaining 8 cases, the candidates appealed to Administrative Courts. The relevant appeal cases have all been closed.

By decision of the Athens Administrative Court of Appeal of 2015, a fine of the Regulatory Authority for Energy (RAE) amounting to € 4.4 million was reduced (imposed in 2013 due to alleged violation by PPC of the regulatory framework in its relations with industrial customers - failure to implement timely individualized invoices) to € 880,000, having as a consequence the amount of € 3,520,000 to be returned to PPC. Nevertheless, PPC filed an appeal in 2016, in order to cancel the remaining fine of € 880,000, which has not yet been determined.

With the final ruling of the Multi-Member Court First Instance of Athens in 2014, PPC was charged compensation of € 4,412,018.86 against a High Voltage customer for violation of articles 18 and 86 of L. 146/1914 on unfair competition. This ruling was appealed by PPC in 2016 and is expected to be discussed within 2019.

In 2019, RAE and the Competition Commission did not impose any fine on PPC for issues of anti-competitive behavior and monopoly practices. In addition, there is no record of non-compliance events regarding the proper labeling and information of products and services, as well as the effects of the Company's products and services on the health and safety of its customers. Instead, a fine of € 2.8 million was imposed for compliance issues with regulatory provisions, which was paid. PPC filed an appeal before the administrative courts in order to overturn the above fine.

PPC also filed appeals before the competent administrative courts for 10 cases of disputes concerning municipal fees worth € 1.14 million, which were confirmed in 2019.

### Environmental issues

In 2019, fines amounting to € 64,921.60 were imposed on PPC for non-compliance with environmental legislation and regulations, which were paid. It is noted that PPC is taking all necessary measures to comply with the maximum permissible noise limits at its facilities, and within 2019 no relevant fine was imposed on PPC.



## 7.2. Ensuring emergency preparedness and resilience GRI 103-2

The Company has defined risk as a group of uncertain and unpredictable situations, that could affect its overall operations, its business transactions, its financial performance or operating results, as well as the implementation of its strategy and achievement of its objectives.

The 2019 Annual Financial Report sets out the key risks identified, including risks associated with macroeconomic conditions in Greece, risks associated with providing public utility services, with potential strikes, and with the acquisition and renewals of permits, the availability of lignite reserves, information system hacking, laws and regulations pertaining to occupational health and safety, etc. Also included are natural and regulated risks which have been identified in relation to climate change and to CO<sub>2</sub> trading allowances, hydrological conditions, laws and regulations concerning the environment, and natural disasters.

The Risk Management Department is foreseen organizationally in the organization chart of the Company, but its staffing is relatively recent, due to the limitations of recruitment and other negative factors. To date, senior and upper management executives are involved on a case-by-case basis in the process of risk identification and primary assessment, in order to suggest to the Board of Directors the design and approval of specific risk management procedures and policies.

In addition, the Energy Management and Trading Department has developed procedures for managing the variety of risks associated with fulfilling its mission. These procedures are intended to address:

- Operational risks related to faithful observance of procedures, avoidance of mistakes, audit and verification of steps taken, data security and business continuity.
- Business risks associated with taking clear-cut, transparent, optimal business decisions at the right time.
- Cash flow risks, in cooperation with the Company's Finance Division, to ensure that financial obligations arising from day-to-day dealings can be met.
- Regulatory risks arising from the ever-changing nature of the Energy Market which is constantly developing.

The risks faced by the Company include, but are not limited to:

- |   |   |
|---|---|
| • Macroeconomic conditions in Greece  | • CO <sub>2</sub> emission rights   |
| • Credit risk   | • Risk of exposure to competition in the Wholesale Market   |
| • Liquidity risk  | • Tariff risk for competitive activities  |
| • Risk from the financial sector  | • Risk from regulated return on Distribution Network activities                                       |
| • Interest rate risk and foreign currency risk                              | • Regulatory risk   |
| • Credit rating risk  | • Risk from providing Public Service Obligations (PSOs)   |
| • Commodity price risk and risk from the electricity market                 | • Risk from a deficit in the Special Account for Renewables   |
| • Risk from the absence of fixed asset insurance                            | • Hydrologic conditions   |
| • Risk from the dependence on the Transmission System                       | • Risk associated with the operation and production capacity of the Non-Inteconnected Islands Network |
| • Risks related to EPC projects (engineering, procurement and construction) | • Risk from Potential Undertaking of Social Security Liabilities                                      |
| • Litigation risk   | • Risk from tax and other regulations   |
| • Risk from possible strikes  | • Health, safety and environmental laws and regulations   |
| • Information Technology Security risk                                      | • Licensing risk  |

### Extraordinary events

Extraordinary events, including natural disasters, fires, war, terrorist acts, strikes, etc. may lead to damage or interruption of mining operation and electricity generation, transmission and distribution activities. In addition, adverse macroeconomic developments, as well as financial and/or operational problems of key suppliers, service providers, contractors, etc. may have a negative impact on the Company's supply of liquid fuels, materials and spare parts and may increase their operating costs.

The Company's activities involve the risk of accidents and employees or third parties may suffer bodily injury or death as a result of such accidents. Specifically, while the Company believes that its equipment is well designed and manufactured and is subject to strict quality controls, quality assurance Testing and its condition is in accordance with the standards and regulations applicable to occupational health and safety, the design and construction process is completely controlled by the suppliers, manufacturers and contractors and there can be no guarantee that not any accident will occur during the installation or operation of this equipment.

In addition, the effects of the above can create significant and long-term risks, both for the environment and health, as well as for the environmental pollution, and may pose a risk or nuisance to residents of neighboring areas. The Company may be obliged to pay compensation or fines, restore





environmental damage or shut down power plants, in order to comply with the environmental, health and safety regulations.

The Company may also face claims for civil liability or fines in the ordinary course of its business, as a result of damages to third parties caused by natural and man-made disasters, as mentioned above. These obligations may lead to the payment of compensation, in accordance with applicable laws.

PPC has proceeded with the supply of a modern information system, the Energy Trading and Risk Management (ETRM), with the aim to support the Company's business activity in the electricity market and minimize operational risks. ETRM is currently in the process of being upgraded according to the new requirements of the Energy Market and will become operational soon.

#### **Dealing with Energy Management Risks**

In the context of the aforementioned ETRM's installation, the Energy Management and Trading Department has been supplied with specialized software, which can be used to generate Hourly Price Forward Curves for electricity prices in Greece and Italy. Based on these Forward Curves, the relevant quantitative risk indicators of PPC's energy portfolio can be calculated and also can make a stochastic analysis of energy balances, in order to make the best use of water resources.

In addition, the Energy Management and Trading Department is developing an in-house software for the stochastic compilation of energy balances (Monte Carlo), in order to be able to conduct probabilistic analysis of the energy and economic parameters of the energy balance and through which, PPC shall be able to quantify the relevant risk indicators and design their necessary hedging strategies.

Furthermore, in the context of risk management related to the operation of the Greek Energy Market, the Energy Management and Trading Department holds a regular procedure (on a monthly basis) for updating its energy balance. Based on the forecasts of the energy balance, PPC adjusts its strategy and planning to adequately secure its fuel needs (lignite, natural gas), its CO<sub>2</sub> emission allowances and electricity imports, and the utilization of the reservoirs' available water reserves in the most efficient techno-economic way.

In particular, as regards the management of its electricity imports and in order to counterbalance the risks associated with electricity quantities and prices, the Energy Management and Trading Department proceeds with securing the largest share of incoming imports through the conclusion of long term agreements (annual) at a

guaranteed price. At the same time, it takes part in the annual public tendering procedures, regarding the acquisition of interconnection options, based on the Assessments on the System Marginal Price (SMP) from the established energy balance scenarios.

Furthermore, regarding the risk management related to the purchase of CO<sub>2</sub> emission allowances, the Energy Management and Trading Department implements an approved procedure, based on which it ensures the limitation of the emission allowance costs to the amount recovered from the participation of its units in the wholesale energy market. In application of the Company's decisions, the Energy Management and Trading Department participates in the international stock exchange and bilateral rights markets aiming only to meet its needs and not to make a profit. Also, in order to mitigate the risk of possible future increases in CO<sub>2</sub> emission allowance prices, it implements from mid-2018 a policy of creating and managing their inventory, utilizing their price fluctuations. In view of the operation of the Target Model within 2020, and in the light of the provision of more effective risk management, the Energy Management and Trading Department has proceeded to reorganize its structure, through which it is planned to establish a unit for the management of relevant recognized risks.

#### **Our performance** GRI 103-3 PPC indicator

Having recognized the risk, but also the opportunity of climate change for the Company, PPC plans and implements a series of actions aimed at the reduction of the use of lignite and the increase of renewable energy sources in its energy mix. In 2019, the procedures for the elaboration of a study in collaboration with the European Bank for Reconstruction and Development were completed. The topic of the study was the "Development of an information disclosure plan in accordance with the guidelines of the Task Force on Climate Related Financial Disclosures (TCFD)". One of the benefits of the above study is expected to be the identification and classification of the risks related to climate change, as well as the determination of the impacts for the Company. Currently, relevant quality indicators are taken into consideration, related to the integration of ESG risks in the overall risk identification of the Company.

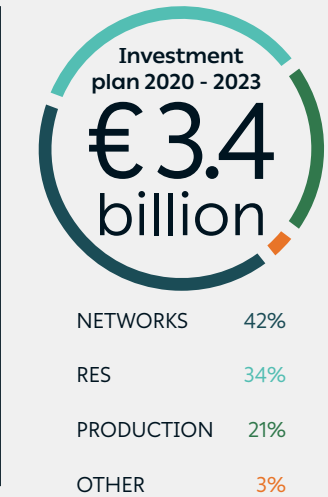
### 7.3. Adapting to the new energy market conditions and strengthening investments GRI 103-2

Greece's geographical location, its relations with the neighbouring countries and the technical and construction capabilities of Greek businesses, are major advantages that need to be exploited as much as possible. PPC aims to play a leading role, in terms of penetration in the surrounding energy markets, to the extent that this penetration will improve its financial position and support its Sustainable Development. In this context, it is transformed from a Company for the generation and supply of electricity into a Company that develops and offers complex energy products and services, focused on meeting the energy (and not only) needs of its customers.

PPC's continuous efforts are being made to identify potential new business activities in Greece and abroad. More specifically, any and all opportunities for the Company to expand and grow its operations, whether by expressing interest and participating in projects which are underway in the wider south-eastern Mediterranean region, or through signed memoranda of cooperation and discussions engaged with other interested businesses on a regular basis, are thoroughly examined. Potential business partnerships with companies and company groups, in the form of joint venture schemes (J-V) or Special Purpose Vehicles (SPV), are being investigated. These partnerships are expected to contribute towards the necessary technical know-how and secure the necessary funds for activities such as: high bandwidth infrastructure, electromobility, green energy services, RES and energy storage, energy efficiency services, penetration in the natural gas market etc. Continuing its efforts for further development in the area, PPC has turned its interest to investment opportunities in the field of renewable energy sources (mainly wind and solar power) and hydropower plants.



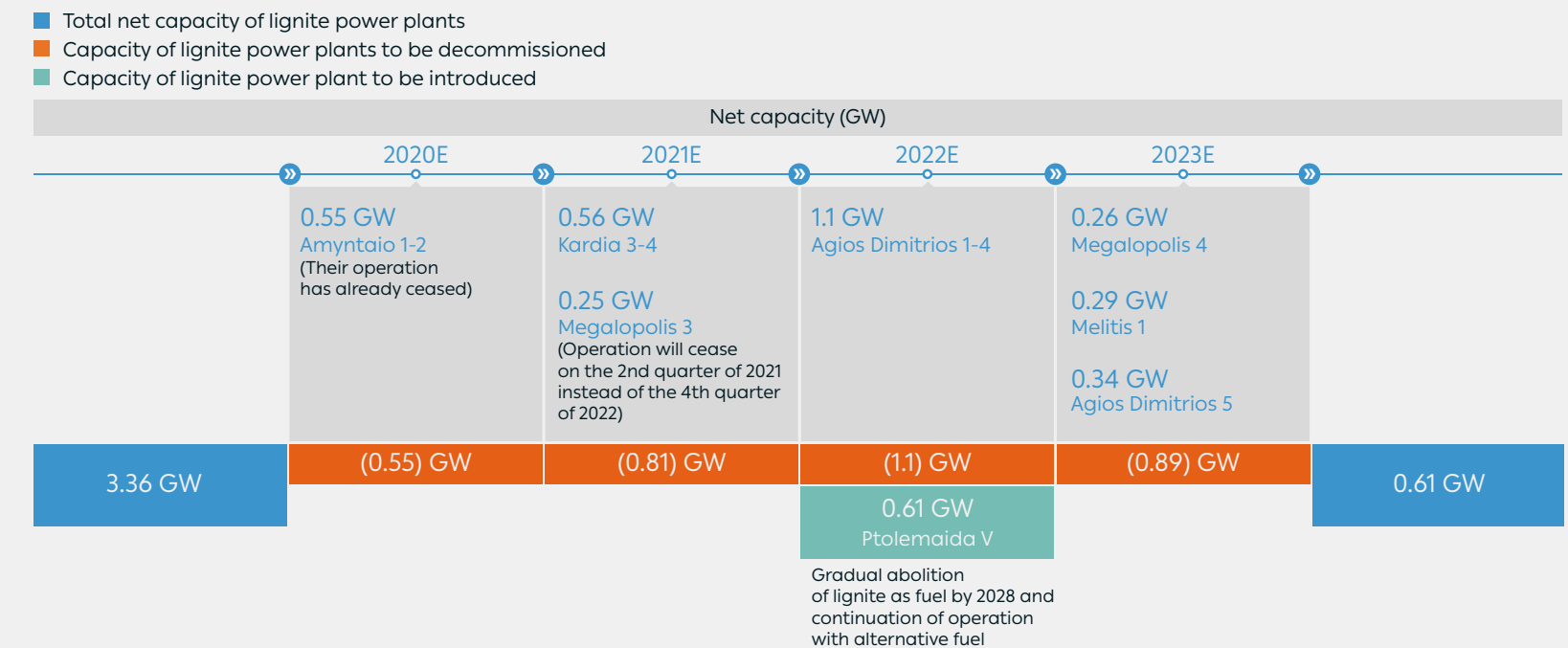
For the 2020-2023 period, PPC Group's strategic priorities are supported by an investment plan of approximately € 3.4 billion, out of which 76% is allocated to Networks and RES projects, 21% to production projects mainly for the completion of the construction of the new Ptolemaida V lignite power plant, for the hydroelectric power plants of Mesochora and Metsovitiko and further investments regarding the conventional power plants' maintenance and environmental upgrade. By seeking to achieve its strategic priorities and implement the specific actions at operational and regulatory level, PPC aims at having achieved profitability (EBITDA) of € 1.1 billion by 2023. Meanwhile, lignite power plants of total capacity 3.4 GW are to be decommissioned until 2023 and potential opportunities for the non-interconnected islands, regarding the conversion of existing oil-fired units into small-scale natural gas units are to be investigated.



The energy transformation taking place globally in general, as well as at European level more in particular, requires PPC to proceed quickly and dynamically to its corporate transformation, in order to continue to play a leading role in the energy and economic sector in our country, as it has played it throughout its long history.

#### Decarbonization plan

Lignite power plants of total capacity 3.4 GW to be decommissioned until 2023





In this context, in 2019, during the elaboration of its Business Plan, PPC processed its transformation plan, in order to be environmentally and economically sustainable in the coming years, further strengthening its Sustainable Development and implementing its vision, which is its transformation into a modern and innovative energy company.

As a consequence, it becomes obvious that the main vehicle for the sustainable development and corporate transformation of the Company is the renewable energy sources. The development of renewable energy sources is based on the first two pillars of the Business Plan (decarbonization and digitalization), which are complemented by the trend towards a new form of decentralized production. In combination with the implementation of saving measures, the significant progress of electrification and the digitalization of the economy, they form the main axes for the promotion of the energy transition and the strengthening of the socio-economic development. Electrification creates new challenges and opportunities for growth in the energy market. Electromobility, heat pumps in buildings and the production of "green" hydrogen constitute technological practices that are expected, shortly, to become commercially applicable on a large scale. The energy transition which is already underway, combined with the further application of electrification to energy systems, is expected to serve as a driving force for investments in the new RES projects.

The participation of the renewable energy sources in the energy mix leads to a reduction in electricity prices, as they reduce the marginal price of the system, resulting in suppliers buying cheaper, while giving them the opportunity in the near future to pass on these low prices to their customers, namely the consumer.

Particularly in the field of RES, PPC, the first company in Greece that installed RES (in 1982), is also active through its subsidiary, PPC Renewables S.A.

#### **PPC Renewables**

PPC Renewables S.A. is the corporate continuation of the respective Department of PPC S.A., which has been active pioneering, not only in Greece but also in Europe, since the 80's in wind, solar, hydroelectric and geothermal energy.

With 29 wind farms, 18 small hydropower plants, 28 photovoltaic stations and one hybrid power plant with total installed capacity over 200 MW and its extensive investment plan, PPC Renewables has been dynamically placed in the Greek market of renewable energy sources and aspires to lead the energy transformation that is taking place in the country. It invests in the power of nature and in collaboration with the largest energy groups and manufacturers utilizes business opportunities, with the aim of promoting "green" electricity generation projects. PPC Renewables is the only company that operates in all forms of renewable energy sources, wind, solar, hydroelectric, geothermal and biomass - biogas in Greece and implements an ambitious and realistic strategic plan so that its established power to be at the level of 1.5 GW, in projects of different technologies, by 2023.

This organic development is expected to be achieved, mainly, through the development of large solar and wind projects, the reconstruction of existing small hydro and wind projects, as well as expanding its available capacity with new projects including geothermal and biomass stations. In particular, the portfolio of its existing projects is expected to expand by 2023 with the following projects:

- under construction solar and wind projects, of approximately 0.1 GW,
- solar projects ready for construction, in Ptolemaida (200 MW) and Megalopolis (50 MW),
- a set of mature projects in the phase of preparation of bids, consisting of wind energy and NPP projects that have guaranteed environmental conditions, as well as the first photovoltaic projects at the West Macedonia Lignite Center (LCWM), of approximately 0.17 GW,
- mature solar projects in LCWM as well as additional under development projects of all RES technologies, of approximately 0.8 GW.

The overall financial results of PPC Renewables place it among the most profitable and economically sound companies in the industry. It intends to invest in this quality feature to grow organically in the coming years. Its extroverted nature is confirmed by its activity over time through joint ventures with companies in the industry as well as by the signing of Memoranda of Understanding (MoU) with major multinational energy companies, with the aim of jointly developing renewable energy projects in Greece, focusing on wind and solar projects.

Within 2021, the reconstruction and electrification of the old wind farms (3.60 MW), the construction of wind farms through affiliated companies with total capacity of approximately 54 MW, as well as the new wind farms of Karditsa (27.6 MW), Kefalonia (9.2 MW), Tinos (4.5 MW) and Sitia (6 MW) and the construction of photovoltaic stations with total installed capacity 30 MW in the West Macedonia Lignite Center are expected to be completed, while the construction of the two emblematic photovoltaic projects in Ptolemaida and Megalopolis, of 200 MW and 50 MW, respectively is underway.

PPC Renewables' goal is to further expand its portfolio with new, for Greece, and globally innovative renewable energy technologies, such as floating offshore wind farms, floating solar farms, as well as its pioneering participation in newly established energy markets as defined by the Target Model. In this context, PPC Renewables is expected to launch the tactics of bilateral contracts (PPAs) in Greece, with the photovoltaic project in Megalopolis, of 39 MW, together with the parent PPC S.A.

Its ultimate goal is to lead the energy transformation and become the leader in the Greek electricity market with the completion of the implementation of its business plan, by strengthening its share in it.

Sifnos Wind Farm  
(copyright: Georgios Kapsalis)



PPC Renewables is committed to adhering to the principles of responsible entrepreneurship: to respect human rights, to respect labor standards, to operate in a transparent manner and to protect the physical environment. It ensures the balance between professional and family life. It supports local authorities, associations and organizations and responds to emergencies.

During 2019, PPC Renewables:

- Employed 65 people, out of which 35 are men (54%) and 30 are women (46%).
- Allocated for donations and sponsorships to social groups an amount of over € 60 thousand which had a multiplier effect on local communities.
- Financially supported the excavation and conservation works at the UNESCO-recognized World Heritage Site of the Petrified Forest on Lesvos island.
- Supported with material and financial resources scientific conferences, workshops and forums on renewable energy sources and Sustainable Development.
- Is a Member of the Hellenic Network for Corporate Social Responsibility (CSR Hellas) and the European Business Network "CEASE".
- Implements an Occupational Health and Safety Policy and takes all legally prescribed measures for safe work within its headquarters, as well as in the facilities of its projects. In addition, it closely monitors and coordinates the occupational health and safety issues of its contractors.
- Has appointed a person responsible for the follow-up and compliance with environmental legislation, submitting an annual waste report to the electronic waste register for projects operating throughout the territory.
- Has supported local communities in cases of natural disasters.

At the same time, PPC continues to expand in the field of research programs and accreditations through the operation of the Testing, Research and Standards Center (TRSC).

#### Testing, Research and Standards Center

The Testing, Research and Standards Center (TRSC) operates in providing services to PPC units, but also to third parties, other than PPC customers.

The services provided include Testing in its laboratories, researches, equipment controls at the premises of PPC, instrument calibrations, special studies, applications and analyses, specialized consulting studies and inspections of materials and equipment for quality control of existing and purchased materials and equipment of all kinds of facilities.

The operation of the TRSC is not limited to meeting the needs of PPC only. On the contrary, it has expanded and satisfies the needs of a high scientific level and specialized requirements, in the wider Public Sector, as well as in the Greek industries. It should be noted that the TRSC is able to carry out, safely and reliably, all of the above activities, not only on its premises, but also on the products and on the premises of its customers.

The TRSC is accredited by the Hellenic Accreditation System ("ESYD"), according to the ISO 17020 and ISO 17025 standards. In order to maintain the accreditation by ESYD, the Center is subject to periodic inspections, which control not only the mode of operation of the Center, but also evaluate the Testing and audits carried out in terms of the reliability and accuracy of their measurements.

The Testing, Research and Standards Center is staffed with a high level of scientific staff, consisting mainly of engineers, scientists and technicians of similar specialties with the services it provides. It places special emphasis on the continuous education and training of employees, in order to ensure the continuous development and enrichment of their knowledge and skills.

The TRSC has the following laboratories on its premises:

Metrology	Analytical chemistry
Concrete	Fuels - Lubricants
Soil mechanics	Environmental chemistry and special materials
High power	Metallography
Temperature rise	Applied physics
High voltage and dielectric strength	Strength of materials
Electrical Testing and measurements	Photometry

For 2019, it participated in the following innovative co-financed programs:

#### Scaling of the Electrochemically Enhanced Catalytic Hydrogenation of CO<sub>2</sub> to Fuel Production - CO<sub>2</sub> TO FUELS

##### Programme objective:

Experimental study of the conversion of CO<sub>2</sub>-bound power plants to light hydrocarbons using electrochemically reinforced monolithic thin-film (ruthenium) porous films as well as semi-pilot solid bed reactors using on-site amplifier donors.

##### PPC's objective:

- Provision of technical and experimental exhaust gas data from thermal power plants.
- Contribution to the installation of a CO<sub>2</sub> capture-release laboratory device.
- Participation in the design, installation and operation of an integrated pilot exhaust gas treatment plant for fuel production.
- Preparation (in collaboration with the other participants) of a feasibility study and analysis of the sustainability of a possible industrial exhaust gas treatment plant, based on the results of the project.

##### Other participants:

- University of Patras, Department of Chemical Engineering, Laboratory of Electrochemistry and Chemical Processes.
- National Center for Research and Technological Development, Institute of Chemical Processes & Energy Resources, Laboratory for the Development of Integrated Process Systems.
- KAPA DYNAMIKI ATE.



Testing, Research & Standards Center

#### Utilization of lignite emissions in biotransformation processes to fuels and special chemicals - BIOMEK

##### Programme objective:

Potential of utilization of CO<sub>2</sub> produced by PPC thermal plants through its non-photosynthetic biotransformation by application of metabolic engineering to suitable extremophilic bacterial strains, to useful products that can be used either as biofuels for transport and cogeneration, or as raw materials for the chemical industry. The proposal is a partnership between the Testing, Research and Standards Center/PPC S.A. and FORTH/IEXMI. The MIT Professor of the USA, Mr. Grigoris Stefanopoulos, the main inspirer of the method, participates in the project as scientific advisor.

##### PPC's objective:

- Provision of technical data on the exhaust gases of thermal power plants (flows, recommendations, etc.), in order to optimally adapt the bioprocessing to the exhaust gases of PPC.
- Contribution to the modeling of the overall process through the development of the corresponding mathematical model.
- Participation in the elaboration of a feasibility study for the sustainability of the proposed method and the possibility of its application in PPC units in order to utilize the exhaust gases for the production of chemical products.

##### Other participants:

- Institute of Technology and Research, Institute of Chemical Engineering.

#### Development of a gas detection sensor using mutual injection in optical sources ICLs of medium infrared light - ILLIAS

##### Programme objective:

Utilization of ICLs properties in a new absorption spectroscopy scheme, first introduced in the infrared medium using QCLs by consortium members. This scheme utilizes the properties of two sources that are mutually coupled and switch to optical enclosure mode. The introduction of an absorption element between the two sources affects the infusion rate, alters the stability of the system and can be detected with great sensitivity. In this way it is possible to achieve a gas sensor of very high resolution and sensitivity.

##### PPC's objective:

- Contribution to the construction of the metal support frame of the measuring device.
- Use of the measurements of the existing devices for measuring gaseous pollutants NO<sub>x</sub>, SO<sub>x</sub>, CO and CO<sub>2</sub> of the power plants in order on the one hand to calibrate the new Nanoplus device and on the other to verify the capabilities of the new system.
- Use and extension of the laboratory equipment of TEX/Testing, Research and Standards Center for gas measurements in transformer oils.

##### Other participants:

- From the Greek side
- National & Kapodistrian University of Athens, Department of Informatics and Telecommunications.
- From the German side
- Nanoplus Nanosystems and Technologies GmbH.
  - Technical University of Darmstadt, Institute of Applied Physics (Technische Universität Darmstadt, Institut für Angewandte Physik).

#### Secure and Private Smart Grid- SPEAR

##### Programme objective:

The SPEAR programme aims at:

- a) the detection and response to cyber-attacks using new technologies,
- b) the timely detection of threats and anomalies in data flow,
- c) the development of integrated security detection solutions,
- d) the use of advanced means of privacy protection,
- e) tackling advanced hacking (APT) and targeted attacks on smart grids,
- f) increasing the resilience of smart grids,
- g) mitigating mistrust of smart grid operators and
- h) strengthening consentation at EU level.

##### PPC's objective:

Participation:

- supervising the execution of the project as a whole,
- recording the requirements of the cyber-attack protection system and developing its architecture,
- assembling the individual parts of the network and designing the procedures for controlling the efficiency of the system,
- in the final test and evaluation of the system.

##### Other participants:

- University of Western Macedonia (Greece - Coordinator).
- +13 partners from 8 countries.

#### SDN - microgridre Silient Electrical eNergy SystEm -SDN-MicroSENSE

##### Programme objectives:

Ensuring smart and secure networks against cyber-attacks in order to ensure National and Public Security, the normal operation of the Electricity and Energy Systems (EPES), as well as the integrity and confidentiality of communications.

##### PPC's objective:

- Contributing to the strengthening and protection of its infrastructure with the use of tools and SDN-microSENSE solutions.
- Contributing to saving resources and cost.
- Providing security solutions to its customers.

##### Other participants:

- AYESA ADVANCED TECHNOLOGIES S.A. (Spain - Coordinator).
- +29 partners from 11 countries.

#### Electrical Power System's Shield against complex incident sand extensive cyber and privacy attacks - PHOENIX

##### Programme objectives:

Offering a cybershield to shield European EPES infrastructure that allows

- a) the collective detection of major cyber security and privacy attacks; and
- b) ensuring business continuity and minimizing overlaps in infrastructure, environment, citizens and end users with a reasonable cost.

##### PPC's objective:

- Cybersecurity attacks on TPP assets and measurement subsystems: analysis of logs by HPAD SCADA systems, malware validation, authorization and DoS attacks.
- Cybersecurity in ultra-low latency (5G) communications: ultra-low latency remote control will be applied to VNF validating dual virtualization and avoiding a single point of failure.
- Consecutive energy results: As the dams also control the water flow of Kozani and Florina, they will be simulated / evaluated for the overlapping effects of an EPES attack on the water supply network.

##### Other participants:

- CAPGEMINI TECHNOLOGY SERVICES (France - Coordinator).
- +23 partners from 10 countries.



**Efficient conversion of lignite to electricity with simultaneous use of biomass in solid electrolyte fuel cell assisted by internal and external catalytic gasification - LIGBIO-GASOFC**

**Programme objective:**

Development of an innovative energy utilization process for domestic fossil fuels (lignite), agricultural residues and municipal solid waste in advanced gas / fuel cell (GASOFC) and low-fuel solid (DC) solid fuel (DC) and high-throughput solid fuel (DC) systems, with high efficiencies and low carbon footprint.

**PPC's objective:**

- Examination of the efficiency of a coupled external gasification system-SOFC (GASOFC), where emphasis will be placed on the optimal interconnection of the two devices and on maximizing the efficiency to gas composition (> 90%) and its subsequent use in SOFC.
- Participation in further optimization, size scaling, as well as in the benchmarking of GASOFC and DCFC systems.
- Participation in experiments in both the GASOFC coupled device and the DCFC device on a laboratory and semi-pilot scale.
- Participation in the elaboration of a sustainability study of the proposed technologies, while it will contribute to the assessment of their environmental footprint.
- Participation in the elaboration of a plan for dissemination and utilization of the results.

**Other participants:**

- University of Western Macedonia (coordinator).
- Technical University of Crete.
- FORTH.
- EBETAM.

**Our performance** GRI 103-3 PPC indicator

In December 2019, PPC published the strategic priorities of its Business Plan, which were updated in December 2020. The three pillars of PPC's corporate transformation and their respective actions are the following:

**1. Application of the "Green Deal" in electricity generation**

In the context of implementation of the Green Deal in electricity generation, PPC decided to accelerate the withdrawal of its existing lignite units, with a total capacity of 3.4 GW, until 2023. The new, under construction, state-of-the-art Unit Ptolemaida V, which is expected to be integrated into the electric system in 2022, will use lignite as fuel by 2028 at the latest, and then, it will operate with alternative fuel or fuel mixture.

The decarbonization plan will be implemented with full respect for PPC employees, local communities and the environment. The company will cooperate with local authorities to find the most suitable alternatives for district heating and will support the Government's plan to support local economies. As PPC still has significant assets in the regions affected by decarbonization, it intends to develop activities there with significant added value for both the Company itself and the local economies.

PPC, driven by its subsidiary "PPC Renewables", will make significant investments in RES in order to increase its installed capacity to approximately 1.5 GW by 2023 through both organic development and partnerships.

**2. Digitization and operational efficiency**

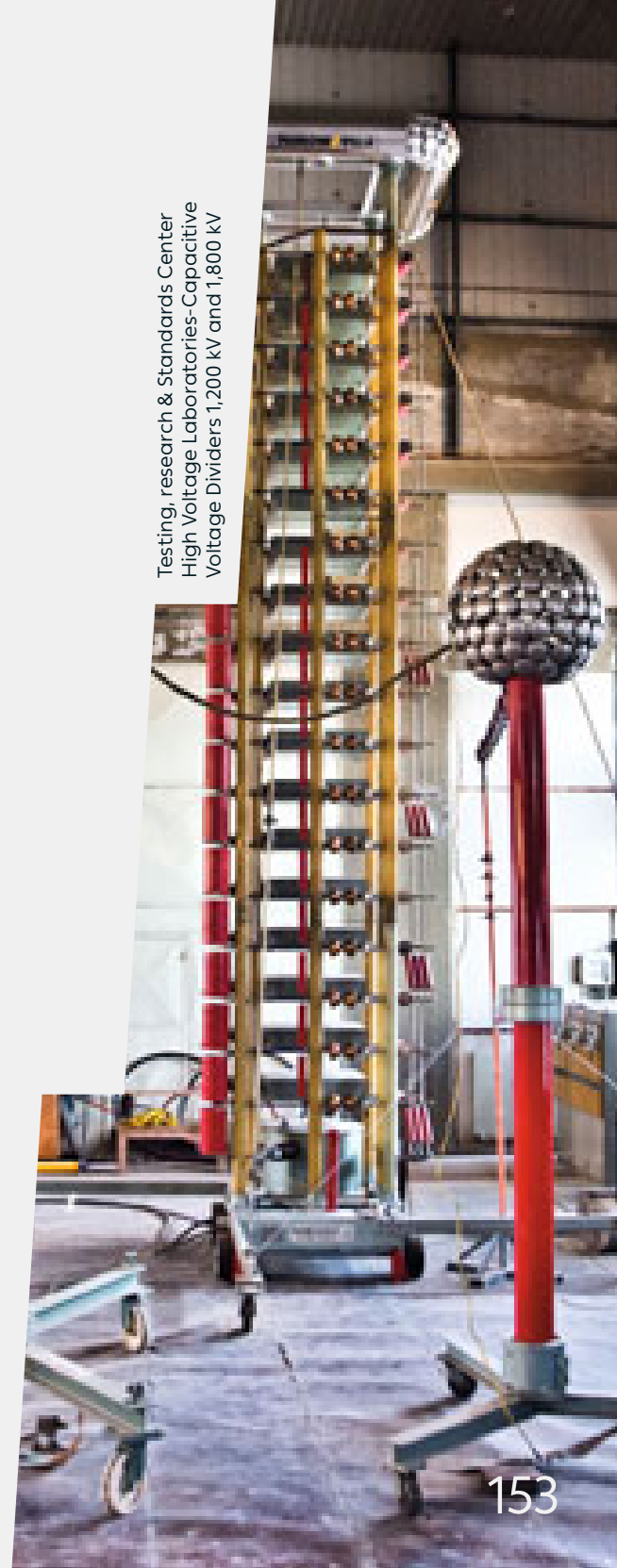
The second pillar concerns the digitization and improvement of the operational efficiency and includes all the parts of the electricity value chain, in which PPC is active. Thus, for the conventional production, the digitization of the functions of the power plants is foreseen, in order to improve their efficiency, as well as of the lignite mines that will remain in operation for a few more years. At the same time, modern digital systems for weather forecasting and energy management are provided for RES, in order to predict their production as accurately as possible and to plan their participation in the liberalized wholesale electricity market in the best possible way. Finally, for the supply (electricity retail market) the Company plans actions, in order to collect as much of the overdue debts as possible, as well as to enrich and utilize the digital systems available for the analysis of large volumes of data (big data & advanced analytics).

The electricity distribution chain is expected to play a leading role in global energy transformation. Following the international trends, PPC has planned significant investments in the distribution network of its subsidiary (HEDNO S.A.) which it manages. The absorption of scattered production, the digitization and analysis of big data (big data & advanced analytics), the maintenance through diagnostics, as well as a number of other modern functions require the automation and installation of new smart networks and telemetry devices.

**3. Expansion into new activities and value-added products with a customer-centric approach**

The strengthening of its customer-centric concept, concerns the third pillar of its transformation and involves actions related to the retail energy market. It includes the revision of the Marketing strategy, in order to improve the quality of services, as well as the development and introduction to the market of new products and energy services of added value for the end consumer. In this context, the entry of PPC in the retail gas market has already taken place in 2019. Moreover, PPC's priority is the development -in the most efficient way- of the necessary infrastructure for the electrification of transportations. Internationally, there is a rapid increase in electric vehicles, as the cost of their purchase is expected to approach the cost of conventional vehicles in the coming years. PPC will effectively contribute to the increase of electric vehicles in our country, by investing in the necessary infrastructure and more specifically in the installation of more than 1,000 charging stations in the coming years, while the medium-term goal is to install more than 10,000 charging stations throughout Greece. At the same time, the possibilities of the Company to develop a fiber optic network platform at a national level are carefully examined, so that PPC will become a key provider of very high speed broadband services, accelerating the country's competitiveness and also creating another source of income for the Company.

Testing, research & Standards Center  
High Voltage Laboratories-Capacitive  
Voltage Dividers 1,200 kV and 1,800 kV





The goal of PPC's corporate transformation is the realization of its vision which is its transformation into a modern and innovative energy company, economically and environmentally sustainable. PPC's Business Plan was warmly welcomed and positively commented by analysts, investors and other stakeholders, and is expected to help improve its creditworthiness and financial position. The positive results of the implementation of the corporate transformation began to become visible from the 4th quarter of 2019.

The corporate transformation of PPC will have positive results for all stakeholders of the Company, such as its shareholders, employees, customers, local communities (especially where PPC has developed significant activities) and the Greek society and economy in general.

The strong shift to renewable energy sources will lead to a rapid improvement in its environmental footprint, for example, a reduction of about 62% in carbon emissions by 2023. In addition, due to the holistic approach of PPC's Business Plan approach is holistic, PPC envisages actions for the human resources currently employed in activities that will be closed, such as retirement, voluntary exit funded by the Company, retraining in new jobs, as well as creation of new jobs in new activities (such as the RES investments) that are planned to be made in lignite-bearing areas.

The Company's customers will have significant financial benefits from the creation of new competitive packages, from the provision of new services of high added value, as well as new energy products, while at the same time the customer service will be improved through the application of advanced digital technologies and redesign of their service points.

Respectively, taking and implementing specific decisions to reduce overdue debts in collaboration with specialized consultants, will contribute the improvement of the liquidity and financial results of the Company with immediate benefit for all its stakeholders.

## 7.4. Participating in shaping the energy policy

The electricity sector in Greece is regulated in accordance with the European and national regulatory framework which consists of Laws, Presidential Decrees, Ministerial Decisions and Decisions of the Energy Regulatory Authority and the competent Market Managers.

The regulatory framework determines PPC's participation in the energy markets and affects its relations with its competitors and customers, as well as the business decisions taken in relation to the Company's development and the planned investments in infrastructure, technologies and services.

PPC meets the challenges of the regulatory framework and for this reason:

- Collaborates with the Regulatory Authority, Market Operators and State and EU institutions, assisting in the formulation of policies that strengthen healthy competition.
- Submits and supports its positions in the public debate before national and European institutional bodies, participating continuously and actively in the relevant consultations.
- Ensures its effective adaptation to regulatory obligations, always guided by the interest of the Company.
- Demands the removal of any existing regulatory distortions against it, in the context of competition.

For the coordinated management of all the above actions, it has set up a competent organizational unit, the Regulatory Affairs Department. The Regulatory Affairs Department is responsible for monitoring the regulatory framework governing the energy market and related activities of the Group, shaping regulatory intervention and participating in ensuring regulatory compliance between the Company's units.



PPC, as the largest energy company in Greece, actively participates in the development of its public policy on energy issues, in order to promote knowledge and exchange views resulting from its participation in conferences with institutional interventions, information and awareness initiatives.

Its constant information on energy issues also comes from the Representation Department in the European Union, in Brussels, which is responsible for promoting the Company's positions in all kinds of institutions and bodies of the European Union. It is a member of many organizations and scientific communities such as ELETAEN and IENE. PPC also participates in international associations and organizations for the promotion of renewable energy sources.

The participation of PPC in public consultations for the formulation of legal and regulatory regulations, the announcements of the Management and the participation of the Chairman and Chief Executive Officer with speeches in international conferences and social organizations, the support of a series of meetings and actions in Greece, are Company's initiatives through which it publishes its positions, proposes and adopts opinions, contributing to the extent applicable, to the development of the Public Policy.

Indicative of the recognition of PPC's commitment to partnerships that promote optimal organization, transparency and business ethics, is the election of the Chairman and Chief Executive Officer of PPC, Mr. Georgios Stassis, as a member of the Board of Directors of EURELECTRIC, during the meeting that took place on 28.11.2019 in Brussels. Mr. Stassis represents Greece on the Board of Directors of EURELECTRIC as President of the Hellenic Electricity Companies Association, a position to which he was elected on September 17, 2019. EURELECTRIC is the European Federation of National Associations of Electricity Companies with more than 34 full members and representing over 3,500 companies operating along the entire electricity value chain. It is an important interlocutor with the European Commission on all issues of the electricity market, especially on issues of energy transition and green growth.

Over the last years, PPC has repeatedly referred to the issue of the necessary rationalization of the electricity market, in order to ensure its competitive operation in a truly liberated environment for the benefit of consumers.

PPC argues for the need to create a modern electricity market, which:

- will operate with transparency and predictability, in order to be attractive for new investments when and where they are needed,
- enhance competitiveness for the benefit of consumers and the national economy, and
- will contribute effectively to the security of the country's energy supply in the long run.

PPC monitors developments in the gas market, alternative "green" fuels and market conjugation and in particular the new, large legislative package that started as "Gas Package" and is already marking its transformation into "Decarbonization Package" to limit its use of natural gas and its substitution by reduced carbon emissions fuels (hydrogen, biomethane, synthetic fuels).

The operation of the electricity market in Greece is gradually changing and adapting to the changes taking place at European Union level. Already with L. 4425/2016 (as amended and in force), the reorganization of the Greek electricity market was instituted, in application of the European legislation for the completion of the single European electricity market and its transition to the Target Model.

The aim of the European Energy Policy is to create a single competitive energy market that will enhance security of energy supply, mobilize investments in new plants and production technologies, energy saving and energy efficiency technologies, while giving real choices to end consumers.

In this context of reorganization, the necessary regulatory interventions for the organization and operation of more Energy Markets (Electricity Markets, Natural Gas Markets, Environmental Markets) and/or Energy Financial Markets are being launched in our country by the Hellenic Stock Exchange. Especially with regard to electricity, electricity transactions in the Interconnected Electricity System are carried out (since 01.11.2020) in the Energy Financial Market, the Next Day Market, the Intraday Market and the Balancing Market.

The responsibility for the liquidation of the related transactions has been assigned to the Energy Exchange Clearing Company S.A. (EnExClear) in order to Clear the transactions in the Next Day and Intraday Markets of the Hellenic Energy Exchange S.A., as well as in the Balancing Market and any other related activity.

The transformation of the domestic electricity market, which is shaped by an ever-evolving regulatory environment, creates significant challenges for the Company. The shaping of the regulatory intervention in this environment, is therefore a material factor for the sustainable operation and development of the Company and its continuous adaptation to the new energy data.

The creation of the Energy Exchange, for which PPC has expressed itself positively, is a key element for the modernization of the Greek energy markets in its course of coupling with the single European electricity market. The new stock energy market that was created, is estimated to attract investment thanks to its uniform and clear operating rules as in other European markets and thus, to create the necessary liquidity, by increasing the volume of transactions, and attracting the interest of companies, from all over South-Eastern Europe.



With an Act of Legislative Content, published in the Government Gazette (Government Gazette A'145/30.09.2019) entitled: "Urgent regulations of the Ministries of Environment and Energy, Interior, Finance and Health", the NOME auction was canceled as of 16 October 2019, amounting to 1,029 MWh/h and consequently, the total annual amount of electricity available through the auctions of forward electricity products with physical delivery for the year 2019 and until 31 August 2020 is exhausted by the auction held on 17 July 2019 with no other relevant obligation at present. With the same Act of Legislative Content, par. 4 of article 135 of L. 4389/2016 was abolished, which stipulated the increase of the quantities of futures products to be auctioned in case the impairment of PPC's share in the retail market of the Interconnected System falls by two (2) percentage points of the impairment target of the control semester. The Act of Legislative Content was ratified by L.4638/2019 Issue A '181/18.11.2019.





Platanovyssi HPP, Nestos Complex

## 8. Key Performance Data

PPC's key financial, environmental and social performance data for 2017-2019 are presented in the table below. More information can be found in the relevant sections of this Report.

Economy	2017	2018 <sup>1</sup>	2019 <sup>2</sup>
Revenues (in € '000)	4,847,036	4,593,522	4,736,317
Total liabilities and equity (in € '000)	14,740,889	13,482,403	12,767,614
Total liabilities (in € '000)	9,263,035	9,657,377	10,081,795
Total equity (in € '000)	5,477,854	3,825,026	2,685,819
Domestic sales (in GWh)	43,821	40,921	38,491
Financial income (in € '000)	110,223	111,478	72,459
Salaries and employee benefits including employer social security contributions (in € '000) <sup>3</sup>	559,396	607,955	292,145 <sup>4</sup>
Earnings (losses) before tax (in € '000)	223,423	(802,480)	(2,323,677)
Long-term loan liabilities (in € '000)	3,738,864	3,190,506	3,467,108
Short-term loan liabilities (in € '000)	530,378	744,767	417,361



Employees	2017	2018 <sup>2</sup>	2019 <sup>2</sup>
Total No. of employees	10,672	9,031 <sup>5</sup>	8,107 <sup>5</sup>
Female employees	21%	23%	25.5%
No. of employees with collective labour agreement	10,651	9,010	8,088
Total No. of accidents <sup>6</sup>	50	42	42 <sup>7</sup>
Total No. of fatal accidents	0	0	0
Fatal accidents frequency rate <sup>8</sup>	0	0	0
Accidents frequency rate <sup>9</sup>	2.37	2.12	2.54
Total No. of days of absence due to accidents	1,819	1,355	1,217
Accident severity rate <sup>9</sup>	0.09	0.07	0.07

Environment	2017	2018	2019 <sup>2</sup>
No. of power plants with certified Environmental Management Systems (lignite centers, thermal and hydroelectric power plants, etc.)	20	18 <sup>2</sup>	18
CO <sub>2</sub> emissions from electricity generation (in thousands of tons)	31,794	23,828 <sup>2</sup>	17,579
Greenhouse gas (CO <sub>2</sub> ) trading rights (in € '000)	181,215	301,405 <sup>1</sup>	411,885

Market and customers	2017	2018 <sup>2</sup>	2019 <sup>2</sup>
Installed capacity (in MW)	11,968	11,142	10,544
Net energy output (in GWh)	32,326	27,110	22,073
No. of connections (low and medium voltage)	7,176,082	6,920,329	6,551,332
Supply market share (average annual) <sup>10</sup>	86.7%	81.9%	75.8%

Society	2017	2018 <sup>2</sup>	2019 <sup>2</sup>
Social contribution (donations and sponsorships <sup>11</sup> , support of local communities and institutions/ organizations etc.) (in € '000)	1,446	1,822	2,532

1. Parent company's financial results with discontinued operations (Lignitiki Melitis S.A. and Lignitiki Megalopolis S.A.).
2. The data does not include the companies Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A.
3. Payroll costs incorporated in tangible assets are not included.
4. Compared to 2018, there is a significant decrease, due to the change of the electricity supply tariff for employees and retirees, amounting to € 148,058.
5. Full time employees – this includes PPC S.A. employees working at PPC Renewables S.A. but not those seconded to insurance companies.
6. The methodology taken into account is the "European statistics on accidents at work (ESAW) - Methodology - 2001 edition" followed by the European Agency for Safety and Health at work according to ESAW EU - OSIA and EURELECTRIC. The number of accidents includes all accidents that have occurred during the work of permanent and seasonal / temporary personnel and have caused absence from work for more than three (3) calendar days. Accidents on the way to and from work are not included as well as pathological episodes, which (statistically) are examined separately.
7. The number of accidents for the year 2019 is 42 instead of 43 that was included in the Annual Financial Report of 2019.
8. Calculation Method: Number of fatal accidents per 10,000 employees according to ESAW.
9. The methodology taken into account for the indexes is the "European statistics on accidents at work (ESAW) - Methodology - 2001 edition" followed by the European Agency for Safety and Health at Work EU - OSHA and EURELECTRIC. How to calculate frequency index: Number of accidents per 10<sup>6</sup> hours of risk exposure. Method of calculation of severity index: Number of days of absence from work (calendar) per 10<sup>3</sup> hours of exposure to risk.
10. Sales share is defined as the percentage of electricity sold by PPC to end customers in Greece in relation to total sales to end customers in Greece each year.
11. The amount of donations/sponsorships concerns amounts that have been entered in the accounts from January 1 to December 31, 2019.



## 9. Commitments - Results

The following tables show the goals set for 2019 (in the 2018 Sustainable Development Report), their results, as well as the Company's goals for the coming years.

### Promoting sustainable development

#### 2019 Goal

Strengthening the communication of PPC's approach with regards to topics of sustainable development.

#### 2019 Result

Achieved

#### 2020 Goal

Strengthen communication methods and channels on sustainable development topics with all stakeholders.

## Employees

2019 Goals	2019 Results
Establishment of formal qualifications per job, in combination with staff categories - specialties.	Not achieved
Digitization of the rest of internal service files.	Not achieved
Drafting-completion of at least 10 Occupational Risk Assessment Studies (ORAS).	Achieved
Issuance of accident statistics and commentary on typical accidents, which occurred to staff of Lignite Generation and Thermal and Hydro Generation Business Units in 2018.	Achieved
Implementation of at least 10 visits of social workers in the region.	Achieved
Informing and training of social workers on the topics of "mobilization interview" and "Managing people with suicidal tendencies".	Achieved

### 2020 Goals

Establishment of formal qualifications per job in combination with staff categories – specialties (completion within 2 years, i.e. by the end of 2021).
Preparation of a tender process (technical specifications) for the digitization of personnel files (completion in 2021).
Voluntary retirement program for the employees.
Drafting-completion of at least 10 Occupational Risk Assessment Studies (ORAS).
Issuance of accident statistics and commentary on typical accidents, which occurred to staff of the Mines, Power Plants and HEDNO in 2019.
Implementation of at least 10 visits of Social Workers in the province.
Implementation of at least 3 social activities.

## Environment

2019 Goals	2019 Results
Reassessment/supervision of the Environmental Management systems of the already certified, according to ISO 14001: 2015, power plants and maintaining the certification status.	Achieved
Continuation and completion of the processes of development and implementation of the Environmental Management Systems and certification according to ISO 14001: 2015, in APPs Samos, Lemnos, Chios, Karpathos and Kos.	Achieved
Initiation and preparation of the process of development and implementation of the Environmental Management System, according to ISO 14001: 2015, of the Plastira hydroelectric plant and the South Rhodes thermal power plant (Kattavia TPP).	Achieved
Integration of "Energy Control" procedure in the existing procedures of the Environmental Management System of the Lavrio TPP.	Not achieved

### 2019 Goals

2019 Goals	2019 Results
Certification of the West Macedonia Lignite Center according to the Energy Management standard ISO 50001.	Achieved
Planting of 125,000 plants in areas of the West Macedonia Lignite Center and implementation of fire protection projects in the tree-lined areas.	Achieved
Initiation procedures for the elaboration of a study in collaboration with the European Bank for Reconstruction and Development, for the "Development of an Information Disclosure Plan according to the guidelines outlined by the Task Force on Climate-related Financial Disclosures (TCFD)".	Achieved

### 2020 Goals

Environmental Management Systems certification according to ISO 14001, for APPs Samos, Lemnos, Karpathos, Chios and Kos.
Completion of the process of development and implementation of the Environmental Management System (EMS), according to ISO 14001: 2015 at the thermal power plant of South Rhodes (Kattavia TPP) and its integration with the EMS of the Soroni Rhodes TPP.
Development and implementation of an Environmental Management System, according to ISO 14001: 2015 at the Plastira hydroelectric power plant.
Preparation of a Notice of Call for tenders for the nomination of Contractor/s for the re-certification according to ISO 14001: 2015, of the TPPs and Hydroelectric production complexes.
"Reforestation in areas north of the external deposit of the Lignite Center of Western Macedonia mine". (Call for tenders 2020.328/West Macedonia Lignite Center).
"Installation of cultivation of aromatic plants in the external deposit of the Amyntaio Mine Field". (Call for tenders 2020.321/ West Macedonia Lignite Center).
"Reforestation in areas south of the external deposit of the Lignite Center of Western Macedonia mine". (Declaration 2020.329/ West Macedonia Lignite Center).
"Reforestation in areas northwest of the external deposit of the Lignite Center of Western Macedonia mine". (Call for tenders 2020.326 /West Macedonia Lignite Center).
"Fire protection projects in West Macedonia Lignite Center".
"Planting study in areas of the Municipal Districts of Riaki-Melissia".
Promoting actions for integration of "Energy Control" procedure in the existing procedures of the Environmental Management System of the Lavrio TPP.
Elaboration of a study in collaboration with the European Bank for Reconstruction and Development, for the "Development of an Information Disclosure Plan according to the guidelines outlined by the Task Force on Climate-related Financial Disclosures (TCFD)".

### 2021 Goal

Integration of energy control process in ISO 14001, for all facilities.
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## Market and Customers

2019 Goals	2019 Results
Standardization and homogenization of processes and functions through the development of management systems (ISO) in selected stores for 2019.	Preparation of the process in 2019 was achieved. Implementation horizon is the year 2021.
Further development of e-customer service, through e-contract and e-settlement applications.	The goal of enabling an electronic contract was achieved.
Digitization of the customer file and provision of the possibility of electronic signature by the customers.	Achieved
Development of the personnel training plan aiming to optimize customer service.	Preparation of the process in 2019 was achieved. Implementation horizon is the year 2021.

### 2020 Goals

- New product portfolio in line with PPC's strategic focus on providing a new customer and service-oriented product and service experience, with simplicity and transparency.
- Improving the customer experience through all its service channels.
- Improving the quality of services provided and customer satisfaction.
- Development of new activities in the field of laboratory methods and applied research.
- Maintaining and increasing the scope of accreditation of the Testing Research and Standards Centre.
- Development of activities to attract new customers.

### 2021 Goals

- Standardization and homogenization of processes and functions through the development of management systems (ISO) in selected stores.
- Further development of electronic customer service, through electronic settlement applications.
- Development of a personnel training plan, aiming at optimizing customer service.

## Social Contribution

2019 Goals	2019 Results
Implementation of at least 3 social solidarity activities.	Achieved
Commencing of two new courses in the PPC Private Vocational Training Center - Energy Institute in Kozani.	Achieved (2 new classes were organized and offered, which in the end did not work due to low attendance)
Continuation of programs aiming to the development and strengthening of local communities.	Achieved
Provision of vocational guidance services to about 150 high school students in the Municipalities of Kozani, Eordaia and Amyntaio.	Achieved

### 2020 Goal

- Implementing social contribution programs, focusing on supporting NGOs for children, as well as the health sector.



## 10. GRI Content Index GRI 102-55

GRI Standard	Disclosure	Report Page/Reference	Omission
<b>General Disclosures ("Core" option)</b>			
	102-1 Name of the organization	14	—
	102-2 Activities, brands, products, and services	14	—
	102-3 Location of headquarters	14	—
	102-4 Location of operations	14	—
	102-5 Ownership and legal form	14, 134	—
	102-6 Markets served	14	—
	102-7 Scale of the organization	14, 73	—
	102-8 Information on employees and other workers	77-78	The total number of employees of contractors/subcontractors employed by PPC is not available. Gender and regional information for full-time seasonal workers (2019: 1,108) is not available.
GRI 102: General Standard Disclosures 2016	102-9 Supply chain	22	—
	102-10 Significant changes to the organization and its supply chain	6, 14-21	—
	102-11 Precautionary Principle or approach	27	—
	102-12 External initiatives	23	—
	102-13 Memberships of associations	23	—
	102-14 Statement from the senior decision-maker	6-7	—
	102-16 Values, principles, standards, and norms of behavior	125-139	—
	102-18 Governance structure	126-133	—
	102-40 List of stakeholder groups	30-31	—
	102-41 Collective bargaining agreements	75	—
	102-42 Identifying and selecting stakeholders	30-31	—

GRI Standard	Disclosure	Report Page/Reference	Omission
<b>General Disclosures ("Core" option)</b>			
GRI 102: General Standard Disclosures 2016	102-43 Approach to stakeholder engagement	30-31	–
	102-44 Key topics and concerns raised	30-31	–
	102-45 Entities included in the consolidated financial statements	9	–
	102-46 Defining report content and topic Boundaries	9, 32, 34-35	–
	102-47 List of material topics	32-33	–
	102-48 Restatements of information	9	–
	102-49 Changes in reporting	9	–
	102-50 Reporting period	9	–
	102-51 Date of most recent report	9	–
	102-52 Reporting cycle	9	–
	102-53 Contact point for questions regarding the report	11	–
	102-54 Claims of reporting in accordance with the GRI Standards	9	–
	102-55 GRI content index	171-176	–
102-56 External assurance	183-185	–	
General Standard Disclosures for the Electric Utility Sector	EU 1 Installed capacity, broken down by primary energy source and by regulatory regime	18	–
	EU 2 Net energy output broken down by primary energy source and by regulatory regime	19	–
	EU 3 Number of residential, industrial, institutional and commercial customer accounts	21	–
	EU 4 Length of above and underground transmission and distribution lines by regulatory regime	21	–
	EU 5 Allocation of emissions allowances, broken down by carbon trading framework	46-49	–

GRI Standard	Disclosure	Report Page/Reference	Omission
<b>Material Topics</b>			
<b>Improving energy efficiency through the use of new technologies and promoting renewable energy sources</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	34	–
	103-2 The management approach and its components	37	–
	103-3 Evaluation of the management approach	38-44	–
GRI 302: Energy 2016	302-3 Energy intensity	38	–
	302-4 Reduction of energy consumption	38	–
<b>Combating climate change and reducing greenhouse gases and other air emissions (e.g. NOx, SOx, VOCs)</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	34	–
	103-2 The management approach and its components	45-46	–
	103-3 Evaluation of the management approach	46-54	–
GRI 305: Emissions 2016	305-1 Direct (Scope 1) GHG emissions	46-47	–
	305-4 GHG emissions intensity	47	–
	305-5 Reduction of GHG emissions	46-47	–
	305-6 Emissions of ozone-depleting substances (ODS)	46-49	–
	305-7 Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	49	–

GRI Standard	Disclosure	Report Page/Reference	Omission
<b>Material Topics</b>			
<b>Generating economic value / economic performance</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	34	–
	103-2 The management approach and its components	73	–
	103-3 Evaluation of the management approach	74	–
GRI 201: Economic Performance 2016	201-1 Direct economic value generated and distributed	74	–
GRI Economic Disclosures for the Utility Sector	EU 11 Average generation efficiency of thermal plants by energy source and by regulatory regime	20	–
	EU 12 Transmission and distribution losses as a percentage of total energy	–	This indicator is not relevant to PPC's operation. This data is the responsibility of IPTO and HEDNO.
<b>Creating and developing employment</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	35	–
	103-2 The management approach and its components	75-80	–
	103-3 Evaluation of the management approach	80-85	–
GRI 401: Employment 2016	401-1 New employee hires and employee turnover	81-83	–
	401-2 Benefits provided to full-time employees that are not provided to temporary or part-time employees	84-85	–
GRI Labor practices and decent work disclosures for the electric utility sector	EU 15 Employees eligible to retire in the next 5 and 10 years	80	–

GRI Standard	Disclosure	Report Page/Reference	Omission
<b>Material Topics</b>			
<b>Improving the services provided and developing new services/products</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	35	–
	103-2 The management approach and its components	98-107	–
	103-3 Evaluation of the management approach	107-108	–
PPC indicator	Customer satisfaction degree	107	–
<b>Reinforcing corporate governance, business ethics and regulatory compliance</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	35	–
	103-2 The management approach and its components	125-137	–
	103-3 Evaluation of the management approach	137-139	–
GRI 205: Anti- Corruption 2016	205-3 Confirmed incidents of corruption and actions taken	137-139	–
GRI 206: Anti- competitive behavior 2016	206-1 Legal actions for anti-competitive behavior, anti-trust, and monopoly practices	137-139	–
GRI 307: Environmental Compliance 2016	307-1 Non-compliance with environmental laws and regulations	137-139	–
GRI 419: Socio Economic Compliance 2016	419-1 Non-compliance with laws and regulations in the social and economic area	137-139	–

GRI Standard	Disclosure	Report Page/Reference	Omission
<b>Material Topics</b>			
<b>Ensuring emergency preparedness and resilience</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	35	–
	103-2 The management approach and its components	140-143	–
	103-3 Evaluation of the management approach	143	–
GRI 201: Economic Performance 2016	201-2 Financial implications and other risks and opportunities due to climate change	–	The information provided does not cover fully the disclosure requirements. In the next Report, the Company will investigate the disclosure of additional information.
PPC indicator	Integration of ESG risks in the overall risk identification (qualitative indicator)	143	–
<b>Adapting to the new energy market conditions and strengthening investments</b>			
GRI 103: Management Approach 2016	103-1 Explanation of the material topic and its Boundary	35	–
	103-2 The management approach and its components	144-152	–
	103-3 Evaluation of the management approach	152-154	–
PPC indicator	Implementation of new business plan	152-154	–





## 11. Applying the AA1000 AccountAbility Standard

PPC follows the principles of the AA1000AP AccountAbility Standard (2018) in identifying, prioritizing and responding to sustainable development issues. These principles are:

- **Inclusivity:** The Company recognizes the stakeholders who are affected by its operation or may affect with their decisions the Company's ability to implement its strategy and achieve its goals. Then, the Company consults with them to identify their needs and expectations and prioritize the Sustainable Development material topics of PPC.
- **Materiality:** The Company identifies and prioritizes (through the materiality analysis according to GRI standards) the material topics relevant to its business model.
- **Responsiveness:** The Company manages and responds to the material topics and the challenges, along with the participation of all Company's business units.
- **Impact:** The Company monitors and measures the impacts caused by its operation, in order to mitigate its negative and increase respectively its positive impacts.

Accountability AA1000AP Principles	Section of the Report
Inclusivity	4.4
Materiality	4.5
Responsiveness	4, 5, 6, 7
Impact	4.3, 4.5

## 12. Greek Sustainability Code – Declaration of Conformity

PPC supports the Greek Sustainability Code and complies with the 20 criteria listed in the Code. The table below sets out the sections of the Report, where the Company's activities relevant to each criterion are presented.

Pillar	Criterion	Section of the report
Strategy	1. Strategic analysis and action	4.1, 4.2, 4.3
	2. Materiality	4.5
	3. Objectives	9
	4. Management of value chain	4.3
Management process	5. Responsibility	3.2, 7.1
	6. Rules and procedures	3.2, 3.3, 7, 13
	7. Recording and monitoring	5, 6, 7, 8, 9, 13
	8. Incentives and reward systems for sustainable development	6.2, 7.1
	9. Stakeholder engagement	4.4
	10. Product responsibility and innovation	5.1, 6.6, 7.3
Environment	11. Use of natural resources	5.1, 5.2, 5.3, 5.4, 5.5, 6.6
	12. Resources management	5.1, 5.2, 5.3, 5.4, 5.5
	13. Climate-related emissions	5.1, 5.2, 5.3, 5.5
Society	14. Employment rights	6.2, 6.4, 6.7, 6.8
	15. Equal opportunities	6.2, 6.4
	16. Employment	6.2, 6.3, 6.4, 6.5
	17. Human rights in the supply chain	3.3
	18. Strengthening local communities	6.7, 6.8
	19. Participation in initiatives and political influence	3.4, 7.4
	20. Prevention of and fight against corruption	7.1

Orchard following Rehabilitation of Land in the West Macedonia Lignite Centre





## 13. Independent Assurance Statement GRI 102-56

### **Independent Limited Assurance Report to Public Power Corporation S.A.**

We were engaged by the Board of Directors of Public Power Corporation S.A. (referred to as "the Company") to provide limited assurance on section 8 titled "Key Performance Data" of the Greek version of the sustainability report titled "Sustainability Report 2019" (referred to as "the Report") of the Company for the reporting period 1 January 2019 - 31 December 2019.

Management is responsible for the preparation and presentation of the Report in accordance with the Sustainability Reporting Standards of the Global Reporting Initiative (referred to as "GRI") as described in the Report and relevant internal guidelines as well, and the information and assertions contained within it; for determining the Company's objectives in respect of sustainable development performance and reporting, including the identification of stakeholders and material issues; and for establishing and maintaining appropriate performance management and internal control systems from which the reported performance information is derived.

Our responsibility is to carry out a limited assurance engagement and to express a conclusion based on the work performed for the agreed assurance scope, as described above. We conducted our engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000<sup>1</sup>. That Standard requires that we comply with applicable ethical requirements, including independence requirements and that we plan and perform the engagement to obtain limited assurance about whether the section "Key Performance Data" of the Report, referring to the period 1 January 2019 - 31 December 2019, is free from material misstatement. KPMG applies ISQC 1<sup>2</sup> and accordingly maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements. We have complied with the independence and other ethical requirements of the International Ethics Standards Board for Accountants' International Code of Ethics for Professional Accountants (including International Independence Standards) (IESBA Code), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

<sup>1</sup> International Standard on Assurance Engagements (ISAE) 3000: Assurance Engagements other than Audits or reviews of Historical Financial Information, issued by the International Auditing and Accounting Standards Board.

<sup>2</sup> International Standard on Quality Control 1 (ISQC 1): Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance and Related Services Engagements, issued by the International Auditing and Assurance Standards Board.

A limited assurance engagement on a sustainability report consists of making inquiries, primarily of persons responsible for the preparation of information presented in the sustainability report, and applying analytical and other evidence gathering procedures, as appropriate. These procedures included:

- Inquiries of management to gain an understanding of the Company's processes, on a sample basis, for determining the material issues for its key stakeholder groups.
- Interviews with relevant managerial staff on a sample basis, at Company level concerning sustainability strategy and policies for material issues, and the implementation of these across the business.
- Interviews, on a sample basis, with relevant Company staff responsible for providing the information in the section "Key Performance Data" of the Report, during which we were informed about the systems and reviewed, on a sample basis, the processes for information management, internal control and processing of the qualitative and quantitative information, at Company level. In this context, we tested on sample basis, the reliability of selected quantitative and/ or qualitative information (data and/ or text) of the section "Key Performance Data" of the Report.
- Interviews, where we reviewed on a sample basis, the procedures of developing and managing the content of the section "Key Performance Data" of the Report, as well as the current structure of the Corporate Governance in sustainability issues.
- Comparing the information presented in the section "Key Performance Data" of the Report within our agreed assurance scope to corresponding information in the relevant underlying sources to determine on a sample basis, whether the relevant information contained in such underlying sources has been included in the section "Key Performance Data" of the Report.
- Reading the information presented in the section "Key Performance Data" of the Report within our agreed assurance scope to determine on a sample basis, whether it is in line with our overall knowledge of, and experience with, the sustainability performance of the Company.

It is noted that for the financial indicators and data reported in the section "Key Performance Data" of the Report and specifically for the "turnover", the "total liabilities and equity", the "liabilities", the "equity", the "financial income", the "payroll cost including employee benefits and employer's social security contribution", the "earnings (losses) before taxes", the "long-term borrowings", the "short-term borrowings", the "supply market share (average annual)", and the "purchase of emission allowances (CO<sub>2</sub>)", KPMG's work was limited to the reliability check of the transfer of these data from the published / approved "Financial report 2019" or the "Annual report 2019" of the Company, to the section "Key Performance Data" of the Report. To obtain a thorough understanding of the Company's financial results and financial position, the 2019 audited Financial Statements should be consulted. In addition, the scope of our work did not include the review / testing of the operational effectiveness of the information systems used to collect and aggregate data in the section "Key Performance Data" of the Report. Finally, our work for the above assurance scope concerned the operations and activities of the Company (excluding its subsidiaries) in Greece and we have not been engaged to provide assurance over any prior reporting period data or information presented in the Report.

The extent of evidence gathering procedures performed in a limited assurance engagement is less than that for a reasonable assurance engagement, and therefore a lower level of assurance is provided.

Based on the procedures performed, as described above, nothing has come to our attention that causes us to believe that the section 8 titled "Key Performance Data" of the Report of Public Power Corporation S.A. for the period 1 January 2019 - 31 December 2019 is not, presented fairly, in all material respects.

Our assurance report is made solely to the Company in accordance with the terms of our engagement. Our work has been undertaken so that we might state to the Company those matters we have been engaged to state in this assurance report and for no other purpose. We do not accept or assume responsibility to anyone other than Public Power Corporation S.A. for our work, for this assurance report, or for the conclusions we have reached.

KPMG Advisors Single Member S.A.



George Raounas  
Partner  
Athens, 5 February 2021





