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The cover photos are from the PPC archive

Stratos HPP Reregulating Lake N. Plastiras Hydroelectric Power Plant - Artificial Lake Xirolimni Wind Farm, Sitia - Lassithi Prefecture Rooftop Photovoltaic System of the Energy Upgraded Facility of Kallithea Sales District - Facilities Management Awards 2017

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## 1

PPC S.A. is the largest industry in the electricity sector of Greece and has a leading position among public utility companies.

It pursues ongoing efforts towards sustainable operation and further development based on modern business terms. Its objective is to respond to the new development needs of the Greek economy while safeguarding the energy security of the country.

The Corporate Social Responsibility culture which has been well established within the company during the last decade, establishes at a strategic level the link between its financial and operational performance and the environmental concern and social welfare.

The company has adopted both international and national best practices and initiatives in order to ensure its sustainability and implements its planning in this crucial context by adopting the 17 Sustainable Development Goals of the United Nations which are at the heart of the 2030 Agenda.

PPC S.A. ensures thereby the planning of its maximum possible performance in all fields of its activity which have a direct or indirect impact on the economy, the quality of its services towards customers, the environment, the labour relations and the social concern, by cultivating relationships of mutual benefit with the society as a whole.

Moreover, PPC SA is implementing processes, policies and mechanisms for managing corporate risks and dealing with matters of regulatory compliance, human rights, security and confidentiality.

Aiming at continually improving its environmental performance and protecting natural resources, it integrates new environmental technologies in order to reduce  $CO_2$  emissions.

## MESSAGE FROM THE CHAIRMAN AND CHIEF EXECUTIVE OFFICER

Furthermore, within the new framework of the deregulated electricity market and the transformation of the energy system in the context of the targets for mitigating climate change, PPC assumes yet another crucial role: take the lead in the energy transition process by accelerating the retirement of lignite units. Decarbonization constitutes the new major goal-milestone of the company.

The decarbonization plan will include specific countervailable benefits and environmental provisions for the regions which currently depend on lignite. The objective is to convert these regions, with the tangible support of the European Union, into poles of attraction for new investments which will make use of both human resources and natural wealth.

The retired capacity must be covered by new investments focused on Renewable Energy Sources, hybrid power systems, as well as on natural gas, the "bridge-fuel" that will lead to energy transition. This is precisely why the next day for PPC will include major investments in RES, so that the Company will constitute the main pillar of transformation of the entire energy system of the country. The new PPC, socially conscious and consistent as it has always been, will continue to play a vital role, taking the lead and paving the way towards the future.

**Georgios I. Stassis**Chairman and Chief Executive Officer



## 2

## ABOUT THE REPORT

The Corporate Social Responsibility and Sustainability Report 2018 covers the period 01.01.2018 to 31.12.2018 and is PPC's eight sustainability report.

#### **Scope and Boundary**

The Report refers to the activities of the parent Company, namely the Public Power Corporation S.A. (hereinafter "PPC" or the "Company") in Greece. In addition, specific data referring to PPC Renewable S.A., as well as PPC's subsidiaries Lignitiki Melitis S.A. and Lignitiki Megalopolis S.A., are presented throughout the report, for the sake of completeness and comparability with previous years.

Where data have been revised, the reasons for such revisions are indicated.

#### **Defining content**

The Report seeks to present PPC's performance on Corporate Social Responsibility (CSR) and sustainable development issues, by examining the three core issues of Economy, Environment and Society. It is aimed at all the Company's Stakeholder groups, such as customers, shareholders and investors, associates, employees, institutional and public bodies, and local communities.

The Report has been prepared in accordance with the core option of the Global Reporting Initiative guidelines (GRI Standards). Reference is also made to PPC's contribution to the achievement of the 17 UN Sustainable Development Goals.

The process for defining the report's content was based on the GRI Standards guidelines, as well as the principles of inclusiveness, materiality, sustainability and completeness, and the related GRI Technical Protocols for Indicators are included. Moreover, the GRI - Electric Utilities Sector Supplement, the principles of the AccountAbility AA1000 standard on inclusiveness, materiality and responsiveness and impact, the criteria in the Hellenic Sustainability Code, Stakeholders' expectations and the characteristics of Greek society were also taken into consideration.

The material aspects included were ranked based on their impact on the Company and Stakeholders, based on the PPC Sustainability Materiality Analysis and contact with Stakeholders (as outlined in sections 4.3 and 4.4. of the Report).

Finally, the completeness of the aspects was assessed and the content of the Report was determined.

#### **Drafting the report**

The Corporate Social Responsibility Section, which falls under the Corporate Affairs and Communications Department, is responsible for collecting the data needed for this Report. The Report Steering Committee may also participate in the process. The role of this Committee, comprised of Management executives, is to facilitate workflows where the Corporate Social Responsibility Section fails to resolve issues.

The Corporate Social Responsibility Section follows the steps of the Sustainability Report Data Collection process that have been internally adopted by the Company. This process oversees the formulation of questions on sustainable development that are addressed to company Divisions/Business Units in charge. Also as part of process, answers are collected through electronic forms, which ease their uniform processing structure. The CSR team, plays a leading role in the data collection process. It is established by the CEO and comprises of the Divisions'/ Business Units' and Independent Unit's employees.

To collect the data required for this Report, updated data collection forms were used in order to improve the Report preparation process and to increase the quantity of information disclosed.

The Corporate Social Responsibility Section then groups the necessary data by information source and coordinates the Corporate Social Responsibility Team members as they gather the relevant information. The data collected are approved by the relevant Directors and sent to the Corporate Social Responsibility Section. The Section evaluates the data and may request clarifications, modifications or additional information where necessary. After the quantitative indicators are calculated, the data are consolidated (where required), and then the Report is drafted. The final draft of the Report is checked and approved by the Company's Senior Management.

The method of processing raw numerical data to cover composite indicators is described in the respective sections of the Report. Note no major changes have been carried out to data measurement and processing methods used compared to those employed in the previous report. Where differences arise, this is clearly stated in the relevant section.

#### 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.

In cases where it was impossible to collect homogeneous data from all PPC activities to allow general, comprehensive results to be produced, the Report presents selected data with clear reference to the operational unit involved.

#### External assurance

The Report was submitted for external assurance by an independent assurance provider in accordance with the International Standard on Assurance Engagements 3000 (ISAE 3000).

#### Your opinion counts

Your opinion as a reader of this Report is very important to us. We welcome your comments, questions, and any queries, clarifications or proposals for improvement that you may have.

PLEASE FORWARD YOUR COMMENTS TO:

Corporate Social Responsibility Section Corporate Affairs and Communications Department

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Corporate Website: www.dei.gr



## PPC CORPORATE PROFILE

PPC is the Greece's largest electricity producer and supplier and has its own lignite mines and power generation and distribution facilities.

#### **KEY FINANCIAL INFORMATION (€ mil.)**



4,594 Revenue | 688 Investments | 111 Net Revenue
608 Salaries and Employee Benefits, Including Employer Social Security Contributions

#### RENEWABLE ENERGY SOURCES (PPC Renewables S.A.)



23 Wind Farms

**28** Photovoltaic Power Plants

**13** Small Hydroelectic Power Plants



11,142MW Installed Capacity: 31% LIGNITE, 24% NATURAL GAS, 17% OIL, 28% HYDROELECTRIC 27,110GWh Net Energy Output: 41% LIGNITE, 23% NATURAL GAS, 17% OIL, 19% HYDROELECTRIC

#### MINES, GENERATION, SUPPLY



5 Mines | 12 Thermal Power Plants | 16 Hydroelectric Power Plants32 Autonomous and Local Power Plants



**6.920.424** Connections

**111** Sales Offices

14



REVENUES **€ 4,593.5 mil.** 

INVESTMENTS € 687.7 mil.

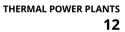
MINES **5** 







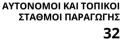








**₩** 







<sup>\*</sup> This includes PPC's employees working at PPC Renewables S.A.

#### 3.1 ACTIVITIES

The Public Power Corporation S.A. (PPC or the Company), trading as PPC S.A., is Greece's largest electricity producer and supplier. PPC has its own lignite mines, and 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 offering electricity in Greece.

The Company's registered offices are at 30 Chalkokondyli st., Athens, GR-10432.

PPC's main objective is to engage in commercial and industrial activity in the energy sector in both Greece and abroad. Just some of its main activities include designing, supervising, constructing, operating as well as maintaining and running power plants. In addition, the Company also supplies and sells electricity, operates mines, produces and procures fuels to generate energy, and outsources such activities to third parties. The Company's objectives also include setting up other companies, participating in joint ventures, and acquiring shares in other companies, whether Greek or foreign, and participating in businesses in general that have objectives related to those outlined above, or activities which are directly or indirectly associated with the PPC's objectives, or which seek to utilise the PPC's moveable or immoveable assets and to capitalise on its resources. In 2018, two new companies "Lignitiki Melitis S.A." and "Lignitiki Megalopolis S.A.", among others, the assets of Unit III of Megalopoli A TPP and Unit IV of Megalopoli B TPP into the subsidiary's tangible assets. Similarly, PPC contributed to its subsidiary "Lignitiki Melitis S.A." the assets of Meliti TPP's Unit.

In 2011, the Transmission business moved to the Independent Power Transmission Operator S.A. (IPTO). In 2017, the full ownership unbundling of IPTO S.A. was completed as provided for in articles 142 et seq. of Law 4389/2016.

In 2012 the Distribution business was transferred to the Hellenic Electricity Distribution Network Operator S.A. (HEDNO). After the spin-off, PPC retained ownership of the property and the assets of the Distribution Network and the Network of Non-Interconnected Islands.

Law 4001/2011 stipulates that HEDNO is responsible for suitably running, maintaining and developing the Distribution Network in light of private economy considerations, and therefore is responsible for ensuring that electricity reaches homes and businesses nationwide without interruption. Under that same law, an operator has been established for all networks nationwide (HEDNO), apart from certain small networks which may have their own operator. All network fixed assets remain the property of PPC, apart from the internal network at Athens Airport (which is owned and operated by the Airport itself).

As the owner of the network, PPC must ensure that the resources needed to develop the network in line with the plans prepared by HEDNO are available. The Law also safeguards PPC's financial rights as owner of the Network, including PPC's right to set general limits to the extent of its own borrowing, and the right to approve HEDNO's annual budget.

Today the Company is organised and operates in sectors as follows:

#### Mines

PPC's mining activities are managed by the Mines Business Unit. The mission of the Mines Business Unit is to explore, extract, manage and market lignite and other solid energy raw materials and to use the proceeds of its activities, to contribute to the energy security and economic development of the country, while respecting the environment and man.

#### Generation

The PPC Generation Business Unit is responsible for power generation. Its main task is to develop the generating capacity of PPC Thermal Power Plants and large Hydroelectric Power Plants (HPP) and to ensure the optimal running of those facilities, while complying with environmental requirements.

On mainland Greece most of the Company's generation capacity is concentrated in the north of the country close to large lignite mines which are the main source of fuel. On the Aegean islands, which are not connected to the National Transmission Network, our autonomous Power Plants are fuelled by oil. RES (renewable energy source) Plants are also in operation on both the Interconnected System and the Non-Interconnected Islands.

To maintain its position in the deregulated energy market, PPC's Generation Business Unit has made certain strategically important decisions. These include:



Construction of new power plants that incorporate cutting-edge technologies and optimal techniques



The phasing out of old, inefficient power plants



Speeding up completion of hydroelectric projects



Upgrading autonomous and local power plants on the Non-Interconnected Islands



Reducing CO<sub>2</sub> emissions

at PPC Reflewables S.A.

#### **GEOGRAPHICAL DISTRIBUTION OF POWER PLANTS**



#### Power plants' installed capacity per primary energy source

PRIMARY ENERGY SOURCE	INSTALLED CAPACITY IN 2016 (MW)	INSTALLED CAPACITY IN 2017 (MW)	INSTALLED CAPACITY IN 2018 (MW)		
Lignite	4,337 (36%)	4,337 (36%)	3,4071 (31%)		
Natural Gas	2,689 (22%)	2,689 (22%)	2,689 (24%)		
Oil	1,779 (15%)	1,771 (15%)	1,875 (17%)		
Hydroelectric	3,171 (27%)	3,171 (27%)	3,171 (28%)		
Total	11,976	11,968	11,142		

1. In 2018, the installed capacity of the subsidiaries Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A, that amounts to 930MW, is not included.

In 2018, the total installed capacity presented a 7% decrease compared to 2017. The decrease was due to the spin-off of the Megalopoli and Meliti Lignite Centres. In 2018, a small number of Units from the remaining Non-Interconnected islands was decommissioned and the new 119MW Southern Rhodes Thermal Power Plant in Kattavia began to operate, resulting in the increase of the Oil Units' capacity by 104MW, compared to 2017.



#### RES installed capacity per primary renewable energy sources\*

PRIMARY ENERGY SOURCE	INSTALLED CAPACITY IN 2016 (MW)	INSTALLED CAPACITY IN 2017 (MW)	INSTALLED CAPACITY IN 2018 (MW)
Wind	66,66 (54%)	66,66 (54%)	69,14 (54%)
Solar	1,32 (1%)	1,32 (1%)	1,32 (1%)
Hydroelectric (SHPP)	55,22 (45%)	55,22 (45%)	57,82 (45%)
Total	123,2	123,2	128,2

<sup>\*</sup> The Installed Capacity described above refers explicitly to PPC Renewables' installed capacity, excluding the Installed Capacity to associates, where PPC Renewables' holds a minority stake.

#### **INSTALLED CAPACITY** 11,142MW





LIGNITE 31%



NATURAL GAS 24%



OIL 17%



HYDROELECTRIC 28%

#### INSTALLED **CAPACITY** 128.2MW





WIND **54%** 



SOLAR 1%



HYDROELECTRIC (SHPP) 45%

#### **NET POWER OUTPUT** 27.110GWh

LIGNITE 41%

HYDROELECTRIC 19%



#### **NET POWER OUTPUT** 259**GWh**



**SOLAR 1%** 



HYDROELECTRIC (SHPP) 52%



#### Power plants' net power output per primary energy source

PRIMARY ENERGY SOURCE	NET POWER OUTPUT IN 2016 (GWh)	NET POWER OUTPUT IN 2017 (GWh)	NET POWER OUTPUT IN 2018 (GWh)
Lignite	14,898 (50%)	16,387 (51%)	11,1111 (41%)
Natural Gas	5,603 (19%)	7,656 (23%)	6,362 (23%)
Oil	4,638 (15%)	4,827 (15%)	4,586 (17%)
Hydroelectric	4,843 (16%)	3,456 (11%)	5,051 (19%)
Total	29,982	32,326	27,110

1. In 2018, the net power output of the subsidiaries Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A. amounted to 3,796 GWh.

In 2018, the total net power output of all Plants operated by PPC's Generation Business Unit was 27.11TWh, showcasing a decrease of 16% compared to 2017 (32.33TWh). The power output decrease is attributed to the spin-off of the Megalopoli and Meliti Lignite Units as well as the natural gas Plant's decrease in energy generation by 1.29TWh (17%). On the contrary, the Hydroelectic Power Plants' output showcased an increase of 1.59TWh (46 %) due to the adverse weather events which took place in the spring of 2018 and the mandatory use of hydroelectric generation for flood management safety purposes.



#### Power plants' net power output per primary renewable energy source

PRIMARY ENERGY SOURCE	NET POWER OUTPUT IN 2016 (GWh)	NET POWER OUTPUT IN 2017 (GWh)	NET POWER OUTPUT IN 2018 (GWh)	
Wind	142 (52%)	132 (51%)	122 (47%)	
Solar	2 (1%)	2 (1%)	2 (1%)	
Hydroelectric (SHPP)	129 (47%)	124 (48%)	135 (52%)	
Total	273*	258	259	

<sup>\*</sup> The figure is disclosed in PPC's financial statements for 2016. PPC Renewables has disclosed 308 GWh in its own financial statements. The difference is attributed to corrections, that were based on extra-accounting information, at the Small Hydroelectric Power Plants (164 GWh compared to 129 GWh).

The availability rates and average performance rates of PPC facilities are shown in the table below. The efficiency rate is affected by the dispatching of the plants and by the exploitation rate.

	20	16	20	17	20	18	
FACILITIES	AVAILABILITY (%)*	AVERAGE EFFICIENCY (%)**	AVAILABILITY (%)*	AVERAGE EFFICIENCY (%)**	AVAILABILITY (%)*	AVERAGE EFFICIENCY (%)**	
INTERCONNECTED SYS	STEM						
Lignite plants	77.39	31.13	70.45	30.72	76.42 <sup>1</sup>	30.89 <sup>2</sup>	
Oil plants	-	-	-	-	-	-	
Natural gas plants	66.71	49.60	81.30	50.82	70.15	50.79	
Total	73.30	34.67	74.52	35.15	73.65	36.03	
CRETE							
Oil plants (LFO)	83.36	34.37	82.79	34.10	82.22	34.05	
Oil plants (diesel)	87.69	33.08	78.42	32.67	79.81	32.76	
Total	85.77	34.04	80.32	33.72	80.88	33.70	
RHODES							
Oil plants (fuel oil)	86.09	36.30	82.91	36.65	76.67	37.01	
Oil plants (diesel)	96.74	28.71	96.89	28.52	88.15	28.65	
Total	91.65	34.90	90.12	34.86	81.49	35.21	
OTHER NON-INTERCO	NNECTED ISLA	ANDS					
Oil plants	88.56	39.99	87.76	40.02	89.79	40.14	

- \* 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 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 Plants using a specific fuel. Likewise, 'total' relates to the weighted average efficiency of all PPC Thermal Plants.
- 1. The average availability of the lignite Units of Liginitiki Megalopolis S.A and Lignitiki Melitis S.A. for 2018 amounts to 68.37% and 64.92% respectively.
- 2. The net efficiency of the lignite Units of Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A. for 2018 amounts to 26.98% and 31.43% respectively.



#### Supply

The aim of the General Supply Business Unit is to present the modern face of PPC, by making use of its esteemed reputational "inheritance" of being the largest energy provider in Greece by:

- building on its values with integrity and consistency,
- modernizing the Company's procedures to reflect international trends, the customers' current needs and at the same time stay attuned with the regulatory framework in Greece's new liberalised electricity market,
- promoting the sales of electricity and other new products and services (i.e. e-bill, energy services),
- sustaining and cultivating PPC's trust relationships with its customers,
- improving PPC's customer service quality and response time.

The table below shows the various categories of medium and high voltage connections available from the Company and the corresponding number. Out of a total of 6,920,329 connections, 78% are household connections and 16% are business.

MEDIUM AND LOW VOLTAGE CONNECTIONS	No. OF CONNECTIONS IN 2016	No. OF CONNECTIONS IN 2017	No. OF CONNECTIONS IN 2018
Residential	5,711,928	5,608,069	5,406,273
Agricultural	206,213	199,149	198,162
Business	1,202,546	1,167,024	1,117,725
Industrial	52,350	47,781	43,255
Public lighting (road & squares)	107,214	107,398	107,844
Public authorities	46,635	46,563	46,972
Traction	98	98	98
Total	7,326,984	7,176,082	6,920,329

In addition to low and medium voltage customers, in 2018, PPC also served 95 high voltage connections.

At the end of 2018, PPC had 111 sales offices, 19 of which were located in Attica, 41 in the North of Greece and 51 in the South of Greece. Additionally, there are 7 customer service points, that handle the commercial issues of small and medium-sized companies in Athens, Patra, Tripoli, Larissa, Thessaloniki, Kozani and Alexandroupoli.

#### 3.2 SHAREHOLDER STRUCTURE

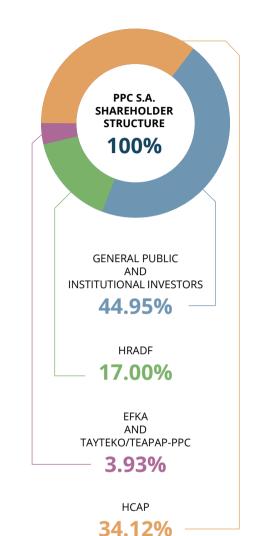
On 31.12.2018, PPC's share capital was estimated at € 575,360,000, divided into € 232,000,000 ordinary shares with a nominal value of € 2.48 each.

SHAREHOLDER STRUCTURE (31.12.2018)	ΠΟΣΟΣΤΟ
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%
Total	100.00%

- 1. On April 8th 2014, the Greek Interministerial 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 Law 3986/2011. On April 9th 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 Apil 11th 2014. A transfer of 79,165,114 PPC shares (namely 34.123%) by the Hellenic Republic to the HCAP was completed on March 20th 2018, by law and without consideration, according to para. 20, article 380 of L. 4512/2018, as para. 1 of article 197 of L. 4389/2016 was amended. Consequently, HCAP participates directly with 34.12% in PPC's share capital and indirectly with 17% through the HRADF, which is a subsidiary of HCAP. The total voting rights of HCAP amount to 51.12%. The Hellenic Republic owns 100% of voting rights in HCAP. Based on the above, the total percentage of the Hellenic Republic remains indirectly at 51.12%.
- 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 the "Silchester International Investors LLP" holding of 32,024,558 shares (13.8% of PPC voting rights) as of 08.12.2011, 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 Investors Tobacco Free International Value Equity Trust and The Calleva Trust.

On 31.12.2018, PPC was not aware of any shareholders, other than the HCAP, HRADF, the Silchester International Investors LLP, the Horizon Growth Fund N.V. and jointly EFKA and TAYTEKO/TEAPAP-PPC (PPC's Pension Funds), which held directly an amount greater than or equal to 3% of its share capital.

More information is available in the 2018 Annual Report.



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#### 3.3 HOLDINGS IN SUBSIDIARIES

The following table presents the companies that were wholly owned by PPC on 31.12.2018.

SUBSIDIARY		BUSINESS
PPC RENEWABLES S.A.		Renewable Energy Sources (RES)
HEDNO S.A.	*	Management, development, operation και maintenance of the Hellenic Electricity Distribution Network (HEDN)
LIGNITIKI MELITIS S.A. LIGNITIKI MEGALOPOLIS S.A.		Electricity supply
PPC FINANCE PLC	ЖÍ	Financial services
PPC ELEKTRİK TEDARİK VE TİCARET ANONİM ŞİRKETİ PPC ALBANIA Sh.A EDS DOO SKOPJE		Electricity supply



#### 3.4 CORPORATE GOVERNANCE FRAMEWORK

PPC, following the approval of the Board of Directors, implements a Code of Corporate Governance, that lays out its corporate governance framework and guiding principles.

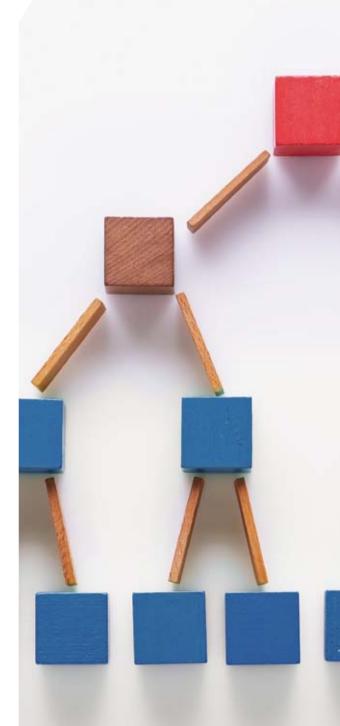
For PPC, complying with corporate governance principles is a key commitment and priority. Since the Company aims to ensure that it is optimally organised, managed and run, that there are increased levels of transparency in its relations with shareholders and generally that the Company's interests are safeguarded, it has adopted and implements

a Code of Corporate Governance. This Code provides a framework of principles and procedures which the Corporate Governance System of the Company follows as regards management, shareholders, internal audits and risk management.

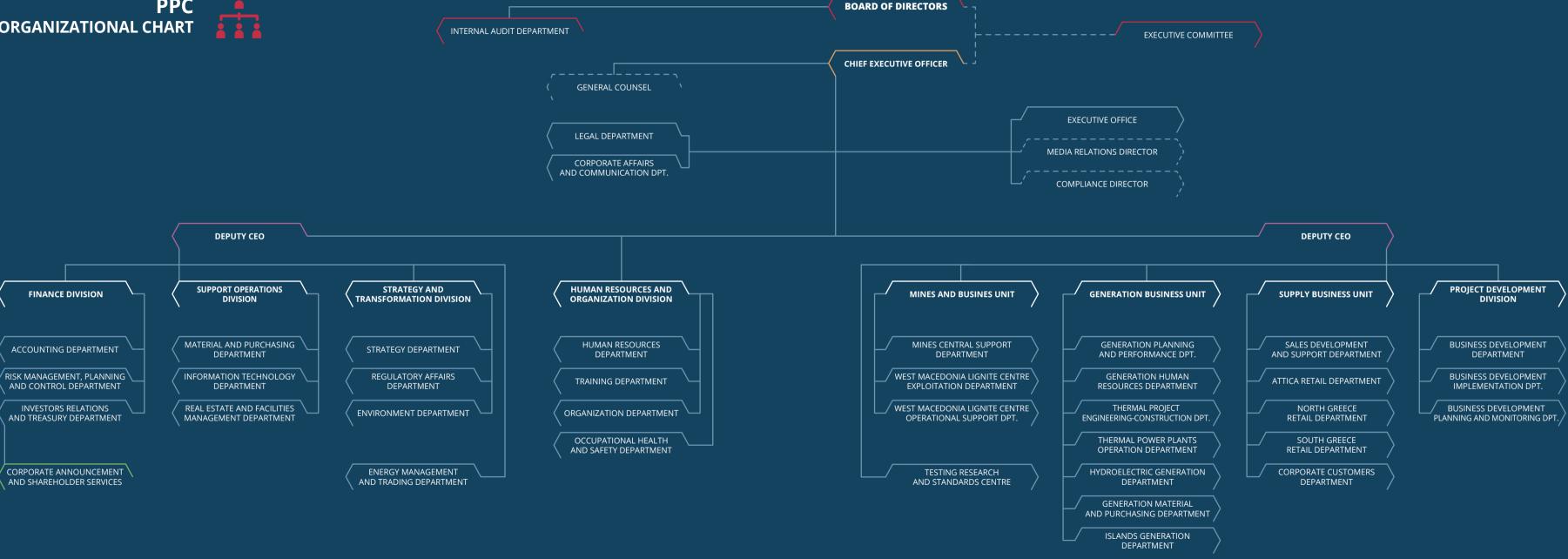
The Code of Corporate Governance is available on the PPC website: www.dei.gr

#### 3.5 ADMINISTRATIVE ORGANIZATION

In 2018, there weren't any important organizational changes, aside from some departments' reshuffling within the organisation and the necessary restructuring following the spin-off of the two lignite subsidiaries.







## BOARD OF DIRECTORS 11 MEMBERS

Elected by the Company's General Meeting of Shareholders (including the CEO)



Elected by direct, general ballot (representing the PPC employees)



#### 3.6 GOVERNANCE STRUCTURE

PPC's General Meeting of Shareholders is the supreme authority of the company and has the right to take decisions on any issue affecting the Company.

Apart from the General Meeting of Shareholders, the Company's governance bodies include:

- The Board of Directors
- The CEO
- The Executive Committee

Summary information is provided below about the governance bodies and the procedures that applied on 31.12.2018. Detailed information about the governance bodies is available in the 2018 Annual Report.

#### **Board of Directors**

The Board of Directors (BoD) is PPC's supreme governing body. The BoD lays down the Company's strategy and its development policy, while also overseeing and reviewing management of its assets. Upon recommendation of the CEO, the BoD approves:

- the Strategic Plan that outlines the strategic goals for achieving the Company's objectives,
- the Company's Business Plan for the next 3 to 5 years, that provides further details about the objectives set in the Strategic Plan for each year.
- the methods for implementing the Strategic Plan and the Business Plan for each year,
- the Company's annual budget.

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

- Nine (9) members, including the CEO, are elected by the Company's General Meeting of Shareholders. The Board elects its Chairman and Vice Chairman among those members.
- Two (2) members representing the PPC employees are elected by direct, general ballot after PPC's most representative employee trade union is notified.

On 31.12.2018, the BoD consisted of 10 men and 1 woman, all aged over 50.

NAME	POST	EXECUTIVE	NON-EXECUTIVE MEMBER	INDEPENDENT	AUDIT COMMITTEE	REMUNERATION COMMITTEE	COMMITTEE FOR THE EXAMINATION OF CANDIDACIES OF MEMBERS OF THE BOARD OF DIRECTORS	COMMITTEE FOR THE GREENHOUSE GAS EMISSIONS ALLOWANCES	CORPORATE SOCIAL RESPONSIBILITY SUPERVISION*
Pananagiotakis Emmanouil	Chairman of the BoD and CEO	~	-	-	-	-	-	-	-
Georgios Andriotis	Vice President	-	~	~	~	-	-	~	~
Demetrios Vassilakis	Member	-	~	~	-	~	~	-	-
Georgios Venieris	Member	-	~	~	~	~	-	-	-
Pantelis Karaleftheris	Member and Represantive of Employees	-	~	-	-	-	-	~	-
Christos Papageorgiou	Member	-	~	~	~	-	-	~	-
Lazaros Stathakis	Member	-	~	-	-	-	-	-	-
Dimitrios Tzanninis	Member	~	-	-	-	-	-	-	-
Frangiskos Topalis	Member	-	~	~	-	-	~	-	-
Maria Founti	Member	-	~	~	-	~	-	-	~
Nikolaos Fotopoulos	Member and Represantive of Employees	-	~	-	-	-	-	-	-

<sup>\*</sup> Up until 17.12.2018, the members responsible for the oversight of the Corporate Social Responsibility Section were Mr. Panagiotis Alexakis and Mr. Aris Vatalis.

#### CEO

PPC's CEO is elected by the General Meeting of the Shareholders and has a 3-year term of office:

- He is the PPC's Chief Executive Officer.
- He supervises all divisions, business units and departments and manages their operations.
- He decides on how the Company is to be organised, within the context laid down by the Articles of Incorporation and the relevant decisions of the Board of Directors
- He takes the necessary decisions in light of the provisions governing the operation of PPC ,the approved programmes and budgets, as well as the Strategic Plan and the Business Plan.
- He represents the Company within the limits of his powers as specified by the Articles of Incorporation and the relevant decisions of the Board of Directors.

#### **Executive Committee**

The Executive Committee is composed of the CEO, who chairs it, the Deputy CEOs, if any, and the Chief Officers. The Executive Committee meetings may also be attended by the Company General Counsel, at the CEO's discretion.

The Executive Committee operates in accordance with the decisions of the Board of Directors, the Articles of Incorporation and the Company's operating rules , ensuring the necessary degree of collective responsibility when handling PPC administrative and operational issues and consistency in its own operations.

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

At Board level, an Audit Committee, Remuneration Committee and a Committee for the examination of candidacies of members of the Board of Directors have been set up, following the implementation of the current legislation on corporate governance and the corporate governance best practices. At the same time, the Board has set up a Committee for the greenhouse gas emissions allowances.

The Audit Committee consists of at least three non-executive members of the Board of Directors; the majority of which are independent. The members of the Audit Committee, as a whole, have proven substantial knowledge of the activities of the Company while at least one member shall be inactive or retired chartered auditor-accountant or shall

have sufficient knowledge of accountancy and auditing. The members of the Audit Committee are appointed by the General Meeting and their powers and duties are as follows:

- 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 system, 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 issues relating to the selection and continued objectiveness and independence of the certified auditors, especially in relation to other services provided by them to PPC and its subsidiaries.
- The responsibility for the selection process of chartered auditors-accountants or audit firms.

The Company's Remuneration Committee consists of three non-executive members of the Board of Directors, out of which at least two are independent. The Remuneration Committee is responsible for examining and submitting proposals to the BoD to set any remuneration and pay for Board members, as well as for the Corporation's senior executives, in this case with the involvement of the CEO.

The Committee for the examination of candidacies of members of the Board of Directors according the Articles of Incorporation examines possible impediments or incompatibilities, as well as the criteria of independence (especially regarding Independent Members) regarding the submitted candidacies for the appointment of Members of the BoD.

The Committee for the greenhouse gas emissions allowances supervises the implementation of its decisions with respect to (a) the strategy for the supply of emission allowances and (b) the observance of the established procedures, as well as the operational policy for emission allowances.

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#### 3.7 CONFLICT OF INTEREST

In order to avoid any conflict of interest, PPC implements a series of procedures which ensure that conflict between the interests of members of the Board of Directors, of executives and other employees and the Company is avoided.

More information on how conflict of interest is avoided is included in the 2018 Annual Report.

## COMPANY'S DEPARTMENTS AUDITS (2018)

NEW AUDITS
WERE CARRIED OUT



WERE COMPLETED WITHIN 2018

WERE COMPLETED IN THE BEGINNING OF 2019



REMAIN PENDING



HAD COMMENCED IN 2017

#### 3.8 AUDIT AND REGULATORY COMPLIANCE

PPC has an Internal Audit Department (IAD) 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.

In 2018, in exercising its powers to monitor the correct running of the Internal Audit Department, the Audit Committee held 22 meetings with staff of the Internal Audit Department. The agenda for those meetings focused on briefing the Audit Committee about the findings and results of audits that the Internal Audit Department had carried out, and issues relating to the operation of the Department.

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 Committee then submits the audit schedule to the Board of Directors for approval.

In 2018, 49 new audits were carried out on the Company's departments, involving compliance checks, as well as administrative, financial, special forms of audits and IT audits. From the aforementioned audits, 28 were completed within 2018 and 10 in the beginning of 2019, while 11 remain pending. Additionally, within 2018, 35 audits that had commenced in 2017, were completed.

In 2018, PPC's Board of Directors approved the new Code of Conduct, which was posted on the Company's website both in Greek and in English.

The Company, aiming at further enhancing its corporate safeguards for regulatory compliance, is constantly setting new targets, including:

- Developing an awareness and training program regarding the Code of Conduct for PPC's executives and personnel in collaboration with PPC's Training Department.
- Developing and gradually implementing "Business Ethics and Compliance Program", in accordance with the international best practices, principles and rules.
- Developing a communication procedure for Regulatory Compliance and Business Ethics issues, and managing a suitable channel for the submission of complaints and general non-compliance reports.

#### 3.9 RISK AND CRISIS MANAGEMENT

#### **MATERIAL TOPIC: RISK / CRISIS MANAGEMENT**

Risk/crisis management was primarily selected as a material topic mainly by the Company's Management, employees, shareholders and investors, partners and suppliers, competitors, and by non-governmental/non-profit organisations. PPC's Management has made concerted efforts to timely recognise, prevent and manage risks and crises. PPC's Board of Directors then examines the key risks PPC faces and refers to them in detail in the Board of Directors' Annual Financial Report.

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 implementation of its strategy and achievement of its objectives. The 2018 Annual 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, and laws and regulations pertaining to occupational health and safety, among others. The 2018



Annual Report also lists risks which have been identified related to climate change and to CO<sub>2</sub> trading rights, hydrological conditions, laws and regulations concerning the environment, and natural disasters.

PPC established the Risk Management, Planning and Control Department but Risk Management Unit has not been staffed yet, as a result of the lack of experienced staff due to constraints in recruitment, as well as due to other adverse factors mentioned in the previous section. So far its line Management, on a case by case basis, is engaged in identifying and primarily assessing risks in order to submit recommendations to the Board of Directors regarding the design and approval of specific risk management procedures and policies.

The Energy Management Department has drawn up procedures to manage the wide range of risks associated with the performance of its mission. Those procedures seek to address:

- Operational risks related to faithful observance of procedures, avoidance of mistakes, inspection 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 Financial 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.

PPC has purchased a cutting-edge Energy Trading and Risk Management (ETRM) system, which aims to support the Company's business activities in the Electricity Market and to minimise its operational risks. The ETRM is currently being updated according to the new Electricity Market's requirements (Target Model).

PPC has also developed and implemented a process to identify Sustainable Development Fundamental Topics, in order to identify and prioritise its business impacts/risks based on the triptych of the fundamental principles of Corporate Social Responsibility (economy, society and environment). This process is analysed in more detail in section 4.3.

#### **Energy Management Risk Mitigation**

In the context of the aforementioned ETRM's installation, the Energy Management Department has acquired 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.

In addition, PPC is developing an in-house software for the stochastic compilation of its energy balances (Monte Carlo), in order to be able to conduct probabilistic analysis of the energy and economic parameters of its energy balance. Through the software, PPC shall be able to quantify the relevant risk indicators and design the necessary hedging strategies. At the same time, PPC monitors the market for the identification of new software, that could meet its existing and future needs regarding its energy products' Risk Management.

The Energy Management Department holds a regular procedure (on a monthly basis) for monitoring and updating its energy balance. Based on the forecasts of the energy balance, PPC adjusts its strategy and planning to adequately secure its fuel requirements (lignite, natural gas), its CO<sub>2</sub> emission allowances and electricity imports, and the utilisation of the reservoirs' available water reserves in the most efficient techno-economic way.

In particular, taking into consideration the management of its electricity imports and in order to counterbalance the risks associated with electricity quantities and prices, PPC proceeds with securing the largest share of incoming imports through year-long agreements at a guaranteed price. At the same time, PPC takes part in the annual public tender procedures regarding the acquisition of interconnection options, based on the System Marginal Price (SMP) from the established energy balance scenarios.

Aiming to ensure the supply of electricity to its customers, PPC continues to participate in the Wholesale Electricity Market and has established the appropriate procedures, according to the requirements of the ISO 9001:2015 Quality Management System, to forecast customer demand on a daily basis and submit the Load Declaration. The review/recertification of the aforementioned procedures will be carried out in 2019.

Regarding the risk management procedure of the emission allowances' increasing price and the regulatory framework change, PPC systematically monitors the markets and developments at European level and has adopted a market policy, that partly offsets the risk of price change. At the same, an automatic mechanism (clause) exist, that passes on the CO<sub>2</sub> allowances' price increases to the Low, Medium and High tariffs. However, an important part of the indirect risk (increase of System Marginal Price, reduction of the lignite plants' participation in the Wholesale Electricity Market) cannot be offset and therefore, any increase in the price of the allowances may (directly or indirectly) affect the Group's financial position, operating results and liquidity.





#### 3.10 PERSONAL DATA PROTECTION

PPC updated its Information Systems Security Policies, in alignment with the General Data Protection Regulation (GDPR 679/2016). In that context, PPC proceeded with informing its top Management and employees regarding their rights and responsibilities, as outlined by the GDPR. In addition, PPC evaluated its level of maturity and compliance with the Regulation. Having established a specific strategy for ensuring the protection of its customers', employees' and suppliers' personal data, the Company implemented, within 2018, a series of actions regarding the briefing, training and awareness of its employees and customers. More specifically:

- Briefing of PPC's employees through a corporate e-mail and the Company's portal, which included a special section referring to the GDPR.
- Issuance and distribution of a manual to the Supply Business Unit's employees, which included the customers' rights and the Company's responsibilities in relation to the processing of personal data.
- Participation in National and European drills for countering cyber-attacks.
- Participation in conferences regarding Information Security Systems and personal data protection.
- Certification for executives regarding Information Security Systems and personal data protection.
- Informing its customers, through its website on the type of personal data that PPC collects, the way that the data is handled and handed over to third parties, as well as on their rights regarding the processing of their personal data.

In order to further strengthen its information security and data protection safety procedures, PPC runs an encryption procedure for its databases, a Security Information and Event Management (SIEM) System and an Information Security Management System in accordance with the ISO 27001 Standard.

In addition, PPC, in cooperation with its Legal Department, updated the Supply Agreements' terms that pertain to the use of personal data and proceeded to the drawing up of a consent form, that is signed by its customers at PPC's Sales Offices, as well as by "e-bill" users.

The procedure for managing customers' requests, with regard to their personal data, is carried out through the Company's website. By way of example, in 2018, PPC's Data Protection Office received 16 customers' requests regarding their personal data.

#### 3.11 ENERGY MARKET OPERATION AND PUBLIC POLICY

#### MATERIAL TOPICS: REGULATORY ISSUES AND NEW ENERGY MARKET CONDITIONS

Management and Company's competitors have recognised PPC's involvement in managing regulatory issues as a material topic of its operation. Further market deregulation has created uncertainties and challenges for PPC and the Company considers that the need to generate results when it comes to regulatory issues will intensify.

The Management, the shareholders and investors of PPC identify managing new energy market conditions as a material topic. Rapid developments in the energy market in Greece, coupled with the country's commitments under the MoUs which are bringing about changes in Greece's energy landscape, have made Management and shareholders and investors more interested in the role the Company will play in the emerging energy and economic environment. PPC's goal continues to be to ensure a competitive environment, having as for pillar the benefit of customers.

Greece's electricity sector is regulated in accordance with the European regulatory framework which has been integrated into Greek law and consists of various laws, Presidential Decrees, Ministerial Decisions and decisions of the Regulatory Authority for Energy that have the force of law.

The regulatory framework outlines PPC's operation in the energy markets and affects its dealings with competitors and customers, as well as the business decisions taken in relation to the Company's development and its planned investments in infrastructure, technology and services. PPC responds to the regulatory framework's challenges, and to achieve this it:

- · Collaborates with the Regulatory Authority for Energy, Market Operators and the institutional bodies of the State and the European Union, to formulate policies that will foster investments and enhance competition.
- Puts forward its view in public debate before national and European Regulatory Authorities, institutional bodies and other authorities, by continuously and actively participating in the relevant discussions.
- · Ensures that it adjusts its operation according to its regulatory obligations, bearing always the Company's interests in mind.







• Competes for equal treatment by the institutional bodies and Market Authorities and for the withdrawal of any existing regulatory distortions in areas where competition has been developed adequately.

As part of the development of its corporate strategy, PPC has set up a special organizational unit, namely the Regulatory Affairs Department, to effectively manage all of the above actions.

The Regulatory Affairs Department is responsible, among others, for the monitoring of the regulatory framework that governs the energy market and the Group's activities in general, the estimation of regulatory risks, the assurance of regulatory compliance, the dispersion of information, views, analysis and other estimations. In cooperation with other organizational units of the Company, the Department aims to promote PPC's views and successful representation before the regulatory institutions and bodies.

PPC, as the main electricity supplier in Greece, is involved in shaping and promoting the country's public policy on energy issues, publishing its positions, through Management speeches and announcements, press releases, sending top executives to international and national conferences, engaging in discussions with agencies, attending events and participating in public consultations. PPC's executives frequently take part in public consultations, expressing the Company's views.

Additionally, by the early period of 2017, PPC has established a Representation Office in Brussels, reporting to the Regulatory Affairs Department. Its main objective is to ensure the continuous, reliable and detailed Company's briefing on all the imminent updates of the European Legal Framework, as well as to promote its positions, in cooperation with the competent Services. From the first days of its operation, the Office has been active and has meaningfully intervened, during the negotiations, in the new Directive for the Emissions Trading System (ETS 2021-2030), as well as in the negotiation for the new package of the Clean Energy Protocol (CEP) and especially for the environmental inclusion criteria of PPC's lignite Units in Capacity Remuneration Mechanisms (CRM).

It is noted, that during the negotiations of the EU Emissions Trading System (ETS) Directive, due to PPC's intense mobilization, Greece managed to achieve equal treatment with regard to low carbon emission technology funding, among all Member States with low per capita salary, from the European Parliament. The funding will be provided through the Modernization Fund of European Union Emissions Trading System, for the period 2021-2030. As a result of the implemented directive, substantial funding was collected for the decarbonization of energy in the Greek islands.

Over recent years PPC has repeatedly reiterated its arguments about the need to rationalize the electricity market, to ensure it operates competitively in a truly deregulated environment for thebenefit of consumers.

PPC has argued for the need to set up a modern electricity market that:

- operates in a transparent, predictable manner to attract new investments when and where needed,
- bolsters competitiveness for the benefit of consumers and the national economy and
- effectively contributes to secure the energy supply of Greece in the long run.

PPC monitors the developments in the natural gas market, the alternative "green" fuels and the energy markets' integration. A great focus has been given to the monitoring of the new, large legislative package, which was initially deployed as "Gas Package" and is currently being reformed as "Decarbonisation Package", referring to the limitation of use of natural gas and its replacement with low CO<sub>2</sub> emitting fuels (hydrogen, biogas, synthetic fuels).

Greece's electricity market is changing and is adjusting to the reforms imposed by the European Union. Already with Law 4425/2016 (as amended by Law 4512/2018 and Law 4546/2018) the rearrangement of the Greek electricity market has been institutionalised, in accordance with the European legislation on the establishment of the single European energy market, especially for its transition to the "Target Model". The aim is to achieve an interconnected European market with converging prices for all member states. In the context of this rearrangement, more Energy Markets (Electricity Market, Natural Gas Market, Environmental Market) and/or Energy Financial Markets are expected to be managed and operated, by the Hellenic Energy Exchange, which was established and currently operates as an anonymous company (S.A.). With regard to electricity, it is specified that electricity trading taking place at the Interconnected Electricity System, will be processed at the Energy Financial Market, the Day-Ahead Market, the Intra-Day Market and the Balancing Market.

The Regulatory Authority for Energy (RAE) has already approved the regulations for the Balancing Market, the Day-Ahead Market and the Intra-Day Market, while the Regulation



MODERNIZATION
FUND
EUROPEAN
UNION
EMISSIONS
TRADING
SYSTEM
2021 - 2030

The Representation Office of the Company at Brussels

#### **TARGET MODEL**

#### **ENERGY EXCHANGE MARKET**







on the Clearing of Transaction of the Day-Ahead and Intra-Day Market is expected to be approved by the Energy Exchange Clear S.A (EnExClear) and the Energy Financial Market Rulebook (Derivative Market).

The establishment of the Energy Exchange, for which PPC has expressed positive stance, is the prominent body that spurs the modernization of the Greek energy markets, in view of Greece's efforts to join the unified European electricity market. The new energy financial market is expected to attract investments, due to its uniform and clear-cut operating rules, that also exist in the other European markets. Hence, it will create the necessary liquidity as a result of the increase of the transaction volume and of the interest expressed by companies from the entire South-East Europe.

The NOME (Nouvelle Organisation du Marché de l' Electricité) auctions, which were implemented by Law 4336/2015, imposed on PPC the obligation to offer through the wholesale market's auctioning, a precise amount of electricity at a low regulated price based on PPC's lignite and hydroelectric generation cost. The aim is the rearrangement of market shares in the electricity retail market through the steady reduction of PPC's shares below 50% by 2020. In 2018, the Company made available the quantities of electricity, as provided for by the regulatory decisions. However, its market share in the retail market at the end of 2018, amounted to 80.29% compared to the enacted target of 62.24%.

#### 3.12 NEW MARKETS AND INVESTMENTS

#### **MATERIAL TOPIC: NEW MARKETS AND INVESTMENTS**

Both PPC and stakeholders have identified and agreed that key material topics for the Company's sustainable development are the investments being made and its expansion into new markets. Generally speaking, PPC's strategic goal (which it is working intensively on) is to offset domestic losses due to the market liberalisation measures imposed on it, by expanding into fresh markets and capitalising on business partnerships.

Greece's geographical location, its good relations with the neighbouring countries and the technical and construction capabilities of Greek businesses are major advantages that need to be utilised as much as possible. PPC aims to achieve a leading role and

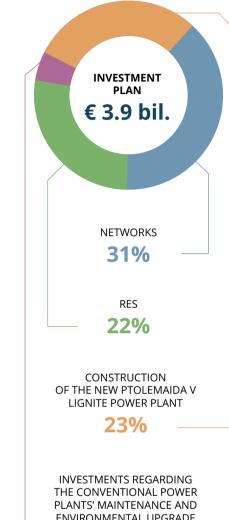
lead its penetration in the surrounding markets and for this reason it is transformed from an electricity generation and distribution company into a company that develops and offers composite energy products and services focused on the fulfillment of its customers' energy needs.

As a consequence, continuous efforts are being made to identify potential new business activities in Greece and abroad, including fields which have traditionally been outside PPC's core operations. More in particular, 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 (I-V) or Special Purpose Vehicles, are being investigated. These partnerships are expected to contribute towards the necessary technical know-how and secure the necessary funds for activities such as: electromobility, green energy services in docks and ships, faster penetration to Renewable Energy Sources/energy storage, energy sector equipment maintenance and repair services, participation in tendering procedures for awarding energy related projects, energy conservation services and penetration in the natural gas market.

In order to expand its operations, PPC has set up a wholly owned electricity supply company in Turkey, which since 2014 has been involved in the Turkish wholesale market and in cross-border trade. Another subsidiary has also been set up in Bulgaria (owning 85% of the share capital) in partnership with the Swiss firm ALPIQ (which holds the remaining percentage). The subsidiary has been operating on Bulgaria's wholesale market and in cross-border trade since the end of 2015. These companies will be used as valuable building blocks towards further expansion into neighbouring markets. In this context, in 2016, PPC established a subsidiary company in Albania (PPC Albania), which main mission is to explore investment and other business opportunities in Albania, as well as in the Western Balkans countries.

On April 2018, PPC acquired Energy Delivery Solutions DOO (EDS), a power supply company having its seat in the Republic of North Macedonia. This acquisition is part of PPC's strategy to expand worldwide its business activities, particularly in the Balkan region, where it seeks to become a leading force in view of the forthcoming integration of the energy markets as promoted by the European Union.

An example of a company partnership, seeking new opportunities, is the Partnership Contract signed by PPC with General Electric. The two companies will examine their



ENVIRONMENTAL UPGRADE





23 WIND FARMS



28 PHOTOVOLTAIC POWER PLANTS



partnership for the provision of services of operation, maintenance, leasing, training, fault diagnosis and repair of gas turbines, steam turbines, generators, boilers and other equipment used either in power plants or for industrial purposesin companies including EPC project contractors and service providers in Greece and Europe with the possibility to expand this partnership in other regions as well.

In 2018, PPC Group proceeded to investments amounting to € 747 million, in order to reinforce and modernise its facilities. For the period 2018-2020, PPC's strategic priorities are supported by an investment plan of approximately € 3.9 billion, out of which 50% is allocated to PPC's Networks and RES projects (31% to the Networks and 22% to RES), 23% to the construction of the new Ptolemaida V lignite power plant and 9% to investments regarding the conventional power plants' maintenance and environmental upgrade. By seeking to achieve its strategic priorities and implement the specific actions at an operational and regulatory level , PPC aims at having achieved profitability (EBITDA) of 1-1.1 billion by 2022.

Meanwhile, the decommissioning of lignite plants of 1,212 MW capacity by 2021 at the latest and the investigation of potential opportunities for the Non-Interconnected islands, regarding the conversion of the existing Thermal Power Plants into small-scale natural gas Units, are being scheduled, in accordance with the actions outlined in the Business and Strategic Plan, that was approved by the Company's BoD on July 2018. By the end of 2019, the Business plan will have been updated based on the market new situation , which is expected to accelerate the lignite Units' decommissioning and the development of new RES projects.

#### PPC Renewables

PPC Renewables S.A. plays an important role for the implementation of PPC's business plan for its transition to Renewable Energy Sources (RES). PPC Renewables holds 23 Wind Farms, 13 Small Hydroelectric Power Plants and 28 Photovoltaic Power Plants.

In 2018, the implementation of an investment plan for 18 RES projects (14 Wind Farms and 4 Small Hydroelectric Power Plants), of 87MW total capacity, was commenced. The plan is estimated at € 114 mil. and will be financed by the European Investment Bank and the National Bank of Greece. The investment plan focuses on the radical reconstruction of 12 power plants and the construction of 6 new ones. This plan is expected to be completed by the end of 2020, strengthening PPC's position in the entire RES market.

PPC Renewables holds a strong portfolio of future investments in Greece and at the same time examines the wider energy market of the Balkans and the Middle East. PPC's total existing investment plan foresees an increase in RES's share in PPC's energy mix

by 600 MW by the end of 2022, as well as in PPC's total capacity by 20%-25% by 2030-2035. The investment plan foresees the exploitation of geothermal fields, as well as the generation of electricity and thermal energy from a large biomass plant at Amyntaio in Florina.

In 2018, the Wind Farm of the Hybrid Project in Ikaria, "Naeras", of 6.85MW total capacity was commissioned. It is an innovative project that combines the utilisation of two forms of renewable energy sources, Wind and Hydroelectric. The automated operation of the Project is expected to be completed within the second half of 2019. In addition, a series of actions were launched, including:

- All old Wind farms were demolished in order to be reconstructed.
- The implementation of a contract for the study, supply, transportation, installation and operation of ten (10) Wind Farms in the Aegean Sea, with total capacity 19.80 MW and of total budget € 28.1 million, has begun.
- The tendering procedure was completed and the contracts for the Wind farm at Toplou Monastery in Crete, totalling 6MW capacity, were signed.
- The tendering procedure was completed and the contract for the study, supply, transportation, installation and operation of the Wind Farm in Karditsa and of the High Voltage Centre in the Municipality of Mouzaki of total capacity 27.6MW was signed.

#### 3.13 KEY FINANCIAL INFORMATION

#### MATERIAL TOPIC: COMPANY'S FINANCIAL POSITION / PERFORMANCE

PPC's financial performance was indicated as a material topic primarily by its Management, partners and suppliers, employees, competitors and by shareholders and investors. It is a key priority for the Management. The Company's financial data are available in the 2018 Annual Report. In addition to the value generated, it is also important to identify the value allocated to society and Stakeholders.

In 2018, the turnover amounted to € 4,593.5 million from € 4,847 million in 2017 reduced to € 253.5 million (representing a -5.2% drop). PPC's EBITDA amounted to € 68.8 million in 2018 compared to € 745.4 million in 2017 (representing a -109% drop).



The Company's net losses arose to € 874.7 million compared to € 215.9 in profits in 2017. The unamortized balance of subsidies on 31.12.2018 was € 168.8 million.

The total PPC investments stood at € 687.7 million and were allocated as follows: € 67.8 million to the Mines Business Unit, € 450.4 million to the Generation Business Unit, € 1.6 million to the Supply Business Unit, € 2 million to the Support Operations Division, € 443 thousand to Corporate Functions Divisions and € 165.4 million to the Distribution Network.

_	_		
FINANCIAL VALUE AND SOCIAL PRODUCT (in € '000)	2016¹	2017	2018 <sup>2</sup>
Turnover	5,063,942	4,847,036	4,593,522
Financial Income	215,055	110,223	111,478
Direct financial value generated	5,278,997	4,957,259	4,705,000
Salaries and employees' benefits including employer's social security contributions <sup>3</sup>	557,936	559,396	607,955
Financial expenses	220,704	200,450	183,539
Income tax, other taxes, duties and provision for surtaxes	42,970	52,924	38,350
Donations and sponsorship	853	1,446	1,822
Operating cost balance	4,352,267	4,132,866	4,674,844
Financial value allocated	5,174,730	4,947,082	5,506,510

Revised data reflecting adjustments made, as explained in note 36 of the Annual Financial Report (1st January 2017- 31st December 2017).

All PPC's published financial data are available in the 2018 Annual Report.

<sup>2.</sup> Parent company's financial results with discontinued operations.

<sup>3.</sup> Payroll incorporated in tangible assets are not included.



## SUSTAINABLE DEVELOPMENT

#### SUSTAINABILITY STRATEGY

PPC's approach on sustainable development is associated with the Company's operation, activities, financial performance, as well as its interaction with the environment and society. All sections of the Report cover the different aspects of sustainable development at PPC, and provide more information on each individual topic.

#### **GOAL ACHIEVEMENT 2018**



17 completed | 5 in progress | 2 not achieved

#### SUSTAINABILITY STRATEGY PILLARS



EMPLOYEES



MARKET AND CUSTOMERS



ENVIRONMENT



CONTRIBUTION TO SOCIETY

#### CONTRIBUTION TO THE UN SUSTAINABLE DEVELOPMENT GOALS







#### COMMITMENT

PPC's strategic goal is to assure its sustainable operation and development satisfying, at the same time, the requests of all interested parties by providing integrated, innovative, and high quality services and products to its customers, excellent work environment, mutual benefit relations, economic growth, environmental contribution and social prosperity. To achieve this strategic goal, PPC is committed to continuously improve its economic, environmental and social performance.













MINOR

MAJOR

New 660MW lignite-fired Unit **Ptolemaida V** within the next two years

#### 4.1 MANAGEMENT APPROACH

Although PPC no longer enjoys the monopoly it used to as the only fully vertically-integrated electricity generation company in Greece, it continues to monitor the needs of the entire country across the entire range of the economy to ensure the energy efficiency of the country.

PPC is the Supplier of Last Resort and the Universal Service Supplier, and for that reason is poised to deal with problems arising from System and Network operation as well as from the overall electricity market operation.

The Company ensures that:

- The Greek institutional framework is compliant with the targets that the European Union has set, in order to prepare the Greek Electricity market to operate under the regulations of the target model, thus covering the key objectives (reliability, security and economic operation of the market).
- It expands its activities abroad.
- It signs bilateral agreements, on a monthly and annual basis, with the most important power companies of Europe, for the import of electricity in Greece. The objective of the agreements is to ensure the reduction of the network's costs and at the same time contribute towards the country's energy balance.
- It continuously relates the availability of its Units' 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.
- It continuously monitors the water reservoirs' inflows that cover the network's energy needs in periods of peak load. Also, it safeguards the irrigation, water supply and ecological supply demand, and keeps the reservoirs within the required safety limits.
- It increases the installed capacity in the north and south system, by building new state-of-the art power generation Units (such as the natural gas-fired Unit in Megalopoli V, which has already been in operation, and the lignite-fired Unit in Ptolemaida V, which is under construction) to satisfy the network's current needs, due to the old Units' decommission. More specifically, PPC's new 660 MW lignite-fired Unit, Ptolemaida V, is expected to be integrated into the electricity generation network within the next two years.

- Its employees are regularly briefed and trained in how to use all technological equipment that will help them perform their tasks better; especially in topics regarding the operation of electricity market.
- It increases the percentage of RES in PPC's energy mix.

#### **Sustainable Development Policy**

PPC's Sustainable Development Policy is available to all stakeholders on the Company's webpage (www.dei.gr) and demonstrates the Management's main commitment towards sustainable development issues.

#### **Business Model**

PPC's business model aims to create value for its Stakeholders. PPC invests in its employees and infrastructure, as well as in developing new technologies and services. Stakeholder engagement using the means available to the Company at both national and local level enables PPC to understand the impact of its business activities and improve its performance by taking into account the opinion, concerns, needs and recommendations of all parties affected by and affecting PPC. PPC ensures that it offers suitable conditions within which its employees can grow, specialise, be healthy and safe; after all it is they who contribute to a growth in its operations. The Company supplies electricity nationwide, contributes to the growth of RES and to reaching national targets, and actively supports society.



#### **KEY RESOURCES**

#### FINANCIAL CAPITAL

Use of financial capital for investment in the Group's activities

#### **HUMAN CAPITAL**

Development of qualified personnel, for the efficient operation of companies

#### **MANUFACTURED**

Investment in new infrastructure and the upgrade of generation capacity

#### **NATURAL CAPITAL**

Use of natural resources, mainly lignite and renewable energy sources to generate electricity

#### INTELLECTUAL CAPITAL

Investment in the development of low carbon technology, innovative renewable technologies and new products/services

#### SOCIAL AND RELATIONSHIP CAPITAL

dialogue and cooperation with the stakeholders, in order to ensure the Group's efficient operation and society's support



#### FINANCIAL CAPITAL

Dividends paid, Taxes paid, revenues

#### **HUMAN CAPITAL**

Assuring health and safety conditions for highly skilled employees

#### MANUFACTURED CAPITAL

Modernized infrastructure for electricity supply

#### NATURAL CAPITAL SOCIAL AN

Development of RES, energy efficiency improvement, reduction of greenhouse gas emissions cus

#### INTELLECTUAL CAPITAL

Development of new technologies and services

#### SOCIAL AND RELATIONSHIP CAPITAL

Customer satisfaction, support vulnerable customers, local communities development and support programs

#### **VALUE CREATION**

#### **Challenges and strategic priorities**

In the last couple of years, due to regulatory as well as business reasons, PPC has been steadily transforming into a Group with an international presence, especially in the Balkans. The main objective is for PPC to become a major player and develop new products and services.

PPC' strategic guidelines, which are the basis of everything it does, can be summarized in the following 3 pillars:

- Flexibility Adaptability
- Expansion Diversification of activities
- Business partnership

PPC's objective is to be transformed into an efficient, competitive and intensely extrovert company. In 2018, PPC implemented a series of measures, with the most important ones being the following:

- Implementation of a new, fully digitalized employee evaluation system for the first time.
- Rewarding its highest performing employees in each Unit, by awarding them a substantial percentage of their subsequent promotion. The evaluation system and these incentives are of fundamental importance to the staffs' development, the Company's culture change and the upgrade of the Company's management framework.
- Signing of a three-year collective labour agreement with the Company's staff, which will include significant benefits, such as medical and hospital insurance for employees and their families.
- Acquisition of the power generation company EDS, which is based in the Republic of Northern Macedonia.
- Establishment of two subsidiaries for the divestment of the Meliti and Megalopoli lignite-fired units.

The Company's aim is to create the conditions for the strategic shift towards renewable energy sources, improve its sales mechanism by upgrading its customer service and enrich its sales portfolio with new products. PPC seeks to closely monitor and adapt to the market's and the regulatory framework's developments, as well as undertake new business initiatives, in order to enable its corporate transformation.



At the same time, PPC sets additional objectives for all of its activities, including:

- Optimising the management of generation on the non-interconnected islands, and studying the conditions for the installation of storage systems to increase the utilization rate of installed RES.
- Entering the Natural Gas market, aiming to hold a significant share of the market by 2020.
- Offering new energy services.
- Entering the evolving electromobility market. PPC signed a memorandum of agreement with the Polish company "Solaris Bus & Coach SA", with the aim of exploring the possibility of co-operating in the provision of integrated transport solutions in the field of electric transports in Greece and in other countries.

PPC formulates its strategy and proceeds to change, by adapting to the new trends. It aligns with European policies, searches and implements new business activity areas and improves its productivity.

More information on PPC's strategy and business plan is available in Section 3.12 of this Report as well as in the company's Annual Financial Report.

#### 4.2 GOVERNANCE FOR SUSTAINABLE DEVELOPMENT ISSUES

The PPC Board of Directors has appointed two (2) of its members to be in charge of managing sustainable development issues. In addition, it has set up the Corporate Social Responsibility Section which is part of the Corporate Affairs and Communications Department. Its mission is to establish, develop and implement a Corporate Social Responsibility strategy that aims at meeting the needs of Stakeholders in a balanced manner, while highlighting the actions and practices that showcase the Company's social profile.

The fact that BoD members have been assigned the task of supervising the Corporate Social Responsibility Section and submitting the annual Sustainability Report to the BoD, demonstrate that the Company takes CSR seriously.

#### 4.3 MATERIALITY ANALYSIS

PPC monitors international trends on how sustainable development is being managed and strives to improve its own performance, to ensure greater transparency in procedures and to ensure accountability. With that in mind, given that the heart of revisions to the GRI Guidelines is that each company must identify and evaluate its material topics, in December 2018 the Company's Divisions carried out a sustainability materiality analysis for the fourth time.

The objective of this exercise was to engage in real dialogue and identify the important issues that affect PPC and its Stakeholders and also to increase the degree of transparency and accountability by publishing the results of this process. More than 1,700 representatives of all Stakeholder Groups participated in the assessment.

#### Material topics identified by Management

PPC has developed a sustainability 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 sustainability risks / impacts. The topics set for evaluation were determined by analysing the results from previous years' assessments and taking into consideration the current Company practices and market conditions.

In 2018, the materiality analysis was carried out for the fourth time with the participation of all Chief Officers, as well as the heads of the independent Energy Management and Corporate Affairs and Communications Departments. The Compliance Director also participated in the process. All participants were asked to assess sustainable development topics arising from PPC operations, their impact and the likelihood of occurrence, taking into account existing practices (strategy, policies, procedures, measures and actions) to prevent, control and suppress them. The time period used for the purpose of identifying, quantifying and evaluating the sustainability risks / impacts was the next 18 to 24 month period.

These were then grouped together to allow them to be more effectively captured and managed. The grouped topics are presented in materiality heatmaps which show the estimated impacts/risks together with the likelihood of them occurring.

The heatmaps, the findings and conclusions as well as the dynamic tool used to formulate and process the results of this process were then evaluated by the Company's Management team to devise policies and take decisions.

#### **STAKEHOLDER GROUPS**

1.018

**CUSTOMERS** 

542

**EMPLOYEES** 

SHAREHOLDERS AND INVESTORS

20

NON-GOVERNMENTAL/NON-PROFIT **ORGANIZATIONS** 

15

**REGIONS. LOCAL AUTHORITIES** AND LOCAL COMMUNITIES

THE STATE, REGULATORY AUTHORITIES AND PUBLIC BODIES

14

COMPETITORS

PARTNERS AND SUPPLIERS

#### Material topics identified 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 when the guestionnaire was open, PPC had collected 1,706 responses from all stakeholder groups from all regions of Greece.

#### **Presentation of material topics**

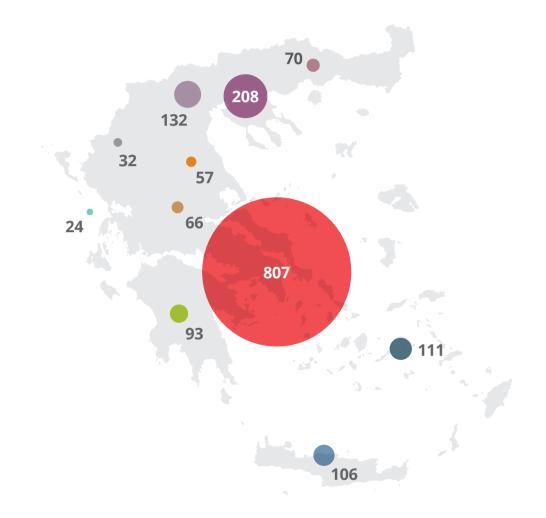
The results of the PPC in-house process and the results generated by processing Stakeholder questionnaires were then presented in a single material topics heatmap. In the following diagram, the horizontal axis depicts PPC Management's views (which is derived by multiplying the impact of each topic by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

The conclusions from PPC's materiality analysis are summarised below:

- PPC's financial position and performance is a common area of interest for both its Management and Stakeholders and is considered essential for the Company's financial and operational prosperity.
- Operational issues, such as the Company's staffing, risk/crisis management, new markets and investments, the regulatory issues and the new conditions of the energy market are considered particularly important for the Management, whilst PPC's Stakeholders recognise as highly important the environmental issues (raw materials/fuel/water, waste, ecosystems/biodiversity), employee and third party health and safety, as well as corporate governance, ethics and values among the ten (10) key material topics for PPC's sustainable development.
- Renewable Energy Sources, energy efficiency/promotion of new technologies and climate change are among the most material topics for PPC's Management and its Stakeholders and support the Management's decision to implement a business plan that will focus on changing PPC's energy generation mix by focusing on Renewable Energy Sources.

PPC is making concerted efforts to continuously improve how it organises and monitors sustainable development issues. The results of this materiality analysis are expected to be used to take important decisions about PPC's future and about the general outline of its Corporate Social Responsibility strategy.

#### **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

52

#### PPC SUSTAINABILITY MATERIAL TOPICS

#### **ECONOMY**

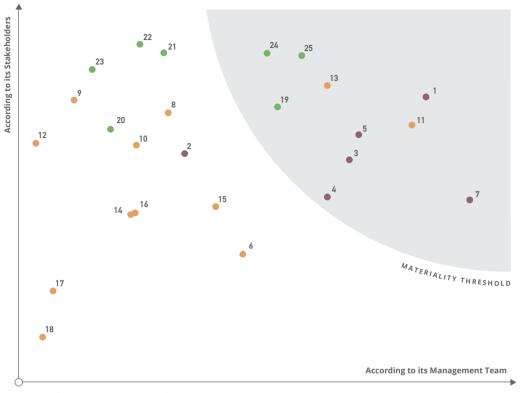
- 1 Financial position/performance
- 2 Procurement and logistics management
- 3 New markets and investments
- 4 Regulatory issues
- 5 Risk/crisis management
- **6** Supervising and managing relations with subsidiaries
- 7 New energy market conditions

#### SOCIETY

- 8 Corporate governance, ethics and values
- 9 Employee and third party health and safety
- 10 Staff training and development
- 11 Staffing the Company
- 12 Equal opportunities, labour and human rights
- 13 Customer service, information and satisfaction
- 14 Relationship / dialogue with local communities
- 15 Corporate communication and engagement in public policy in Greece on energy issues
- 16 Contractor/supplier management
- 17 Sponsorship
- 18 Volunteerism among PPC staff

#### **ENVIRONMENT**

- 19 Climate change and greenhouse gas/particle emissions
- 20 Dust, noise and visual/aesthetic nuisance
- 21 Waste
- 22 Raw materials/fuel/water
- 23 Ecosystems/biodiversity
- 24 Energy efficiency/new technologies
- 25 Promotion of renewable energy sources



PPC's significant economic, environmental and social impacts

KEY MATERIAL TOPICS (for Management and Stakeholders)	DEMARCATION (within/outside the Group)
1. Financial position/performance	This is primarily an internal issue impacting the Company's operations, but could also affect shareholders, employees, suppliers and customers.
3. New markets and investments	This is primarily an internal issue impacting the Company's operations, but could also affect shareholders and employees.
4. Regulatory issues	This is an internal issue, as it depends on how the Company manages regulatory issues, but is also directly affected by decisions of the State, the regulatory authorities and public agencies.
5. Risk/crisis management	This is primarily an internal issue impacting the Company's operations, but could also affect shareholders, employees, suppliers, customers and local communities.
7. New energy market conditions	This is primarily an internal issue impacting the Company's operations, but could also affect shareholders, employees and other Stakeholders.
11. Staffing the Company	This is primarily an internal issues impacting the Company's employees and consequently the Company's operation.
13. Customer service, information and satisfaction	This is primarily an external issue, impacting the Company's customers. However the issue can also be internal, because customer satisfaction can directly impact the Company's financial performance.
19. Climate change and greenhouse gas/particle emissions	This is an internal issue to the extent that major expenditure is required to meet the targets set for air pollution, to change the energy mix required, to generate electricity and to procure the necessary quantity of emission trading permits. However, it is also an external issue since the impacts of air pollution and climate change affect all the Company's Stakeholders.
24. Energy efficiency/new technologies	This is primarily an internal issue since it directly impacts the Company's financials (through the purchase of fuels, purchasing of emission trading permits, etc.), but is also external since improving energy efficiency helps reduce air pollution and curtail GHG emissions that lead to climate change.
25. Promotion of renewable energy sources	This is an internal issue since it affects the Company's operations, but is also an external issue since promoting RES helps combat climate change and could affect all the Company's Stakeholders.

## NABILITY REPORT 2018 SUSTAINABLE

4.4 STAKEHOLDERS

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 Stakeholder groups PPC recognises are its employees, its customers, the State, the Regulatory Authorities and Public Bodies, shareholders and investors, non-governmental/non-profit organisations, regions, local authorities, local communities, as well as its partners, suppliers and competitors.

Just as it does every year, the Company continued to communicate at both national and local level with all Stakeholders using means available to it. Stakeholder engagement is an integral part of PPC's daily work enabling it to understand the impact of our business activities and improve our performance by taking into account the advice, concerns, needs and recommendations of all parties affected by and affecting PPC. The fact that Stakeholders were involved in the Company's materiality analysis process demonstrates in practical terms PPC's commitment to real Stakeholder engagement. PPC recognises the major benefits for all sides that arise from the effective communication and cooperation with various Stakeholder groups.

PPC seeks to continuously enhance its communication approach in relation to its sustainability and climate change issues. In 2018, the Company completed a series of actions, aiming at showcasing PPC's practices as well as its performance on sustainability issues. Indicatively, PPC presented a snapshot of its sustainability performance at Thessaloniki International Fair via informative brochures and enhanced its Corporate Social Responsibility and Sustainability Report's content and layout.

#### **Employees**

#### **5 TOP MATERIAL TOPICS FOR EMPLOYEES**

- 1. Staff training and development
- 2. Financial position/performance
- 3. Staffing the Company
- 4. Employee and third party health and safety
- 5. Customer service, information and satisfaction

Source: PPC Materiality Analysis, 2018-2019.

PPC Management maintains direct contact with its employees. Employees are represented through their trade unions, through their representatives on the Board of Directors and at General Meetings of Shareholders, and they also participate first

and second instance boards and committees PPC has set up. Responding to the need for keeping employees properly briefed, Management is in direct contact with their trade unions to keeping them briefed about changes in PPC's structure. Just some of the issues Management addresses through a series of actions and procedures are labour, health and safety at work, training and benefits. More details are provided in section 5 of this Report.

#### Customers

#### **5 TOP MATERIAL TOPICS FOR CUSTOMERS**

- 1. Waste
- 2. Raw materials/fuel/water
- 3. Energy efficiency/new technologies
- 4. Promotion of renewable energy sources
- 5. Ecosystems/biodiversity

Source: PPC Materiality Analysis, 2018-2019.

The Supply Business Unit is in constant contact with our customers through our sales offices, telephone lines, our website, customer satisfaction surveys, information material, direct mailing campaigns involving selected customers, and the specialized mobile phone application (iPhone and Android) etc. More information can be found in section 7 of this Report.

The State, Regulatory Authorities and Public Bodies

#### 5 TOP MATERIAL TOPICS FOR THE STATE, REGULATORY AUTHORITIES AND PUBLIC BODIES

- 1. Climate change and greenhouse gas/particle emissions
- 2. Dust, noise and visual/aesthetic nuisance
- 3. Waste
- 4. Raw materials/fuel/water
- 5. Energy efficiency/new technologies

Source: PPC Materiality Analysis, 2018-2019.



**EMPLOYEES** 



CUSTOMERS



THE STATE, REGULATORY
AUTHORITIES AND PUBLIC BODIES



SHAREHOLDERS AND INVESTORS



NON-GOVERNMENTAL/ NON-PROFIT ORGANIZATIONS



REGIONS, LOCAL AUTHORITIES
AND LOCAL COMMUNITIES



PARTNERS AND SUPPLIERS



COMPETITORS



PPC is in contact with the State, Regulatory Authorities and Public Bodies on a number of energy-related issues. Regulatory Affairs Department, which is part of the Company's Strategy and Transformation Division, is the Department primarily responsible for preparing position papers and representing PPC on regulatory framework issues of concern to the Company. PPC participates in committees and engages in consultations at both national and European level on environmental and market deregulation and operation issues. The main PPC positions and activities on public policy issues are described in section 3.11 of this Report.

#### **Shareholders and Investors**

#### **5 TOP MATERIAL TOPICS FOR SHAREHOLDERS AND INVESTORS**

- 1. Raw materials/fuel/water
- 2. Ecosystems/biodiversity
- 3. Promotion of renewable energy sources
- 4. Energy efficiency/new technologies
- 5. Waste

#### Source: PPC Materiality Analysis, 2018-2019.

The PPC Investor Relations and Treasury Department coordinates communication with shareholders and investors. The official PPC website contains information about "Investor Relations" and all announcements and the information required by the applicable legislation, as well as information frequently requested by a particular group of Stakeholders. In addition, meetings are held with existing shareholders and potential investors to brief them about the change in the Company's financial results or simply present the results (6-month and annual financial results), conference calls are held with analysts, and there are also roadshows within Greece and abroad. Shareholder and investor interest is focused on PPC performance, which is presented in more detail in the 2018 Annual Report and in this Report, on the Company's prospects, on developments in the regulatory framework applicable to the electricity market, and on any issue which affects or could affect PPC's operations and financial results in the future.

#### Non-Governmental/Non-Profit Organizations

#### 5 TOP MATERIAL TOPICS FOR NON-GOVERNMENTAL/NON-PROFIT ORGANISATIONS

- 1. Ecosystems/biodiversity
- 2. Employee and third party health and safety
- 3. Waste
- 4. Raw materials/fuel/water
- 5. Energy efficiency/new technologies

#### Source: PPC Materiality Analysis, 2018-2019.

Non-governmental/non-profit organisations mainly make inquiries to the Company about our environmental performance and request support for their activities. The steps we take to manage our environmental footprint are discussed in Section 6 of this Report. Requests for sponsorship are evaluated and approved at the local or central level. Just some of the sponsorship PPC provided in 2018 is presented in section 8 of this Report.

#### **Regions, Local Authorities and Local Communities**

#### 5 TOP MATERIAL TOPICS FOR REGIONS, LOCAL AUTHORITIES AND LOCAL COMMUNITIES

- 1. Climate change and greenhouse gas/particle emissions
- 2. Dust, noise and visual/aesthetic nuisance
- 3. Energy efficiency/new technology
- 4. Waste
- 5. Raw materials/fuel/water

#### Source: PPC Materiality Analysis, 2018-2019.

PPC executives continuously communicate with the Regions, the local authorities and the local communities, either formally when specific requests are submitted or through consultations, or informally, via daily contact between our staff and representatives

of the local communities and authorities. Responding to the concerns of the local communities, wherever possible PPC selects employees and suppliers from the local communities we do business in, thereby bolstering the local economy. Section 8 of this Report presents countervailing projects resulting from the consultation procedure before the environmental terms and conditions for PPC projects are adopted, as well other actions to support local communities.

#### **Partners and Suppliers**

#### 5 TOP MATERIAL TOPICS FOR PARTNERS AND SUPPLIERS

- 1. Waste
- 2. Ecosystems/biodiversity
- 3. Raw materials/fuel/water
- 4. Financial position/performance
- 5. Energy efficiency/new technologies

Source: PPC Materiality Analysis, 2018-2019.

The Company collaborates with its suppliers and partners at local, national and international level to effectively carry out projects, promote "clean" energy and improve our products and services. Section 7.5 of this Report summarises our communication channels with our suppliers and our approach to transparent procurement procedures and contract awards.

#### Competitors

#### **5 TOP MATERIAL TOPICS FOR COMPETITORS**

- 1. Promotion of renewable energy sources
- 2. Financial position/performance
- 3. Procurement and logistics management
- 4. Raw materials/fuel/water
- 5. Energy efficiency/new technologies

Source: PPC Materiality Analysis, 2018-2019.

PPC strives to promote competition in the energy sector. Its participation in shaping public policy on this issue is proof of this. Attempting to promote sectoral issues and to strengthen cooperation on energy issues, PPC works with international power companies and participates in consultations with relevant bodies, as well as with industry organizations and associations, such as the Hellenic Electricity Association and EURELECTRIC.

#### 4.5 CONTRIBUTION TO THE UN SUSTAINABLE DEVELOPMENT GOALS

In 2015, the Members of the United Nations announced the 17 Sustainable Development Goals (SDGs). The aim is to achieve sustainable economic growth and prosperity for all, by alleviating every form of poverty, inequality and injustice and at the same time safeguard the conservation of the environment. PPC, as one the largest companies in Greece, directly contributes through its activities in the achievement of the SDGs.

PPC reviewed its value chain impacts on the 17 Sustainable Development Goals. Through its assessment: 6 Goals were identified as ones where PPC can significantly contribute towards their attainment, 3 Goals were identified as ones where the Company has a moderate contribution and 3 Goals where PPC has a minor contribution.

#### PPC'S CONTRIBUTION TO THE ACHIEVEMENT OF UN SUSTAINABLE DEVELOPMENT GOALS

MAJOR CONTRIBUTION TO 6 GOALS













MODERATE CONTRIBUTION





MINOR CONTRIBUTION

TO 3 GOALS



network are checked for potential presence

million tons of fly ash was used

reduction of PPC's Power Plants CO.

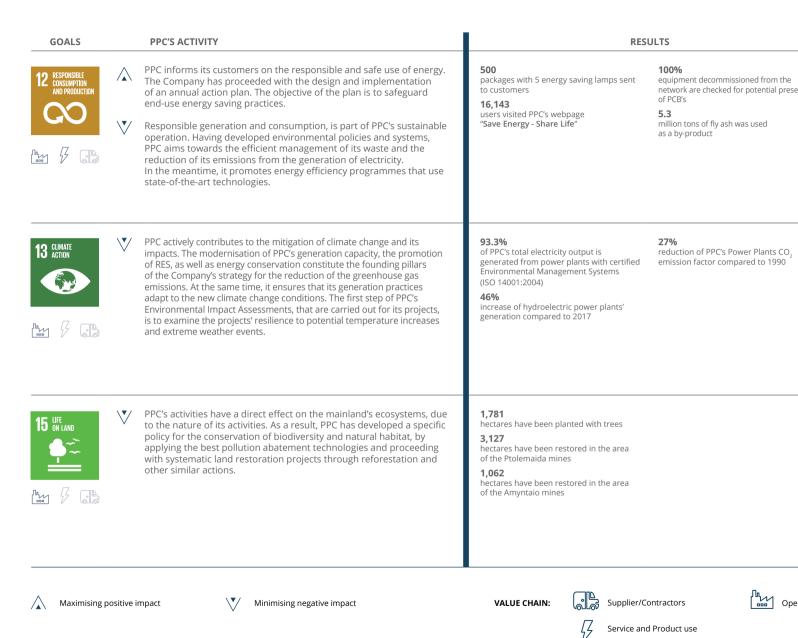
5.3

as a by-product

#### PPC'S MAJOR CONTRIBUTION TO 6 SUSTAINABLE DEVELOPMENT GOALS

GOALS	PPC'S ACTIVITY	RES	ULTS
6 CLEAN WATER AND SANITATION	Together with the use of Greece's water reserves for the generation of electricity, PPC handles large amounts of water resources, which are used for irrigation, water supply and/or cooling purposes. The Company significantly contributes in the sustainable management of its water resources, while at the same time proceeds with the recycling and reuse of significant amounts of water from its activities.	170 metereological stations 39 hydrometric stations 1,794 million. m³ for irrigation	
7 AFFORDABLE AND CLEAN ENERGY	As the largest electricity supplier in Greece, PPC strives to provide access to reliable and modern energy to all of its clients. The Company invests in the growth of Renewable Energy Sources, setting the stepping stone for a future that will rely on sustainable and environmental friendly energy sources. It invests in the R&D of technologies that will increase the efficiency of its generation.	3,171MW of Hydroelectric Power Plants' installed capacity 128MW of RES installed capacity (PPC Renewables) 5,051GWh were generated from Hydroelectric Power Plants 259GWh were generated from RES (PPC Renewables)	27% reduction of PPC's Units CO <sub>2</sub> emission factor compared to 1990 6,920,424 connections 1,500GWh were allocated to companies through guarantees of origin
8 DECENT WORK AND ECONOMIC GROWTH	Through its Sustainable Development Policy, PPC promotes continuous, sustainable and inclusive economic development. In addition, it promotes full, productive and respectful employment for all. PPC follows specific practices, that ensure its value chain adheres to fair working practices. In the meantime, it strives to improve the efficiency of natural resource consumption and promote economic growth with respect to the environment.  The Company is committed to ensure a safe working environment, both internally, through Health and Safety Management Systems, as well as externally, for the various contractors.	65% employees are women (excluding the technical and labour staff) 98% of employees are employed with openended employment contracts 100% employees who are employed with openended employment contracts are covered by the enterprise-specific collective labour agreement 8,189 participations in training courses	125,454 training hours 40,374 training hours on health and safety issues 0 fatal accidents 97% of suppliers are from Greece

Service and Product use



#### MEMBERSHIP IN ASSOCIATIONS AND ORGANISATIONS





Hellenic Network for Corporate Social Responsibility

Council for Sustainable Development at the Hellenic Federation of Industry (SEV)



The Hellenic Institute of Entrepreneurialism and Sustainable Development



Global Sustain



Hellenic Electricity

Institute of Energy

EURACOAL

European Coal

Association

Association (HELLAS) for South-East Europe



International Council





The Union of the Electricity Industry EURELECTRIC

European Federation of Energy Traders (EFET)

**EFET** 





Junior Achievement Education Association Greece (SEN/JA Greece)

#### 4.6 MEMBERSHIP IN ASSOCIATIONS AND ORGANIZATIONS

PPC actively participates in more than 38 national and international networks, associations, organisations and agencies to engage in constructive partnerships in the energy, industrial and business sectors and to promote corporate responsibility.

#### 4.7 AWARDS - DISTINCTIONS

For the 9th consecutive year, PPC was included in the Platts Top 250 Global Energy Company Rankings for 2018, in recognition of its economic and business performance in the energy sector.

PPC received the 3rd prize in the "Best public company for 2018" category at the "CHRIMA 2018 Business Awards". Winners were selected and awarded the prizes after assessing them against a series of criteria such as growth in financials, stability, increased market share, flexible response to changes in the external environment, stock market performance and relations with investors, level of customer service, etc.

PPC's Mines and Generation Business Units were awarded at the annual "Health & Safety Awards 2018" ceremony.

- The Mines Business Unit received the Highly Commended award in the category "Quarry and Mining".
- Ptolemaida Main Field Mine received two bronze awards. The first one was awarded for their preparedness in emergency situations and the incredibly successful full scale emergency drill "KERAS 2017", which was carried out with all lignite-miners present. The second award honoured the construction of PPC's model worksites for their healthy and safe working environment.
- The Generation Business Unit received the Highly Commended award for their risk management process at the Hydroelectric Power Plants and the bronze award for the Thermal Power Plants' preparedness in emergency situations.

#### 4.8 KEY CORPORATE RESPONSIBILITY PERFORMANCE DATA

PPC's key financial, environmental and social performance data for 2016-2018 are presented in the table below. More information can be found in the relevant sections of this Report.

ECONOMY	2016	2017	2018¹
Revenues (in € '000)	5,063,942 <sup>1</sup>	4,847,036	4,593,522
Total Liabilities and Equity (in € ′000)	15,392,554¹	14,740,889	13,482,403
Total liabilities (in € '000)	9,654,757¹	9,263,035	9,657,377
Total Equity (in € '000)	5,737,797 <sup>1</sup>	5,477,854	3,825,026
Domestic sales (GWh)	45,6131	43,821	40,921
Financial income (in € '000)	215,055	110,223	111,478
Salaries and employee benefits including employer social security contributions (in € '000) <sup>3</sup>	557,936	559,396	502,321
Provision for personnel's severance payment (in € '000)	0	0	105,634
Dividend payments (in € '000)	86	46	0
Earnings (losses) before tax (in € ′000)	98,962	223,423	(802,480)
Long-term borrowings (in € '000)	3,950,912	3,738,864	3,190,506
Short-term borrowings (in € '000)	661,102	530,378	744,767
EMPLOYEES	2016	2017	2018 <sup>2</sup>
Total No. of employees	10,6074	10,6724	9,0314
Female employees	21%	21%	23%
No. of employees with a collective labour agreement	10,589	10,651	9,010
Total No. of accidents	60	50	42
Total No. of fatal accidents	1	0	0

- 3. Payrolling costs incorporated in tangible assets are not included.
- 4. This includes PPC employees working at PPC Renewables S.A.



<sup>1.</sup> Parent company's financial results with discontinued operations (Lignitiki Melitis S.A. and Liginitiki Megalopolis S.A.).

<sup>2.</sup> The data do not include the companies Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A.

- Supply market share is defined as the percentage of the electricity supplied by PPC to end consumers over the total electricity supplied to end customers in Greece each year.
- 7. The figure for donations/sponsorship relates to amounts recorded in the accounts from 1 January to 31 December 2018.

Fatal accident frequency rate	0.81	0	0
Accident frequency rate	2.77	2.37	2.12
Total No. of days of absence due to accidents	7,576	1,819	1,355
Accident severity rate	0.35	0.09	0.07
Total No. of days of absence from work	64,692	54,231	23,603
Absence rate	2.47%	2.05%	1.05%
ENVIRONMENT	2016	2017	2018 <sup>2</sup>
Number of Power Plants (lignite centres, thermal power plants, hydroelectric power plants, etc.) with certified Environmental Management Systems	20	20	18
CO <sub>2</sub> emissions from electricity generation (in thousands of tons)	28,468	31,794	23,828
Greenhouse gas (CO₂) trading rights (€ '000)	178,172	181,215	279,531
Surface area of PPC's facilities (hydroelectric facilities) in protected areas <sup>5</sup> (Km²)	77.54	77.54	77.54
MARKET AND CUSTOMERS	2016	2017	2018 <sup>2</sup>
Installed capacity (MW)	11,976	11,968	11,142
Net energy output (in GWh)	29,982	32,326	27,110
No. of connections (low and medium voltage)	7,326,984	7,176,082	6,920,329
Supply market share (average annual) <sup>6</sup>	91.8%	86.7%	81.9%
SOCIETY	2016	2017	2018 <sup>2</sup>
Social contribution (donations and sponsorships <sup>7</sup> , support of local communities and institutions/ organizations etc.) (€ '000)	853	1,446	1,822
Total amount of lignite levy payable to local communities (in € '000)	25,776	24,235	22,164

#### 4.9 COMMITMENTS - GOALS

The following tables show the goals set for 2018 and the degree to which they were accomplished, as well as our goals for 2019. The tables follow the structure of the Report.

#### SUSTAINABLE DEVELOPMENT

#### **2018 GOALS**

- Analysis of material issues from PPC's Management and Stakeholders.
- Enhance the communication of PPC's approach on sustainability issues.

#### IMPLEMENTATION

Completed (see section 4.3)



Completed (see section 4.4)



#### **2019 GOALS**

• Enhance the communication of PPC's approach on sustainability issues.



TPP Agios Dimitrios, Kozani

#### **EMPLOYEES**

#### **2018 GOALS**

- Digitalise personnel's folders.
- Utilise newly-hired higher education personnel through structured interviews.
- Connect the new evaluation system with other human resources management systems.
- Start the "Business English" classes-training programme for almost 100 PPC executives.
- · Certify the Occupational Health and Safety Department's Quality Management System, in accordance with the Hellenic Organization for Standardization new EN ISO 9001:2015 standard.
- Update PPC's occupational health and safety policy.
- Prepare and complete at least 10 Written Occupational Risk Assessments (WORA).
- Issue a statistical report for accidents and comment on the features of accidents affecting staff at the Mines and Generation Business Units in 2017.
- Perform at least 8 Social Workers' visits to the provinces.

#### **2019 GOALS**

- Determine typical qualifications per job position taking into account staff categories-skills.
- Digitalise personnel's remaining folders.
- Conduct-finalise at least 10 Occupational Risk Assessments Studies.
- Issue a statistical report for accidents and comment on the features of accidents affecting staff at the Mines and Generation Business Units in 2018.
- Perform at least 10 Social Workers' visits to the provinces.
- Carry out the Social Workers' briefing-training on the issues of "Motivational Interviewing" and "Management of people with suicidal tendencies".

#### IMPLEMENTATION

In progress (see section 5.1)



Completed (see section 5.2)

Completed (see section 5.3)

Completed (see section 5.2)

Completed

(see section 5.5) Completed (see section 5.5)



Completed (see section 5.5)



Completed (see section 5.5)

(see section 5.5)



#### **2018 GOALS**

**ENVIRONMENT** 

#### • Transition to the requirements of the new version of the ISO 14001:2015 standard and adjust the Environmental Management Systems at Power Plants which already have certification.

- Continue and complete the Environmental Management System's development and implementation process according to the ISO 14001:2015 standard at the Lesbos, Chios, Limnos, Samos, Milos, Santorini and Karpathos Autonomous Power Plants, the Symi and Megisti Local Power Plants and the N. Plastiras Hydroelectric Power Plant.
- Certification of Hilarion HPP, located in the Aliakmonas Complex, according to the ISO 14001:2015 standard.
- Run training seminars for new recruits at the Power Plants covering core environmental requirements and the key principles of the ISO 14001 standard.

#### IMPLEMENTATION

Completed (see section 6.1)



In progress (see section 6.1)



Completed (see section 6.1)



(see section 6.1)



#### **2019 GOALS**

- Re-assess/monitor the Power Plants' Environmental Management Systems, according to ISO 14001:2015 requirements, and ensure their certification is maintained.
- Continue and complete the Environmental Management System's development and implementation process according to the ISO 14001:2015 standard at the Samos, Limnos, Chios, Karpathos and Kos Autonomous Power Plants.
- Commence and prepare the development and implementation process according to the ISO 14001:2015 standard at the N. Plastiras Hydroelectric Power Plant and New South Rhodes Thermal Power Plant.
- Integrate the "Energy Audit" procedure into the existing Environmental Management System procedures at Lavrio TPP.
- Achieve certification of the West Macedonia Lignite Centre according to the ISO 50001 Energy Management standard.
- Plant 125,000 plants at the West Macedonia Lignite Centre and take fire-protection measures for the planted areas.
- Conduct a study in 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)"

# MARKET AND CUSTOMERS

### **2018 GOALS**

- Reduce overdue debts by 10% and thus improve the Company's liquidity.
- Further develop PPC's electronic customer service, enabling customers to sign their contracts electronically.
- Extend the digitalization pilot scheme of all new documents and contracts that are managed within all customer service points, aiming at developing an electronic database that will include all customers' files.
- Update PPC's customer archive, following the General Data Protection Regulation (GDPR) legislative layout.
- Design and implement end-use energy saving actions/measures, that will lead to the cumulative energy saving of 40 Ktoe (470 GWh) for the 2018-2020 period.

# **2019 GOALS**

- Standardise and harmonise procedures and functions, through the development of ISO management systems at certain sales offices for 2019.
- Further develop the electronic customer service platform, through the provision of electronic contracts and repayment plans.
- Digitalise the customer archive and provide the option to customers to sign electronically.
- · Carry out a personnel training plan, in accordance with the Supply Business Unit's needs, aiming to improve customer service.

# IMPLEMENTATION

Not achieved (see section 7.1)



In progress (see section 7.1)

Completed (see section 7.1)

Completed (see section 7.1)

(see section 7.3)

# CONTRIBUTION TO SOCIETY

# **2018 GOALS**

- Implement at least 3 social solidarity actions.
- Continue programmes designed to develop and strengthen local communities.
- Start the courses in the PPC Private Vocational Training Energy Institute in Kozani.
- Provide career guidance to at least 150 high school students in the Municipalities of Kozani, Eordea and Megalopoli.

# **2019 GOALS**

- Implement at least 3 social solidarity actions.
- Initiate 2 new courses at the PPC Private Vocational Energy Institute in Kozani.
- Continue programmes designed to develop and strengthen local communities.
- Provide career guidance to at least 150 high school students in the Municipalities of Kozani, Eordea and Megalopoli.

### IMPLEMENTATION

Completed (see section 8.4)



Completed (see section 8.1 and 8.2)



Completed (see section 8.5)



Not achieved







# EMPLOYEES

PPC is constantly striving to develop an equal opportunities workplace where employees respect each other and where there is no discrimination.

# **EMPLOYEES**

**9,031** Employees

**43%** in West Macedonia

**74%** Technical and Labor staff

**66%** Women (excluding technical and labor staff)

**100%** are employed full-time

**99.8%** Open-ended employment contracts are covered by the enterprise-specific collective labour agreement

# TRAINING AND DEVELOPMENT



**56,820** Training hours

**5,417** Participations in training courses

# **HEALTH AND SAFETY**



**45,624** Training hours on health and safety issues

**100%** of TPPs have in place certified occupational health and safety management systems, in accordance with the OHSAS 1800:2007 standard



# 5.1 HUMAN RESOURCES DATA

# MATERIAL TOPIC: STAFFING THE COMPANY

Staffing the Company was indicated as a material aspect primarily by Management, employees, the state, regulatory authorities and public bodies, as well as non-governmental organizations. An ageing staff coupled with restrictions on new recruitments due to legal provisions applicable to companies in the Greek public sector, are aspects of this topic which directly impact the Company's operations.

At the end of 2018 (31.12.2018) PPC had 9,031 full-time employees. Only 28% of the PPC employees work in the Attica region, given that the vast majority of them work in other Greek regions, mainly in the mining and generation sectors (in mines and power plants). Special rules apply to PPC about recruiting local staff. During the short-listing process the permanent residents of local municipalities and communities where the Company has power plants and mines receive preference. These 'locality' rules do not apply to company executives.

35 PPC employees have been seconded to posts outside the Company. In compliance with applicable legislation and with well-established PPC practice, the Company has seconded employees to the political offices of members of the government, members of the parliament, political parties, ministries, and so on. Out of the 35 employees who have been seconded, 32 are still being paid by PPC and remain on its full-time staff, while 3 are being paid by the bodies.

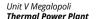
# Geographical allocation of employees by gender

REGION	NO. OF EMPLOYEES	NO. OF EMPLOYEES	NO. OF EMPLOYEES (31.12.2018)			
	(31.12.2016)	(31.12.2017)	MEN	WOMEN	TOTAL	
Eastern Macedonia and Thrace	161	156	114	44	158	
Attica	2,518	2,528	1,325	1,202	2,527	
Northern Aegean	170	182	163	17	180	
West Macedonia	4,507	4,454	3,536	386	3,922	
Epirus	153	151	112	30	142	
Thessaly	123	115	80	34	114	
Ionian Islands	19	5	5	0	5	
Central Macedonia	216	212	140	72	212	
Crete	488	534	439	93	532	
Southern Aegean	454	534	497	44	541	
Peloponnese	1,403	1,412	205	118	323	
Mainland Greece (Sterea Ellada) and Evia	395	389	294	81	375	
Total	10,607	10,672	6,910	2,121	9,031	

The human resources of the company include employees working for PPC Renewables S.A., but not the employees who have been seconded to posts in insurance bodies (223 individuals in 2018). The large personnel reduction from 10,672 in 2017 to 9,031 in 2018 is mainly attributed to the spin-off and transferring of 1,319 employees to the Megalopoli and Meliti Lignite plants.

It is noted, that the Company has proceeded with the digitalization of its employees' records, to ensure that their records shall be effectively handled. In 2018, records of the employees who work at the Megalopoli and Meliti Lignite plants were digitalized, while this process will apply for the records of all Company employees.







# RESPONSIBILITY AND SUSTAINABILITY REPORT 2

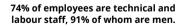
# Allocation of employees by Employee Category, Gender and Age

	N. 05				No. OF E	MPLOYEES	31.12.2018		
EMPLOYEE CATEGORY	No. OF EMPLOYEES	No. OF EMPLOYEES	MEN			WOMEN			
	(31.12.2016)	(31.12.2017)	< 30 Y. OLD	31 - 50 Y. OLD	> 50 Y. OLD	< 30 Y. OLD	31 - 50 Y. OLD	> 50 Y. OLD	TOTAL
Executives	137	128	0	2	94	0	2	22	120
Admin./Financial employees	2,169	2,164	4	210	446	6	704	702	2.72
Technical-Technological employees	1,432	1,418	4	422	619	1	123	86	1,255
Technical support employees	6,139	6,262	92	2,144	2,492	8	150	67	4,953
Workers	581	545	2	88	246	0	80	57	473
Expert staff	142	149	0	10	29	2	66	45	152
Consultants	7	6	0	2	4	0	0	0	6
Total	10,607	10,672	102	2,878	3,930	17	1,125	979	9,031

Allocation of employees by employee category with a pension entitlement over the next five years

Men comprise nearly 77% of the Company's workforce. The large male presence in the company workforce is attributed to the nature of the Company's works.







From the total of all other employee categories, women comprise 66% of the Company's workforce.



EMPLOYEE CATEGORY	ESTIMATED NUMBER OF EMPLOYEES WITH PENSION ENTITLEMENT OVER THE NEXT 5 YEARS	ESTIMATED % OF EMPLOYEES WITH PENSION ENTITLEMENT OVER THE NEXT 5 YEARS
Executives	38	32%
Admin./Financial employees	252	12%
Technical-Technological employees	318	25%
Technical support employees	2,360	48%
Workers	124	26%
Expert staff	9	6%
Consultants		-
Total	3,101	34%

The majority of employees (54%) are over 50 years old. It is estimated that 34% of them could become entitled to a pension over the next 5 years. Any forecast for the next 10

years would be very risky because of the general fluidity and uncertainty about the Company's future ownership regime and structure.

In 2018, PPC's BoD approved the implementation of an exit scheme programme for employees who become eligible for their main pension and reach a specific age by the 31st of December. 184 employees invoked the voluntary exit programme and will leave the Company on 31.01.2019. This practice will continue to apply in the years to come, unless any modification thereof takes place.

PPC is subject to rules and provisions applicable to Companies in the Greek public sector which affect specific procedures like recruiting new staff. Management is aware that the high average age of staff and the limitations on recruitments are factors that could have a negative impact on the Company's ability to carry on its business activities.

In 2018, PPC recruited 52 new employees. In order to meet operational needs, it also recruited 1,213 full-time seasonal staff (1,124 of whom were on 8-month contracts, 68 on 2-month contracts and 21 on project contracts).

# **Recruitments 2018**

REGION	No. OF RECRUITMENTS IN 2016	No. OF RECRUITMENTS IN 2017	No. OF RECRUITMENTS IN 2018
Eastern Macedonia and Thrace	-	-	2
Attica	57	68	19
Northern Aegean	11	17	-
West Macedonia	33	138	3
Ionian Islands	1	1	-
Central Macedonia	6	3	3
Crete	52	38	-
Southern Aegean	33	80	23
Peloponnese	8	27	2
Mainland Greece (Sterea Ellada) and Evia	-	1	-
Total	201	373	52

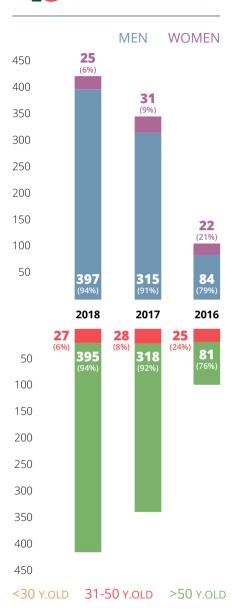
PPC's staff is occupied full-time. Of a total of 9,031 employees, 9,010 are employed on the basis of open-ended employment contracts and are covered by the Enterprise

# RECRUITMENTS \*\*\*

MEN	WON	IEN	
			400
	<b>47</b> (13%)		350
			300
		33	250
		(16%)	200
			150
11			100
(21%) <b>41</b> (79%)	<b>326</b> (87%)	<b>168</b> (84%)	50
2018	2017	2016	
2018			
47	(23%)	(27%)	50
17 (33%) 30	273	(68%)	100
(58%) <b>5</b> (10%)	(73%)		150
(10%)		11	200
		(5%)	250
			300
			350
	<b>14</b> (4%)		400
<20 V 0	ID 21 E	) V OLD >E	0 4 01 0

<30 Y. OLD 31-50 Y. OLD >50 Y.OLD

# **ATTRITIONS**



Specific Collective Labour Agreement signed on February 2015, with a 3-year duration, while 19 employees have fixed-term employment contracts.

In 2018, 422 employees left service. The attrition rate, as a percentage of all full-time employees, is calculated at 5%.

NO OF EMPLOYEES NO OF EMPLOYEES NO OF EMPLOYEES

# **Attritions 2018**

REGION	NO. OF EMPLOYEES WHO LEFT IN 2016	NO. OF EMPLOYEES WHO LEFT IN 2017	NO. OF EMPLOYEES WHO LEFT IN 2018
Eastern Macedonia & Thrace	2	1	2
Attica	34	89	56
Northern Aegean	2	3	5
West Macedonia	32	187	294
Epirus	3	4	7
Thessaly	2	4	4
Ionian Islands	-	-	-
Central Macedonia	2	6	13
Crete	4	5	6
Southern Aegean	7	8	8
Peloponnese	16	27	12
Mainland Greece (Sterea Ellada) and Evia	2	12	15
Total	106	346	422

# Average length of service of employees who left in 2018



# 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 take it either all at once or in portions. The paid leave is granted taking into account the Company's work needs. In any case, the entitled annual paid leave of the previous working calendar 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 2018, 241 men and 84 women applied for and were granted parental leave. During the year, 96 men and 31 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 2018, no employee left service within 12 months of returning from parental leave.

# **Trade Unions**

PPC supports freedom of association for its employees and gives trade union representatives time to perform their trade union duties. The PPC trade unions represent employees from different areas of specialisation and regions. The General Federation of PPC Electricity Sector Personnel (GENOP/PPC-CCDs), which includes 22



**AVERAGE TRAINING HOURS /** PARTICIPANT 10

> TRAINING PARTICIPANTS 5,417

> MEN 4,503

**AVERAGE TRAINING HOURS /** PARTICIPANT 10.03

> WOMEN 914

**AVERAGE TRAINING HOURS /** PARTICIPANT 12.77

unions with 7,461 registered PPC employees in 2018, the Electricity Industry Workers' Federation that consists of 4 unions and has 257 registered employees and 4 more independent unions with which 254 employees are registered, all operate within the Company.

The fact that there is an Employment Trade Union Relations Sector within the Human Resources and Organization Department, responsible for handling trade union-related issues, demonstrates 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 relevant HR Unit.

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

# 5.2 TRAINING AND DEVELOPMENT

The PPC Training Department monitors, manages and evaluates the training needs of PPC employees, to develop the Company's human capital and to achieve its strategic objectives. The systems used in the training field include analysing and identifying training needs, designing training courses, selecting trainees and instructors, running training courses and evaluating training activities (the training cycle).

PPC has training facilities which are fully equipped and accessible to all employees or visitors. They are also disabled-friendly. These include the Athens Intensive Training School and classrooms at head offices in the Attica region and in Macedonia region (the Kardia Intensive Training School and the Intensive Training School for Mines personnel).

PPC employees attend training courses on diverse matters: technical and of general interest issues, post graduate courses, foreign language courses, lectures, conferences and seminars.

In 2018, a total of 56,820 man-hours of training were recorded, and the average training hours per participant was 10 hours. Of 5,417 participants, 4,503 were men and 914

women and the average training hours per participant were 10.03 hours and 12.77 hours respectively. Of all employees, the average length of training per employee was 6 hours, 7 hours for men and 6 hours for women.

Towards reinforcing efficiency and developing a more professional approach, PPC, in 2018:

- · Launched new Business English classes (of 100 educational hours) for 100 PPC executives.
- · Designed and implemented a process to optimally utilise the newly-hired higher education personnel (225 persons), in collaboration with the Human Resources and Organization Department and Company executives.
- · Designed and implemented the educational program entitled "Employee training in Management and Organization Practices", of 210 educational hour-duration, in collaboration with the University of West Attica, which was successfully attended by 10 employees of the Company.

<b>DEVELOPING</b>	
A PROFESSIONAL	
APPROACH	



"BUSINESS ENGLISH"

**100** HOURS

100 EXECUTIVES



PROCESS TO OPTIMALLY UTILISE THE NEWLY-HIRED HIGHER **EDUCATION PERSONNEL** 

225 PERSONS

**«EMPLOYEE TRAINING** IN MANAGEMENT AND **ORGANIZATION PRACTICES»** 

**210** HOURS

10 EMPLOYEES

		2016			2017			2018	
EMPLOYEE CATEGORY	NUMBER OF PARTICIPANTS IN TRAINING PROGRAMMES	TOTAL TRAINING MAN-HOURS	AVERAGE TRAINING MAN-HOURS PER PARTICIPANT	PARTICIPANTS IN TRAINING PROGRAMMES	TOTAL TRAINING MAN-HOURS	AVERAGE TRAINING MAN-HOURS PER PARTICIPANT	PARTICIPANTS IN TRAINING PROGRAMMES	TOTAL TRAINING MAN-HOURS	AVERAGE TRAINING MAN-HOURS PER PARTICIPANT
Executives	29	316	10.90	113	922	8.16	36	283	7.86
Admin./Finance employees	830	13,027	15.70	1,256	10,904	8.68	572	5,696	9.96
Technical – Technological employees	894	14,351	16.05	1,299	13,387	10.31	753	8,465	11.24
Technical support employees	4,175	39,929	9.56	4,690	91,087	19.42	3,413	33,441	9.80
Workers	280	3,464	12.37	278	2,498	8.99	182	3,356	18.44
Expert staff	18	140	7.78	18	138	7.67	53	334	6.30
Consultants	-	-	-	-	-	-	-	-	-
Unspecified category*	582	7,826	13.45	535	6,518	12.18	408	5,245	12.86
Total	6,808	79,053	11.61	8,189	125,454	15.32	5,417	56,820	10.49

<sup>\*</sup> The category the participant belongs to is unrecorded.



# 5.3 EMPLOYEES' EVALUATION AND BENEFITS

Employee evaluation programmes tend to have a positive impact on the operation of a company, as employee good performance is rewarded and it encourages efforts to further improve performance. Right from the outset, PPC has had an employee evaluation system in place.

In 2018, for the first time, the annual evaluation for 2017 was carried out, based on the new Evaluation System, which aims at developing personnel and improving the Company's working environment. 8,977 employees whose contracts are governed by PPC's Staff Regulations, were evaluated.

Moreover, in 2018, the new Evaluation System was integrated into the Company's existing human resources management systems (e.g. salary increases). On the basis of this evaluation, it was decided to reward the employees of the company who excelled with their performance in 2017, according to the new evaluation system. The reward corresponds to 30% of the difference between employees' current wage scale and the next wage scale and is attributed monthly to the beneficiaries, starting as of 31st January 2019. The rewarding amount was administered to 20% of each Unit's staff, who received the highest grade among the Unit's employees, irrespective of their evaluation category.

PPC recognises its employees as the most valuable asset and strives in ensuring their maximum satisfaction and commitment to the Company and its goals; therefore besides offering a basic salary to its employees, it has established a range of additional benefits. Just some of these benefits are:

- 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 normal 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 sale offices run by the Supply Business Unit).
- Training (seminars, foreign language courses, post-high school training, postgraduate courses, etc.).
- Free private crèches for children of employees, or coverage of part of the cost of private crèches or coverage of the cost of private campsites, up to the amount set by the competent Ministry.

- •Mobile phones for staff, with free calls to other company staff members.
- 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 € 6 for each day worked.
- Award of commendations to children of employees and retirees of the company who excelled in secondary and higher education. In 2018 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 2017-2018. 432 commendations in total were awarded.
- Career guidance services are offered to the children of the company's employees and retirees. In 2018, the Training Department provided free advice to 221 children of PPC employees and retirees. The sort of advice offered by the Department has been welcome all over the country by both parents and children.
- The company offers an additional group health and life insurance program for its employees, in collaboration with the European Reliance General Insurance Co. S.A.

# 5.4 EQUAL OPPORTUNITIES AND RESPECT FOR HUMAN RIGHTS

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 2018. 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 other issue based on gender, age, race, colour, heritage, national or ethnic background of its employees.







# 5.5 HEALTH AND SAFETY

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 new updated version, specific reference is made to measures for preventing large-scale industrial accidents, in cooperation with the competent bodies and the neighbouring industries.

Since March 2012 the Occupational Health and Safety Department, which is responsible for managing these issues in PPC and is the In-House Protection and Prevention Service, has been awarded the ELOT EN ISO 9001 certification for its Quality Management System. The System was re-certified during the year according to the revised ISO 9001:2005 standard. Moreover, since 2012 the Occupational Health and Safety Department has held a licence as an External Protection and Prevention Service Provider with the ability to provide protection and prevention services to customers inside and outside the PPC Group.

PPC is committed to implementing the relevant provisions of the Greek law on occupational health and safety, and to bringing its practices in line with all new European directives in this field. Thus, the Occupational Health and Safety Department uses the Business Cooperation Portal, to inform the Units on relevant regulations and assess their compliance.

To curb the risk of accidents occurring, the Occupational Health and Safety Department's priority is to cultivate a culture of occupational safety at all levels within the company. The Department's goal is to have all employees at all levels and anyone who has a working relationship with the Company committed to the general accident prevention objectives.

The PPC Group's health and safety policy clearly refers to ongoing consultation with trade unions and employees' representatives concerning occupational health and safety issues.

# Inspections, emergency drills and management systems

In 2018, 11 Written Occupational Risk Assessment (WORA) studies were elaborated in PPC Group's facilities: 1 at HEDNO (Volos) and 10 at PPC (West Macedonia Lignite Center Exploitation Department: Main Field Mine Unit, Kardia Field Mine Unit, Human Resources Unit, Financial Support Unit, Central Maintenance Unit, Thermal Power Plants Operation Department: Aliveri Thermal Power Plant, West Macedonia Lignite Center Operational Support Department, Kallithea Sales Office, Tripoli Sales Office, Tinos Sales District, Koropi Sales District.

According to PPC's regulation which foresees emergency protocols, the Occupational Health and Safety Department runs training courses in risk/disaster management and carries out emergency drills (Emergency Situation Plans - ESP), in order to ensure that Company's employees shall be able to tackle any emergencies/incidents. In 2018, 11 ESPs were carried out. Notable mentions are the emergency drills "Gordios Desmos" at Kardia Thermal Power Plant and "Parion Velos" at Aliveri Thermal Power Plant. Moreover, the first full scale emergency drill "Pandora 2018" was carried out at the Kardia Field Mine, with the presence of executive bodies, as part of the Kardia Field Mine's emergency management plan.

In addition, the independent bodies successfully completed the annual review of the Occupational Health and Safety Management Systems according to OHSAS 18001:2007 (ELOT 1801) at all Thermal Power Plants of the Company, as well as at the Main Field and Kardia Mines of West Macedonia Lignite Centre.

Within the year, inspectors from the Occupational Health and Safety Department took part in 21 inspections in relation to health and safety issues in the workplace (12 of which were carried out at HEDNO, 7 at PPC power plants and 2 at PPC Renewables S.A.). The heads of the Departments were notified about the inspections' results.

# **Health and Safety training**

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 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 include the following subjects: health, medicine, occupational safety, first aid, and 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 organisations, agencies of the General Secretariat for Civil Protection and in some cases the Armed Forces. In 2018, 3 Independent Emergency Design Policy (IEDP) training cycles for authorized personnel of HEDNO were carried out. In addition, 16 training cycles for 922 employees (5,983 hours) on ESP were carried out.

As part of the partnership with the Fire-brigade, that was initiated in 2016, 4 seminars were carried out within 2018 by lecturers of the Fire-brigade Academy on the topic "Fire safety according to Fire Brigade Regulation 14/2014", in which 73 people were trained (1,314 hours).





Training cycles of Independent Emergency Design Policy (IEDP), for authorized personnel of HEDNO, in 2018



Training cycles for the ESP for 922 employees (5,983 hours).



Lectures of the Fire-brigade Academy on the topic «Fire safety according to Fire Brigade Regulation 14/2014». 73 people were trained (1,314 hours).



Training cycle for Safety Technicians in Athens (1st and 2nd phase). Also, a training cycle for the Safety Technicians of the Mines working in Kozani.





The 31 Occupational Physicians, in the context of training and briefing on health, medical and occupational safety issues, provide information to staff on diseases, first aid practices, 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 2018, 1 training cycle for Safety Technicians in Athens (1st and 2nd phase) was carried out. Also, a training cycle for the Safety Technicians of the Mines working in Kozani, was completed.

Specific occupational health and safety topics and relevant subjects are included in the materials for other seminars run by the Training Department, such as the orientation training which new recruits receive.

A quarterly manual entitled "Foreman and accident prevention" is published by the Mines Business Unit to brief foremen about those occupational health and safety issues which are a constant concern for PPC.

In 2018, the Mines Business Unit launched a series of actions for the promotion of Health and Safety to its employees, in collaboration with the Mines Central Support Department. More specifically:

- Training on fire safety issues was carried out to the personnel of the Mines Business Unit and the Mines Central Support Department, by the Fire Brigade.
- Training on the provision of first aid and the use of an automatic external defibrillator was carried out to the ESP's First Aid team, as well as to the personnel of the Mines Central Support Department by the Occupational Physician.
- Training to the staff of the Mines Central Support Department was carried out in cooperation with the PPC Training Department and the Occupational Health and Safety Department as part of the ESP, as well as real time fire-fighting training.

		2016		2017 2018					
PPC UNITS	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
Mines Business Unit	2,709	28,703	10.60	2,524	24,295	9.63	2,771	30,788	11.11
Generation Business Unit	2,767	24,670	8.92	1,431	13,217	9.24	1,485	12,998	8.75
Supply Business Unit	198	510	2.58	128	316	2.47	6	24	4.00
Finance Division	85	216	2.54	-	-	-	4	28	7.00
HR Division	91	656	7.21	46	148	3.22	69	423	6.13
Support Operations Division	39	306	7.85	453	2,368	5.23	34	284	8.35
Other units	61	308	5.05	3	30	10.00	109	1,079	9.90
Total	5,950	55,369	9.31	4,585	40,374	8.81	4,478	45,624	10.19

Note: The data in the table above relate to training programmes handled and organised by the Training Department ("locally" implemented training conducted by the Departments in PPC Units



TPPS HAVE IN PLACE CERTIFIED OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEMS. IN ACCORDANCE WITH THE **OHSAS 1800:2007 STANDARD** 



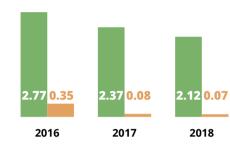


# **Health and Safety for contractors and subcontractors**

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 practices for persons employed on project construction and for third parties as well.

Contractors/subcontractors are obliged to provide staff with suitable personal protective equipment (PPE) depending on the work being carried out, to take all health and safety at work measures required 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 and to keep employees informed about these issues.

Upon entering the worksite, contractors are obliged to provide the Company with a list of staff to be employed (number, area of specialisation), 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 specialised technical work tasks which are to be undertaken. That training is provided at the PPC Vocational Training Centre.



# ACCIDENT FREQUENCY RATE FATAL ACCIDENT FREQUENCY RATE

- 1a. 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 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.
- 1β. Total No. of fatal accidents among employees based on the European statistics on accidents at work (ESAW) Methodology - 2001 edition.
- 2. Calculation Method: No. of fatal accidents per 10,000 employees in line with ESAW.
- 3. 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: Number of accidents per 106 hours of exposure to risk.
- 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: Number of calendar days of absence from work per 103 hours of exposure to risk.
- The total number of absences from work and the respective absence rate relate to absence from work, registered as absence due to illness and sirk leave

PPC inspects contractor work crews and 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 licences and permits.
- Whether 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.

In 2018, 6 inspections were carried out on contractor work crews engaged by PPC and 5 were carried out on contractor work crews engaged by HEDNO. An inspector from the Occupational Health and Safety Department took part in the inspections.

# Health and Safety performance

PPC HEALTH AND SAFETY DATA	2016	2017	2018
Total No. of accidents <sup>1a</sup>	60	50	42
Total No. of fatal accidents <sup>1b</sup>	1	0	0
Fatal accident frequency rate <sup>2</sup>	0.81	0	0
Accident frequency rate <sup>3</sup>	2.77	2.37	2.12
Total No. of days of absence due to accidents	7,576	1,819	1,355
Accidents severity rate <sup>4</sup>	0.35	0.08	0.07
Total No. of days of absence from work <sup>5</sup>	64,692	54,231	23,603
Absence rate <sup>5</sup>	2.47%	2.05%	1.05%

2016		16	20	17	2018		
ACCIDENTS	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	59	1	50	0	42	0	
PPC contractor accidents <sup>1</sup>	1	0	7	1	11	0	
Third party accidents <sup>2</sup>	1	0	0	0	0	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 relate to 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 (by private citizens) to request that specific parts of the network be disconnected.

In 2018, no fatal accident involving PPC employees occurred during working hours.

Following the fatal accident that took place in 2017 to a contractor at the Kardia Field Mine, during the operation and handling of a Clark-type lift truck, PPC initiated a series of actions for the prevention of similar accidents, including among others:

- Notification of the personnel of the West Macedonia Lignite Centre on the conditions of the accident that took place. More specifically, the supervisory engineers of contracted projects as well as PPC's work crews (which have and operate similar machinery), were instructed to carry out immediate checks to investigate whether the Clark-type lift trucks were legitimately used in all projects, whether they held a maintenance and operation certification, as well as whether the Clark-type lift trucks' operators were authorized to use them.
- Collaboration with the competent Safety Technicians, for informing the associated personnel at their work places and distribution of relevant information material.
- The potential risks during the operation of the Clark-type lift trucks at the sites, and the necessary precaution measures that ought to be taken and adhered for the prevention of similar accidents were analysed by the Safety technicians and presented at the periodic health and safety training seminars, attended by PPC's full-time employees.
- Any defects on the floors where the Clark-type lift trucks operate were inspected and fixed and their pathways were marked with an appropriate colour.

		201	16	
PPC UNITS	No. OF ACCIDENTS	ACCIDENT FREQUENCY RATE	No. OF DAYS ABSENT DUE TO ACCIDENTS	ACCIDENT SEVERITY RATE
Mines Business Unit	41	5.15	7,020	0.88
Generation Business Unit	18	1.92	534	0.06
Supply Business Unit	1	0.54	22	0.01
Other Units/headquarters	0	0.00	0	0.00

# WORK ACCIDENTS

Numbe of non-fatal accident



At PPC sale office



In activicites unrelated to lignite-fired generation



In activities related to lignite-fired generation activities in the geographical region of West Macedonia



Out of the 42 non-fatal occupational accidents involving PPC's employees, 1 occurred at PPC sale offices in the Attica Regional Unit, 7 occurred in activities unrelated to lignite-fired generation (1 in Megalopoli, 2 on Crete, 2 on various Aegean islands, 1 in the Arta Regional Unit and 1 in Xanthi Regional Unit), while 34 involved lignite-fired generation activities in the geographical region of West Macedonia (32 in the Kozani Regional Unit and 2 in the Florina Regional Unit).

Out of the 11 non-fatal contractor accidents, 10 took place at the West Macedonia Lignite Centre and one in Acheloos river complex.

From the above, the need to continue the inspections of the contractors' work emerges.

The absolute number of accidents exhibited a decrease (from 50 in 2017 to 42 in 2018), which resulted in the subsequent decrease of the accident frequency indicator's value (despite the fact that the total actual working hours corresponding to the hours of exposure to risk, decreased), as well as the accident severity rate.

The Occupational Health and Safety Department ensures that PPC's Accident Prevention Policy and its effectiveness are fully documented and systematically evaluated. In 2018, 2 accident statistical analysis reports for 2017 (1 for PPC and 1 for HEDNO), and 1 report/commentary on the features of accidents involving personnel of the Mines and Generation Business Units for the year 2017 were published. The commentary on the most severe accidents was sent to all PPC Business Units to prevent similar incidents from occurring again.

2017			2018				
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
31	4.09	636	0.08	29	4.41	660	0.10
15	0.08	719	0.08	12	1.38	644	0.07
2	0.01	20	0.01	1	0.52	51	0.03
2	0.12	302	0.12	0	0	0	0

# Support to employees and their families

The Occupational Health and Safety Department's Social Workers Subsection of the Occupational Medicine Section is engaged in offering individual and family counselling and support to employees, briefing them and referring them to the competent agencies, preparing detailed social surveys and brief statements of recommendations/findings etc.

In 2018, the Social Workers Subsection prepared 124 social surveys regarding the provision of financial aid to employees. 29 employees received counselling and support and confidential informative memos were issued.

In 190 cases, employees were provided with guidance, counselling about how to address their personal problems, and when deemed necessary, they were sent to specialised centres and services outside PPC.

As part of the Social Worker's visits in the provinces to identify and address problems, 13 visits in PPC's and HEDNO's Units 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, psychotherapy, psychological evaluations through collaboration with competent services, bodies outside PPC, Occupational Physicians and Social Workers. At the same time, a psychological support programme is being carried out 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 region and members of their families.





SOCIAL SURVEYS
124

EMPLOYEES
RECEIVED
COUNSELLING
AND SUPPORT
29



EMPLOYEES
WERE PROVIDED WITH
COUNSELING
ABOUT HOW TO ADRESS
THEIR PERSONAL PROBLEMS



VISITS IN PPC'S AND HEDNO'S UNITS

13



In 2018, the Psychologist's Offices in Thessaloniki and Ptolemaida were visited by 45 people (employees and members of their families) for the provision of psychological and counselling support and 338 sessions were administered (28 people - 208 sessions in Thessaloniki and 17 people - 130 sessions in Ptolemaida).

It is mentioned, that for the Social Workers Subsection's and the Psychologist's Offices' activities, strict personal data protection is adhered.

# 5.6 INTERNAL COMMUNICATION

PPC, communicates on a regular basis with its employees through the Corporate Affairs and Communications Department, addressing key issues related to the developments in the electricity market, the Company's various actions/initiatives and energy saving

Since June 2018, the Company's new Intranet Portal has been put into operation, introducing a new, direct and modern means of communication for all employees. Among the Portal's features that facilitate users' everyday life, are its simple operation, its enhanced information search capabilities, the use of multimedia and the ability for users' to create/edit webpage content.

Some important actions that were carried out in 2018, were communicated to the Company's employees through the Portal, such as PPC employees' new contract of group insurance, the General Data Protection Regulation, PPC's Code of Conduct, as well as the Personnel new evaluation system. In addition, the Portal, displays information in relation to energy saving in the workplace.

Other internal communication actions implemented in 2018 are the following:

- The personnel is briefed each month about European energy market issues based on the EURELECTRIC information bulletins.
- Executives and personnel receive weekly, monthly and special online briefings about:
- Current statutory, regulatory and other ongoing issues at various levels (European Commission, European Parliament, etc.) of direct concern to European energy businesses.
- Studies, reports and so on, about the state and prospects of energy and electricity
- · Comprehensive memos are drafted about contributions made at colloquia. conferences, etc. held in Greece about energy, energy technologies, environmental protection policies, etc. that are of interest to PPC executives and personnel.

• Updates were send to the employees on different actions that the Company carried out, such as: full scale emergency drills as part of the ESP that PPC carries out in its facilities, anniversary celebrations for Women's Day, the anniversary of the Battle of the Power Station in Keratsini in 1944 etc., as well as cultural events attended by the Choir of PPC-HEDNO.

# 5.7 REGULATORY AND LEGISLATIVE COMPLIANCE

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

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 Regulations. In most cases, given the gravity 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 Regulations. In 2018, disciplinary proceedings were initiated against 9 employees due to corruption issues. 1 out of these 9 employees was definitively dismissed without compensation, while the other 8 employees were temporarily suspended without pay.

In 2018, there were no final criminal courts convictions on matters falling within the criminal offenses of corruption, abuse of power, embezzlement, theft, infidelity, corruption, bribery, fraud, forgery, false testimony or falsification of documents, use of false testimonies and official secrecy violation.

Within the year there were a total of 9 legal proceedings against Company's employees. One (1) for breach of duty, two (2) for infringement of environmental legislation, two (2) for criminal infidelity, two (2) for fraud, one (1) for blackmail and breach of duty and one (1) for embezzlement. Five of them (5) are in progress, while the other four (4) ended with an acquittal or with an exculpatory decree for the accused.

In 2018, PPC paid fines of € 146.9 thousand for labour issues.







# **6.1 ENVIRONMENTAL MANAGEMENT**

Most electricity generation activities are regulated by strict laws, regulations and permits at global, European, national and local level. PPC manages many different energy sources and technologies with different environmental characteristics and challenges as part of its activities. It recognises that environmental performance is key to the sustainable development of enterprises and to improving their competitiveness.

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

Furthermore, there are Environment Sections at the individual power generation facilities (at lignite centres and at power plants).

# **Environmental Management Systems**

To ensure continuous improvements in its environmental performance, PPC has put in place Environmental Management Systems at its power generation facilities. PPC is in the process of gradually obtaining certification for these systems. To date PPC has certified Environmental Management Systems (ISO 14001:2015) for the Western Macedonia Lignite Centre and the following power plants which generate around 93.3% 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-Filota	Komotini	Chania	Arachthos
Kardia	Aliveri	Linoreperama	Acheloos
	Megalopoli V	Skyros	Nestos
		Soroni Rhodes	Ladonas (HPP)

Note: The plants that are operated by the PPC subsidiaries, Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A., also hold certified Environmental Management Systems (ISO 14001:2015).

In 2018, the transition to the new version of ISO 14001:2015 and the re-certification for the aforementioned seventeen (17) of PPC's Thermal and Hydro Power Plants (TPP and HPP) was successfully completed, following auditing by Independent Certification Bodies. In addition:

- An initial ISO 14001:2015 Certification for HPS Hilarion (which is part of Aliakmonas hydroelectric power plants) has been successfully completed. The Certification has been included in the ISO 14001:2015 Certificate of Aliakmonas hydroelectric complex.
- A new ISO 14001: 2015 Certificate for TPP Soroni Rhodes was successfully obtained.
- Environmental Management Systems (EMS) according to ISO 14001:2015 were developed and have been implemented for APPs of Chios, Kos, Karpathos, Samos and Lemnos.
- Three (3) In-House seminar cycles on the "New national plan and regular environmental inspection programs-procedures, breaches and penalties" (Kozani 16.01.2018 and Athens 18 and 19.01.2018) were successfully carried out. Around 100 of PPC's staff, mainly from Generation Units and Mines, took part in the seminars.
- The design of Environmental Management System Inspection seminar cycles, according to ISO 14001:2015, to be implemented during 2019-2020, was completed.

PPC operates various laboratories to help ensure compliance with the environmental terms and conditions under which its power plants operate, to support implementation of Environmental Management Systems and to enable it to comply with requirements that mandate environmental reporting to the competent authorities (such as annual reports in the context of the European Emissions Trading Scheme). These labs which operate at the PPC Testing, Research and Standards Centre (TRSC):

- Analyse fuels, lubricants and water used by PPC in its engines.
- Carry out analysis on the water and solid waste PPC generates.
- Develop new photometric methods to measure additional environmental parameters such as ammonia, phenol, hexavalent chromium and cyanide compound levels in liquid waste.
- Calibrate measuring devices of PPC's Plants.

In 2018, the Testing, Research and Standard Centre (TRSC) extended its Scope of Accreditation by becoming accredited as a tests/calibrations laboratory with new







tests/calibrations and remained accredited as Type B Inspection Body. For 2019, further extension of the Scope of Accreditation for Tests and Calibrations is being examined. In addition, a possible expansion of the scope and range of services offered is being investigated, in order to meet further needs of the Greek and international industry.

# 6.2 CONSUMPTION OF RAW MATERIALS. OTHER MATERIALS AND ENERGY

# Use of raw materials and other 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 produces. 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 (LFO and diesel) to generate electricity.

RAW MATERIALS	2016	2017	2018
Lignite-solid fossil fuels (tons)	31,427,537	35,368,005	26,961,900 (36,625,870)
LFO (tons)	876,505	900,586	862,437
Diesel (kilolitres)	339,396	435,859	342,100 (354,470)
Natural Gas (kNm³)	1,074,750	1,398,707	1,199,614
Desulphurisation limestone (tons)	318,412	401,953	2,300 (326,352)
Lubricants and mineral oils without PCBs (tons) (kilolitres)	5,488 1.296	6,145 1.100	5,482 (5,529) 0.975 (1.194)

Note: For comparability purposes, the figures that are in brackets include the consumption of the subsidiaries Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A. for 2018.

In 2018, 21.5 tons of combustion improvers and quantities of lubricants and PCB-free oil (289 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.

# **Energy consumption**

PPC's own energy consumption primarily relates to power generation. When PPC consumes energy this is primarily related to electricity generation, to the running of the Company's buildings (for heating/cooling and electrical purposes) and to use of its vehicles (service and corporate vehicles).

Total direct energy consumption (excluding the consumption from the two subsidiaries) was 241.9 PJ in 2018. In comparison to 2017, the following were observed:

- reduction of lignite's presence in PPC's total energy consumption (due to the formation of the two new subsidiaries that operate the following lignite Units: Unit III of the Megalopolis A' TPP, Unit IV of the Megalopoli B' TPP and Meliti TPP),
- reduction of natural gas presence, as the generation of electricity by natural gas decreased by 17% or 1.3TWh and
- increase of hydroelectric power plants generation by 1.59TWh (46%) due to the adverse weather events that took place in the spring of 2018 and the mandatory use of hydroelectric generation for flood management safety purposes.

Consumption figures can be broken down as follows:

- Fuel use at thermal Units was 223.7PJ (accounting for 92.5% of overall energy consumption). This figure includes consumption by the Plants themselves (0.08PJ) and consumption for district heating schemes (2.08PJ).
- Electricity generated by PPC hydroelectric power plants (around 7.5% of overall energy consumption).
- Fuel consumption for vehicles (24.4TJ) and to heat buildings (5.3TJ). Overall, these two categories account for 0.01% of total energy consumption.



**21.5** tons of combustion improvers were consumed



289 containers without PCBs





- PPC runs a fleet of 1,501 vehicles including 1,081 with ordinary licence plates, 173 which are only used within the boundaries of the Company's premises as well as 247 vehicles with licence plates issued with Prefectural authorisation. Data is available about fuel consumption and vehicle usage for 79% of the vehicles with ordinary licence plates. Those vehicles travelled 4.08 million Km.
- Fuel consumption data for buildings only relates to buildings in Attica (covering a surface area of 530,000m<sup>2</sup>, which consist of offices, substations, storage areas and archives) which account for 27% of all PPC buildings (both rented and owned). 42% of the consumption figure relates to natural gas. This does not include electricity consumption in buildings (10.96GWh) 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 2018 was calculated at 52.7MJ/€.

When taking into consideration the energy consumption figures of the subsidiaries Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A., then:

- total energy consumption in 2018 amounted to 291PJ, exhibiting a 2% decrease compared to 2017.
- while energy intensity decreased by 14% compared to 2017 (from 61.2MJ/€ in 2017 to 52.7MJ/€ in 2018).

# 6.3 GREENHOUSE GAS AND OTHER GAS EMISSIONS

# MATERIAL TOPIC: CLIMATE CHANGE AND GREENHOUSE GAS / PARTICLE EMISSIONS

Climate change is a global environmental problem, whose impacts affect all aspects of human life (the environment, health, the food chain, infrastructure, the economy and politics). According to the 5th IPCC assessment report, it is extremely likely that manmade GHG emissions (CO<sub>2</sub>, methane, nitrogen oxide and fluoride gases) are the main cause of climate change. In accordance with IPCC's report for 1.5°C, the temperature has already increased by 1°C, compared to pre-industrial levels.

When generating electricity from fossil fuels, GHGs and atmospheric pollutants are released into the air. In this regard, climate change and gas/particle emissions have been recognised as material matters by the Company's Management team, shareholders and investors, partners and suppliers, the State, regulatory authorities and public bodies, regions, local authorities and local communities, as well as by non-governmental and non-profit organisations. Keeping the rise in the average global temperature sufficiently below 2°C and the attempt to bring it even lower, to 1.5°C compared to pre-industrial age levels (targets which were agreed at the 21st Conference of Parties to the United Nations Framework Convention on Climate Change in Paris) require measures to be taken to curtail GHGs in the power generation sector.

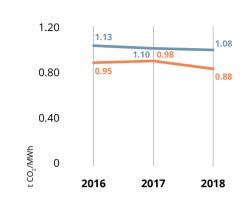
According to the most recent national survey of GHG emissions submitted by Greece to the Secretariat of the United Nations Framework Convention on Climate Change for the period 1990-2017, GHG emissions from burning fossil fuels at PPC's and independent producers thermal plants to generate electricity and heat in 2017 accounted for 34.99 million tons of CO<sub>2</sub> eq, which was around 37% of all national emissions which stood at 95.4 million tons of CO<sub>2</sub> eq.

Recognising the environmental impacts of its activities, PPC has put in place and is implementing control and prevention programmes. These programmes are based on systematic monitoring of PPC activities and their impact on the environment.

# **Greenhouse gas emissions**

GHG emissions from thermal Units (which are the main source of PPC emissions) are monitored in line with European Commission guidelines on plants participating in the European Union Emissions Trading Scheme (EU ETS) and monitoring programmes developed by PPC and approved by the Ministry of the Environment and Energy.

# Average CO, emission factor



All PPC's units avarage CO, emission factor

PPC's thermal units avarage CO<sub>2</sub> emission factor







Emissions from the thermal power Plants are considered to be direct emissions (Scope 1, to use the terminology of the GHG Protocol Initiative). Methane  $(CH_4)$  emissions from the mining of lignite at PPC mines and fuel consumption at company buildings and by vehicles are also included in the same category. Indirect emissions (Scope 2) from electricity consumption at PPC (self-consumption by Power Plants and electricity consumption at the Company's buildings and other facilities) are not included as they have already been included in the Company's direct emissions. Emissions from business flights were calculated as 'Other indirect emissions' (Scope 3).

GREENHOUSE GAS EMISSIONS	TYPES	2016	2017	2018¹		
Operation of power Plants	Operation of power Plants					
Per fuel (kt CO <sub>2</sub> )	Scope 1	28,468	31,794	23,828 (29,574)		
Lignite (kt CO <sub>2</sub> )		22,430	24,734	17,694 (23,280)		
Fuel oil (kt CO <sub>2</sub> )		2,758	2,834	2,714		
Diesel (kt CO <sub>2</sub> )		830	1,078	846 (887)		
Desulphurisation (kt CO <sub>2</sub> )		129	167	8.7 (143)		
Natural gas (kt CO <sub>2</sub> )		2,267	2,927	2,512		
Plants not included in EU ETS system (kt $CO_2$ )		54	54	54		
Other activities						
Lignite mining 2 (kt CO <sub>2</sub> eq)	Scope 1	684	770	587 (798)		
Buildings <sup>3</sup> (t CO <sub>2</sub> )	Scope 1	324	494	352		
Fuel for vehicles <sup>3</sup> (t CO <sub>2</sub> )	Scope 1	4,000	2,250	1,788		
Flights 4 (t CO <sub>2</sub> )	Scope 3	336	457	422		

Note: Other indirect emissions from electricity imported by PPC are not counted since detailed data about the power plants and/or power systems that generate such imported electricity are required, and that data is not available.

- 1. For comparability purposes, the figures that are in brackets include the emissions from the subsidiaries Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A.
- 2. The emission factor from the national emissions inventory has been used. To calculate the Global Warming Potential of methane, the value which appears in Annex III of Decision 24/CP.19 was used (GWP = 25) so that the relevant national obligations conform to the UN Framework Convention on Climate Change (UNFCCC) and European Commission figures.
- 3. The emission factors proposed in the IPCC Guidelines (2006) were used to calculate emissions from fuel consumption at buildings and by vehicles.
- 4. Business flight emissions were calculated by allocating the flights to various categories (domestic, European and transatlantic flights). The emission factors proposed by the GHG Protocol were used.

In 2018,  $CO_2$  emissions from PPC's generation Units amounted to 23.8Mt. The emissions from PPC's facilities and its subsidiaries (Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A.) decreased by 7% compared to 2017 (from 31.8Mt in 2017 to 29.6Mt in 2018). The average rate of  $CO_2$  emissions by the Thermal Power Plants of PPC and its subsidiaries (1.14t  $CO_2$ /MWh) was up by 3.9% compared to 2017 levels, while the average emission rate for all thermal and hydroelectric Units was down by 2.7% (from 0.98t  $CO_2$ /MWh in 2017 to 0.96t  $CO_2$ /MWh in 2018). The relevant figures for exclusively PPC's power plants are 1.08t  $CO_2$ /MWh (thermal Units) and 0.88t  $CO_2$ /MWh (all Units).

The emission intensity (defined as GHG emissions from electricity generation and the mining of lignite/revenues from the sale of electricity)

- of PPC in 2018 was estimated at 5.3CO<sub>2</sub> eq/€
- of PPC and its subsidiaries was reduced by approximately 2% compared to 2017 (from 6.7Kg CO₂ eq/€ in 2017 to 6.6Kg CO₂ eq/€ in 2018)

The values of the average thermal plant emission rate depend on the quality of the lignite extracted and the percentage of lignite and natural gas used to generate electricity, in the overall context of how the electricity market operates. In 2018, the presence of lignite-fired generation in the total net power output of PPC's thermal Plants increased to 58% (from 57% in 2017), while the presence of natural gas Plants reduced to 25% (from 27% in 2017).

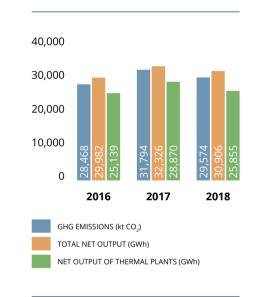
The value for the overall emission rate is affected to a major degree by the participation of hydroelectric Plants in the total electricity generation mix. In 2018, the quantity of electricity generated by hydroelectric Units rose by 46% compared to 2017 (1,595GWh), due to the adverse weather events that took place in the spring of 2018 and the mandatory use of hydroelectric generation for flood management safety purposes. This resulted in the hydroelectric Units' increased contribution (16%) to the overall power generation by the Power Plants of PPC and its subsidiaries.

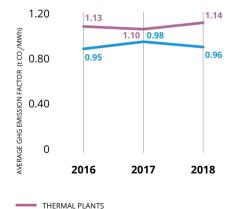
Overall, PPC (including its subsidiaries Lignitiki Megalopolis S.A. and Ligninti Melitis S.A.) has managed to reduce the  $CO_2$  emissions rate of its overall power generation system by approximately 26.6% compared to 1990 (1.3t  $CO_2$ /MWh).

# **EU Emissions Trading Scheme**

The Emissions Trading Scheme (ETS) is one of the European Union's main tools for reducing greenhouse gas emissions. ETS was launched in 2005 and the third phase of its operation started in 2013 (2013-2020).

# Net output (in GWh) and greenhouse gas emissions (in kt CO<sub>2</sub>) from the power plants of PPC and its subsidiaries (Lignitiki Megalopolis S.A. and Lignitiki Melitis)







In 2018 the CO<sub>2</sub> emissions of the new Power Plant in South Rhodes were verified and included in the ETS for the first time. In addition, two new subsidiaries (Lignitiki Melitis S.A. and Lignitiki Megalopolis S.A.) were formed, acquiring 3 of PPC's lignite Units, namely Unit III of Megalopolis A' TPP, Unit IV of Megalopoli B' TPP and the Unit of Meliti TPP. All Units continue to participate in the EU Emissions Trading Scheme. At the end of 2018, the number of PPC Power Plants covered by the ETS, excluding those that are operated by its subsidiaries, were 27.

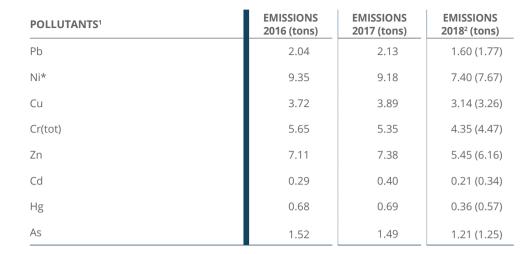
The free CO<sub>2</sub> emission allowances, that were allocated to PPC (for the operation of the district heating schemes) in 2018, were 53.04 thousand. PPC handed out 25.7 million permits, as follows: 23.77 million allowances regarding its Plants' operation, 1.14 million allowances handed out to Lignitiki Megalopolis S.A. for the emissions of Megalopolis A' TPP in the first half of 2018, as well as 0.78 million allowances handed out to Lignitiki Melitis S.A. for the emissions of Meliti TPP in the first half of 2018. Expenditure for CO<sub>2</sub> emission allowances increased to € 279.5 million in 2018 compared to € 141.6 million in 2017 due to the increase in the CO₂ emission allowances' average price from € 5.71/tons to € 11.93/tons, despite lower emissions being generated (23.4 million tons compared to 24.8 million tons). It is noted that for 2018, as a result of the acquisition in advance of certain CO<sub>2</sub> emission allowances, the average price was contained to a lower level compared to the average spot price (€ 15.89/tons).

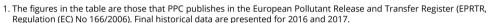
# Air pollutant emissions

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 crossborder pollution. The most important air pollutants are Sulphur Oxides (SO<sub>2</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 2018, the majority of the pollutant gas emissions (PPC and its subsidiaries) decreased compared to 2017, due to the increased power generation from PPC's hydroelectric Units.

POLLUTANTS <sup>1</sup>	EMISSIONS 2016 (tons)	EMISSIONS 2017 (tons)	EMISSIONS 2018 <sup>2</sup> (tons)
Sulphur oxides (SO <sub>x</sub> )	30,400	38,500	28,784 (32,075)
Nitrogen oxides (NO <sub>x</sub> )	44,300	46,300	40,754 (43,384)
Particle emissions (PM)	2,760	3,820	2,763 (2,853)





<sup>2.</sup> For comparability purposes, the figures that are in brackets include the emissions from the subsidiaries Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A.

The Transitional National Emissions Reduction Plan for the period 2016-2020 (in implementation of Article 32 of Directive 2010/75/EU) requires a linear reduction (between 2016 and 2019) of overall annual emissions by units included in the plan (for SO<sub>2</sub> and particles), while also allowing gradual implementation of the necessary environmental investments at those plants, while for NO<sub>v</sub> emissions, compliance must take place by 1.1.2016. The Plan includes the Agios Dimitrios, Lignitiki Melitis and Lignitiki Megalopolis TPPs, while the Amyntaio and Kardia TPPs are under a limited-duration derogation (with no more than 32,000 operation hours per flue, from 1.1.2016 until 21.12.2023).

In the context of the Plan, the Company has set out its policy and defined how it will operate its lignite-fired P Plants over the time period specified, the actions and environmental projects which are required, and the timeframe for implementing them, coupled with the longer-term maintenance plans it has for those facilities.

The investments being made primarily relate to projects to reduce NO<sub>v</sub> emissions (such as replacing existing burners with new low-NO<sub>v</sub> emission ones, installing additional and/or modifying existing gas afterburn systems, recycling cold flue gases and in general any other primary measures deemed necessary to achieve the targets set) at the Agios Dimitrios and Megalopoli TPP Units, as well as projects to reduce SO, emissions at the Agios Dimitrios TPP (Unit V). The relevant procedures for implementing these projects and signing contracts for them are under way. The





following points are important in this regard:

- For the environmental adaptation of Agios Dimitrios TPP's Unit V, the following actions were decided:
- ° The construction of a flue gas wet desulphurisation plant at Unit V of Agios Dimitrios TPP (forced oxidation wet desulphurisation using lime). The project was assigned to the lowest bidder J&P-AVAX Group in June 2017 for € 68 million. The required licences for the project have been issued and the construction works are expected to begin.
- ∘ The upgrade of the boiler for the reduction of  $NO_X$  emissions by adopting direct measures. On 24.6.2014, the relevant agreement was signed with SOLERGON S.A. at a contractual price of € 2.94 million. Performance tests and the procedure for the Project's Temporary Acceptance (Provisional Acceptance Protocol 06.11.2018) have been completed.
- For the environmental adaptation of Agios Dimitrios TPP's Units I- IV (NO<sub>x</sub> emissions), the following actions were decided:
- o The upgrade of TPP's Units I and II boilers for the reduction of  $NO_x$  emissions through the adoption of direct measures. On 23.11.2015 the relevant contract with METKA S.A. was signed at a contractual price of € 13.75 million. According to the planning, the installation works in Unit I began in October 2018 and are expected to be completed by April 2019. The implementation of the Contract is in progress. The project's works on Unit I commenced on 10.10.2018 and are expected to be completed by April 2019. Subsequently, works on Unit II will start, which are expected to be completed by October 2019.
- The upgrade of TPP's Units III and IV boilers for the reduction of NO<sub>x</sub> emissions through the adoption of primary measures. On 12.11.2015 the relevant contract with ERGOTEM S.A. was signed at a contractual price of € 14.82 million. The implementation of the Contract is in progress. Equipment installation work has been completed and Units III and IV are in the commissioning phase.
- The interconnection of Unit's I-II heat exchangers with the TPP's Units III-IV existing installed energy retrieval systems. On 29.5.2015 the contract with the contractor of the project ERGOTEM S.A. was signed at a contractual price of € 2.884 million. The equipment's installation was completed in December 2017. In 2018, Units II-IV were put in semi-commercial operation.
- The implementation of water injection tests at the Unit's I-IV mill outlet, for the decrease of temperature and the reduction of NO<sub>v</sub> emissions.

- For the environmental adaptation of Agios Dimitrios TPP's Units I- IV, with respect to SO<sub>2</sub> emissions:
- A call for tenders was issued on 16.05.2018 for the project of procuring and installing a wet desulfurization system at Units III and IV. Tenders have been submitted on 25.09.2018 and currently are in the evaluation phase.
- The direct investigation for the adoption of the dry desulfurization system, aiming
  for the best possible management of the amended, short-term needs of TPP's
  Units I-IV, was decided. This investigation will include the trial programming of
  Unit IV new operational conditions, following the changes from the NO<sub>x</sub> reduction
  project.

In order to monitor the amount of emissions discharged into the atmosphere, PPC operates a network of 28 stations that measure air quality and meteorological parameters in the wider areas around its Power Plants and Mining sites. This network is expandable when needed. The relevant authorities are systematically briefed, wherever necessary, about air pollutant emissions through annual and quarterly reports, in accordance to the decisions approving the environmental terms and conditions. In the event of excessive emissions, or damage to pollution control equipment, and in other relevant cases, a report is submitted immediately, within 24 hours.

# PPC air quality measurement stations in the wider areas of the generation Units and mines

LOCATION	NUMBER OF POWER PLANTS	MEASURED AIR POLLUTANTS
North System <sup>1</sup>	8	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	2	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>
Total	<b>28</b> <sup>3</sup>	

- 1. The North System comprises of the PPC power plants in the Region of Western Macedonia.
- 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.
- It is noted, that Lignitiki Megalopolis S.A. operates an additional 3 stations, that measure air quality and meteorological parameters, while Lignitiki Melitis S.A. operates 2 stations.

In addition, measurements are carried out for (a) noise and vibration levels, on a monthly and 6-month basis, in 9 locations at the villages of Agios Christoforos, Karyochori, Spilia, Pteleonas, Agios Dimitrios, Akrini, Ryaki, Pontokomi and Proastio, which neighbor the Mines of the West Macedonia Lignite Centre, and for (b) vibration levels in areas of the Mines, where explosions take place (Mavropigi Mine western slope, Southern Field Mine, Kardia Field Mine and Amyntaio Field Mine).

In 2018, as in previous years, the Critical Environmental Issues Management Team was assembled, comprising of staff from the Generation and Mines Business Units. The Team's task is to constantly monitor the results of air quality measurements and to develop a specific strategy to deal with and limit exceedances of the permissible limits to the minimum possible.

# Ozone-depleting substances and fluorinated greenhouse gases

PPC's installed cooling capacity for its central air-conditioners at buildings in Attica is 3,573 RT (12.57MW). The cooling fluids used at units are either categorised as ozone-depleting substances (ODS) or fluorinated greenhouse gases.

The fluorinated gases used in air conditioning systems are R407C, R410, R422D and R134A. In 2018, the quantities filled were 145Kg in total and correspond to 279 t  $CO_2$  eq. emissions. In line with legislative requirements, no existing facilities were topped up with R22, which is listed as an ozone-depleting substance.

6.4 ACTIONS TO REDUCE GREENHOUSE GAS EMISSIONS

# MATERIAL TOPICS: ENERGY EFFICIENCY / NEW TECHNOLOGIES AND PROMOTION OF RENEWABLE ENERGY SOURCES

Investments in new technologies to improve energy efficiency and promotion of renewable energy sources are aspects which are deemed material by Company management as well as by all stakeholders. Improving energy efficiency makes a positive contribution to the Company's financial results, while further promoting RES reduces the Company's exposure to fluctuations in carbon prices in the EU's ETS. At the same time PPC recognises its own responsibility for GHG emissions resulting from its operations and helps effectively limit such emissions and thereby combat climate change.

PPC recognises the impact of climate change on all sectors of the economy, as well as its own responsibility as regards greenhouse gas emissions from its operations. Over the years PPC has been investing to improve the energy efficiency of its thermal power plants, improving the characteristics of the energy mix for electricity generation and developing hydroelectric power plants and RES projects. As a result, there has been a decrease in the average  ${\rm CO_2}$  emission factor of the PPC's electricity generation system over time.

# PPC's capital expenditure plan

As part of the PPC's strategic priorities, the Generation Business Unit has undertaken to implement investment projects to replace obsolete Power Plants with new, environmentally-friendly, cutting-edge, more efficient Power Plants. The following can be noted regarding the progress of the relevant investment projects in 2018:

- The Megalopoli V Unit was brought into commercial operation on 27.01.2016. Performance tests of the Unit have been completed and the relative evaluation report was submitted by the Third Party to PPC. Moreover, the Unit's compliance tests with the Management Code of the Independent Power Transmission Operator (IPTO) have been completed. The Unit's Temporary Acceptance Protocol has been approved and it has been included in IPTO's Dispatchable Units Register.
- In 2018, the Civil Engineering Works for the new thermal power plant at Ptolemaida (Unit V) were continued. It's mechanical and electrical equipment is in production. The plant runs on pulverized lignite, with a gross capacity of 660MW and is capable











# WIND ENERGY PARKS



of generating 140MWth of thermal power for a district heating scheme. There are plans to install a  $\rm CO_2$  capture and compression system at this Unit (which will replace the decommissioned Ptolemaida TPP) when  $\rm CO_2$  carbon capture technology (Carbon Capture readiness) is ready.

• In 2018, the new Southern Rhodes Thermal Power Plant was put into operation. The Plant consists of 7 similar 4-stroke diesel power units with a total net output of 115.439MW, fuelled by LFO, but also capable of burning natural gas. It is located at Piso Kambos and Plaka Steni in Southern Rhodes and is expected to replace older, less efficient Units at the Soroni TPP in Rhodes.

To optimise mining operations at the Ptolemaida Mines run by the Western Macedonia Lignite Centre, a project is currently under way to connect the Mavropigi mines via conveyor belts with the Kardia and Agios Dimitrios TPPs. This is the first phase of a wider project to interconnect all Ptolemaida Mines to the TPPs in the area via suitable homogenisation systems. The benefits include improving the quality of the fuel supplied to the TPPs, thereby improving the environmental performance of the power plants and also reducing costs.

More information about the PPC Capital Expenditure Plan is included in the 2018 Annual Report.

# Renewable energy sources

Apart from developing low carbon technologies, the PPC environmental strategy also includes significant investments to increase the share of power generated by utilising Greece's hydrodynamic potential and by developing projects that use renewable energy sources (through PPC Renewables, a PPC subsidiary, in collaboration with other private investors). The Company's initiatives, that are carried out through PPC Renewables, are presented in Section 3.12 of this Report.

The Company takes advantage of the fact that Greece is intensely mountainous and so has built dams and created reservoirs to utilise the country's hydrodynamic potential to ensure that supply meets demand in each local catchment area. Today, PPC owns and operates 16 major hydroelectric power plants in various regions of Greece.

Note that the Sfikia hydroelectric power plant on the Aliakmon River and the Thisavros HPP on the Nestos River are pumping plants which store potential excess hydroelectric energy to distribute it when there is excess demand compared to output.

The following specific points should be borne in mind with regard to the development

of hydroelectric plants (more information is also available in the 2018 Annual Report):

- Operational tests at the Units comprising the Hilarion HPP (with an installed capacity of 157MW, and estimated new electricity output of 330GWh) have been completed and in February 2018 the registration procedure to IPTO's Dispatchable Units Register was completed.
- Civil works construction is in progress as well as studies for electromechanical equipment. The procurement, installation and operation of electromechanical equipment is in progress. The operation of the Project is estimated to begin within the first half of 2021.
- The Joint Ministerial Decision approving the environmental terms and conditions for the Mesochora HPP (the hydroelectric project upstream on the Acheloos River 2x80MW and 1x1.6MW) was issued. It is expected that PPC will complete works for the conservation of a part of the Mesochora village. The drafting procedure of the remaining projects' Tender Notices, which is estimated to be commenced in 2022, is being scheduled, in conjunction with the land expropriation procedure of the remaining areas surrounding the Dam's Reservoir and Mesochora's Sectors A, B and C as well as with the fulfilment of the requirements introduced by the new Joint Ministerial Decision approving the environmental terms and conditions.

# Other initiatives

In order to reduce the environmental footprint of its operations, and to play an active role in international endeavours to combat climate change (by limiting emissions and impacts and by adapting practices), PPC participates in a number of voluntary initiatives and research programmes and takes a series of relevant measures. In this context, it participates in EURELECTRIC's climate change adaptation and decarbonisation working group.

PPC pursues ongoing efforts towards research and development, aiming to innovatively resolve the Company's different needs and issues, as well as expand its innovative culture towards all of its activities. In order to increase PPC's participation in research and development activities, research proposals are being developed, in cooperation with research institutes.

Example research programs are outlined below:

• Research program CROSSBOW (Cross Border management of variable renewable energies and storage units enabling a transnational Wholesale market), funded by





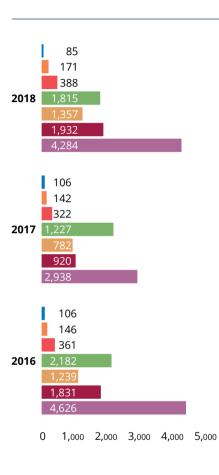
the EU Research and Innovation programme Horizon 2020. 26 partners are involved in the program, whose duration is 48 months. As part of the program, PPC cooperates with the National Kapodistrian University of Athens. The program's objective is to foster the cross-border management of RES in conjunction with the use of energy storage technologies, therefore achieving a higher uptake of RES, decrease of the network's operating cost and improvement in the financial benefits from RES and Energy Storage.

- National action "RESEARCH CREATE INNOVATE"
- Research program COFORMIT ("Contribution of the tree-planted areas of West Macedonia Lignite Centre to the protection of environment and the mitigation of climate change).. The program is implemented in cooperation with the Department of Forestry and Management of the Environment and Natural Resources of the Democritus University of Thrace and LANDRES. The objective of the program is the development of a methodology for the estimation of CO<sub>2</sub> capture from PPC's tree-planted areas, the installation of a monitoring system that records seasonal and interannual changes of CO<sub>2</sub> capture, the estimation of the suspended amount of particulates that can be retained, as well as the creation of a prototype park for recreational and environmental education purposes.
- Research program CO<sub>2</sub>-BIOPRODUCTS ("Bioconversion of CO<sub>2</sub> into high-added value bioproducts through sustainable microalgae cultivation processes"). PPC participates in the program as a coordinator, in partnership with the Chemical Process and Energy Resources Institute of the Centre for Research and Technology Hellas, four (4) research institutes and universities as well as with a food company. The objective of the program is to harness the CO<sub>2</sub> from the power plants' flue gases, through the use of special microalgae strains, that can simultaneously capture CO<sub>2</sub> and produce high-value commercial products, such as fats, oils and biomass.
- Research program CO<sub>2</sub> FUELS ("Scale up of Electrochemically Promoted Catalytic Hydrogenation of CO<sub>2</sub> for fuel production"). The objective is to carry out an experimental investigation of the conversion of CO<sub>2</sub>, captured from the flue gases of power plants, to light hydrocarbons, using electrochemically promoted monolithic reactors containing thin porous Ru films, or employing fixed bed semi-pilot scale reactors utilizing nanodispersed catalysts based on Ru supported on ionically conducting carriers which act as operando promoter donors. PPC participates in the program through TRSC. The partners in this program are the

- Department of Chemical Engineering of the University of Patras, the Centre for Research and Technology Hellas and the private company KAPA DYNAMIKI ATC (Anonymous Technical Company).
- Research program BIOMEK ("Bioconversion of lignite power plant emissions to fuels and fine chemicals"). The BIOMEK program investigates the valorization of CO<sub>2</sub> from PPC thermal power plant emissions through their non-photosynthetic biotransformation via fermentation of metabolically engineered extremophile microbes to fine chemicals, that could be used in the chemical industry, or biofuels, that can be used for transportation and co-production purposes. The program is carried out in partnership with TRSC and Chemical Engineering Science Institute of the Foundation for Research and Technology.
- Research program BEWEXMIN, whose duration was 3 years, was completed in 2018.
   The objective of the program was the development of technologies that ensure the safe and efficient operation of bucket-wheel excavators under tough geological and metallurgical conditions.

**Wind-Energy Park** Xirolimni Sitias, Lasithi Roof with photovoltaic energy upgraded building - PPC Kalithea Facilities Managment Awards

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



AGRAS, EDESSEOS

TAVROPOS (PLASTIRAS HPP)

ARACHTHOS (POURNARI I & II, AOOS)

NESTOS (THISAVROS, PLATANOVRYSI)

ACHELOOS (KREMASTA, KASTRAKI, STRATOS)

ALIAKMON (HILARION, POLYFYTOS, SFIKIA, ASOMATA)

LADONAS (LADONAS HPP)

# **6.5 WATER MANAGEMENT**

Developing Greece's hydrodynamic potential 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 created. At the same time, PPC recognises 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 maximising the overall social and environmental benefits.

PPC also places particular emphasis on systematically monitoring the country's hydrological potential 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

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

<sup>\*</sup> 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

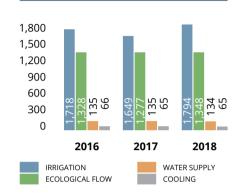
2018 was a year with medium hydraulicity, with water inflows to reservoirs up by approximately 56% compared to 2017.

Hydroelectric projects ensure flood protection and meet both the water supply and irrigation needs of adjacent areas. In addition, dams ensure a minimum continuous supply of water in the riverbed (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 competent regions (for annual and daily scheduling) taking into account the system's energy requirements.

# Water management at thermal power plants

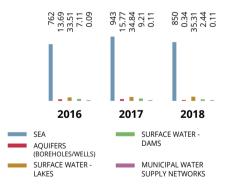
Water is abstracted in the area around thermal power plant from various sources and for various uses, such as for cooling the power generation towers.

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



Note: The PPC reservoirs mostly provide water to Thessaloniki, Agrinio, Karditsa, Lefkada and many areas near the

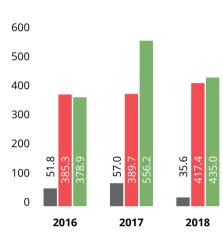
# Quantity of water drawn per abstraction source (millions of m<sup>3</sup>)



Notes: (1) This includes the quantity of sea-water used for cooling (2016: 759 million m3, 2017: 939 million m3, 2018: 846.7 million m3), (2) The data for 2018 do not include the subsidiaries Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A. The quantity of water that was drawn for the operation of Lignitiki Megalopolis' Units was 12.78 million m3 (aguifers), and 4.98 million m3 (surface waterdams) was drawn for the operation of Melitis TPP (Lignitiki Melitis).



# Quantity of water drawn per category of thermal power plant (millions of m³)



LIGNITE PLANTS
OIL PLANTS
NATURAL GAS PLANTS

Notes: (1) This includes the quantity of sea-water used for cooling (2016: 759 million m³, 2017: 939 million m³, 2018: 846.7 million m³). (2). The data for 2018 do not include the subsidiaries Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A. The quantity of water that was drawn for the operation of Lignitiki Megalopolis' Units was 12.78 million m³ (aquifers) and 4.98 million m³ (surface water-dams) was drawn for the operation of Meliti TPP (Lignitiki Melitis).

Experts from the Company prepare mine drainage studies every year. In addition to containing data about the quantities of water pumped out during the previous year, these studies also show the hydrogeological conditions in the area around each mine as extraction work progresses, and an assessment of the impact of pumping activities on the aqueous environment in the area is made, and measures to limit that impact are proposed.

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 9.78% for the lignite-fired Power Plants and 61.17% for oil-fired power Plants. Please note that the estimated recycling rates above do not include the quantity of sea water used for cooling. The amounts of water recycled and reused at the Units of Lignitiki Megalopolis are 20.9%. Please note that the estimated recycling rates above do not include the quantity of sea water used for cooling.

# Water management at lignite mines

In areas where mining activity is carried on, pumped water is used to meet the needs of the mines (which is either groundwater to protect excavated areas from water ingress, or surface water from the drainage pumping stations located on the mine floors). Furthermore, depending on needs, in the context of existing established policy of good cooperation with local communities, water is made available to neighbouring municipalities to irrigate local crops or for other uses. At the same time, excess amounts of water are returned to natural bodies of water in the region, thereby improving the water balance and their overall quality.

It should be noted that the Company makes a positive contribution to maintaining the Soulou canal in the Ptolemaida area, ensuring that it is sustainable and guaranteeing ecosystem balance.

USAGE CATEGORY	USE OF WATER (millions of m³) 2018(¹)
Damping down (roads, ash, etc.)	2.91
Water supply to mines (for personnel and buildings)	0.54
Irrigation	5.00
Natural bodies of water <sup>2</sup>	25.38
Use of thermal power plants	0.17
Total	34.00

1. The quantity of water used by the mines of Lignitiki Megalopolis S.A. is not included.

2. Surface water usage is included...

# 6.6 WASTE MANAGEMENT - USE OF BY-PRODUCTS

Rational waste management contributes to the Company's efficient operation and aids its compliance with environmental legislation, while minimising the environmental impacts on all affected parties.

# Solid waste and waste in liquid form

PPC generation processes (power plants and mines) generate solid waste which the Company ensures is suitably managed in line with the provisions of the applicable legislation. The criteria here are protection of the environment and sustainable development. Waste management is based on PPC cooperating with alternative management system companies that have been approved by the Hellenic Recycling Agency in line with the applicable legislation, and with collection companies that are licenced for each type of waste in relation to the transfer, management and reuse of waste in Greece and abroad. Meanwhile, PPC takes all necessary measures to minimise leakages/spillages and to ensure the safe collection of waste oils and liquid fuels in suitable tanks.

During 2018, the following quantities of hazardous waste were transferred.

WASTE DESCRIPTION	EWC <sup>1</sup>	QUANTITY (tons)
Sawdust, shavings, cuttings, wood, particle board and veneer containing hazardous substances	03 01 04*	0.637
Wastes containing mercury	06 04 04*	0.01257
Waste printing toner containing hazardous substances	08 03 17*	0.172
Packaging containing residues of or contaminated by hazardous substances	15 01 10*	7.929
Absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by hazardous substances	15 02 02*	8.999
Oil filters	16 01 07*	0.912
Laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals	16 05 06*	2.028
Discarded inorganic chemicals consisting of or containing hazardous substances	16 05 07*	0.681
Discarded organic chemicals consisting of/or containing dangerous substances	16 05 08*	1.566

<sup>1.</sup> Codification according to the European Waste Catalogue (EWC).



PPC currently holds sixty six (66) 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		
Material and Purchasing Department				
Metals (iron, steel, steel ropes, etc.)	4,611.21			
Different types of cables	111.05			
Decommissioned machinery-vehicles	12 items	Sale through highest bidder tenders		
Other types of waste	626 types	blader teriaers		
Capacitors	1.59			
Waste oils/lubricants	2,365.93			
Thermal Power Plants Operation I	Department			
Print toner waste containing hazardous substances	0.27	Recovery/disposal		
Fly ash and dust from oil boilers	26.38	Recovery		
Discarded equipment containing chlorofluorocarbons, HCFC, HFC	0.58	Recovery		
Waste that contains mercury	0.57	Recovery/disposal		
Sludge from on-site treatment of discharged liquids containing hazardous substances and aqueous rinsing liquids	114.57	Recovery		
Waste-blasting material containing hazardous substances	5.63	Recovery		
All types of mineral oil	1,017.50	Recovery		
Oils, oils mixed with water, from oil/water separators	90.25	Recovery		

WASTE DESCRIPTION	QUANTITY (tons)	MANAGEMENT METHOD		
Thermal Power Plants Operation Department				
Waste oil and diesel	1,226.35	Recovery		
Packaging containing residues of hazardous substances or that have been polluted with hazardous substances	25.84	Recovery		
Absorptive materials, filter materials, wiping cloths, protective clothing polluted with hazardous substances	95.10	Recovery		
Oil filters	0.91	Recovery		
Rejected inorganic and organic chemical materials	18.52	Recovery		
All categories of batteries and accumulators	3.57	Recovery		
Waste containing oil	261.19	Recovery		
Construction materials containing asbestos	9.24	Disposal		
Excavation, Construction and Demolition Waste (E.C.D.W.), soil and stones containing hazardous substances	31.68	Disposal		
Used active carbon	12.09	Recovery/disposal		
Waste electrical and electronic equipment, fluorescent tubes and other mercury-containing waste	4.38	Recovery		
West Macedonia Lignite Centre Operational Support Department				
Ferrous scrap metal	908.08	Recovery		
Mixed metals	16.32	Recovery		
Copper cables used (30-35% copper content) and other cables	665.73	Recovery		
Used lead accumulators	4.24	Recovery		

WASTE DESCRIPTION	QUANTITY (tons)	MANAGEMENT METHOD
West Macedonia Lignite Centre Op	perational Support Depa	artment
Used contaminated absorbents and filters	31.17	Recovery
Waste from electronic equipment	146.47	Recovery
Lights, fluorescent bulbs and batteries	1.31	Recovery
Waste oils/lubricants	346.56	Recovery
Waste from oil separators	9.71	Recovery
Damaged high pressure flexitubes	9.75	Recovery
Packaging with hazardous material deposits	0.90	Recovery
Paper	34.00	Recovery
Packaging (paper, cardboard and plastic) and plastic	67.05	Recovery
Mixed municipal waste	233.99	Recovery
Empty barrels that contained lubricants	68.62	Recovery

Note: The figures have been calculated based on those cited in packing lists, delivery notes and invoices from collectors/ hauliers. For decommissioned vehicles, the data comes from their disposal certificates. The terms 'recovery' and 'disposal' are used in accordance with the provisions of Annexes I and II of Section B of Law 4042/2012.

# Use of by-products

The main PPC by-product is fly and bottom ash while gypsum is produced in large quantities by the desulphurisation 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 2018, the burning of lignite at the Company's thermal power plants produced nearly

5,324 thousand tons of fly ash and 222 thousand tons of bottom ash.

- 4.55 million tons of ash were deposited along with inert materials in the mines of the Western Macedonia Lignite Centre.
- 0.91 million tons of ash were deposited along with inert materials in the mine of Amyntaio.
- 86.1 thousand tons of fly ash were sold in 2018.

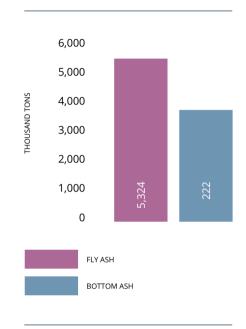
To limit environmental impacts from transporting ash to disposal sites, in 2016 a project was launched to construct conveyor belts to carry the ash generated, from the Agios Dimitrios TPP to the network of conveyor belts at the Southern Field Mine. There the ash is mixed with mine overburden and intermediate materials and then co-deposited of 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 decrease 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 plant, and in accordance with the Best Available Techniques Manual for Large Combustion 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 authorisations 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.

# **Producted ash from lignite burning in Thermoelectric Plants** during 2018



It is noted that since the 2nd quarter of 2017 the conveyor belts that carry the ash generated, from the Agios Dimitrios TPP to the network of conveyor belts at the Southern Field Mine, where the ash is mixed with mine overburden and intermediate materials and then co-deposited of in the mine's deposition sites, are fully operational.

	2016	2017	2018	
Sea water for cooling (millions of m³)				
Lignite-fired power plants	-	-	-	
Oil-fired power plants	382.74	387.08	414.90	
Natural gas-fired power plants	375.89	552.61	431.85	
Treated liquid waste (millions of m³)				
Lignite-fired power plants	21.54	21.76	12.81 (19.50)	
Oil-fired power I plants	0.15	0.15	0.15	
Natural gas plants	1.33	1.58	1.33	

Notes: (1) The quantities of waste are measured by flow meters 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.

It should also be noted that a significant quantity of treated waste is disposed of for various purposes, primarily irrigation, especially during the summer months. The quantity disposed of in 2018 was approximately 535 thousand m<sup>3</sup>.

# 6.7 BIODIVERSITY

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 minimise the impact of PPC operations on the environment and the ecosystem.

Around the mines, for decades now PPC has been implementing extensive soil rehabilitation schemes and takes measures to optimise the way in which affected areas are rehabilitated and to select the most appropriate final land use, taking into account a number of parameters, such as:

- the local terrain and the 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.

Rehabilitated land at the Ptolemaida mine covers approximately 3,127ha, including 431.0ha covered with fresh soil, 907 ha of farmland, 7.5ha of lakes, and 1,781ha planted with trees. In 2018, the following soil rehabilitation projects were carried out:

- Tree planting: 2 areas of 168.1ha of total stretch were rehabilitated, where around 104,000 trees (2,750 nigra and brutia pinus, 6,547 different types of oak trees, 85,000 of black locust etc.) were planted. A 0.3ha area was created, where special activities will be performed. Also, maintenance works of tree-covered areas and green spaces (pruning, thinning of trees, lawns' and irrigation networks' restoration work etc.) at the Mines of the West Macedonia Lignite Centre were carried out (contract 2018.334/WMLC).
- Experimental farming: In the 6.2ha experimental orchard, plant protection and herbicide projects were carried out with conventional means (contract 2018.334/ WMLC). Herbal plants were planted at the outer deposition of the Main Field Mine (0.25ha of lavender and 0.15ha of lemon balm, 0.15ha of thyme, 0.15 of mountain tea). The farming yield from the barley crops at the outer deposition of the Main Field Mine (0.65ha of experimental crops and 3ha of commercial crops) amounted to a total of 11,300Kg, which was offered to institutions and local communities.
- Soil tests: Soil tests of 96 samples from 24 locations at the outer deposition of the Main Field Mine and from 8 positions at the outer deposition of the Amyntaio Field Mine were carried out, in cooperation with the School of Agriculture and Laboratory of Applied Soil Science of the Aristotle University of Thessaloniki. The objective was to assess the suitability of these new soils for agriculture.





# Rehabilitated land at the Ptolemaida mine (ha.)



The rehabilitated land at the Amyntaio mines covers approximately 1,062ha. In 2018, Primary Schools of Ptolemaida planted trees at the outer deposition of the Amyntaio Field Mine, using equipment and plants that PPC provided, as part of the Environmental Education program. An assessment layout of Amyntaio Physical Medicine and Rehabilitation Centre's surrounding areas was carried out and 20 linden trees together with 30 oak trees were planted. Also, around 186 hectares were planted at the outer deposition of the Amyntaio Field Mine and the works related to the cleaning and tidying up the mines and maintaining the forests (pruning and thinning of trees, etc.) and green areas (lawns, hedges, etc.) were carried out.

In 2018, PPC leased the following areas of cultivable land to others:

- 314ha at the deposition sites of the Ptolemaida Mines
- 114ha of rehabilitated land at the deposition sites of the Amyntaio Mine

Rehabilitation projects were put to special uses such as a pilot hydroponic cultivation greenhouse using district heating, in cooperation with the National Agricultural Research Foundation and the University of Applied Sciences of Florina, artificial wetlands, a forestry park, outdoor disposal areas at the Main Field Mine in Western Macedonia planted with all species of trees that flourish in Northern Greece, leisure parks, exhibition centres, waste disposal facilities small birds and animals farms and moto-cross tracks, to name a few. A section of the land covered with fresh top soil at the Western Macedonia Lignite Centre has been transferred to DIADYMA S.A. to house waste management facilities.

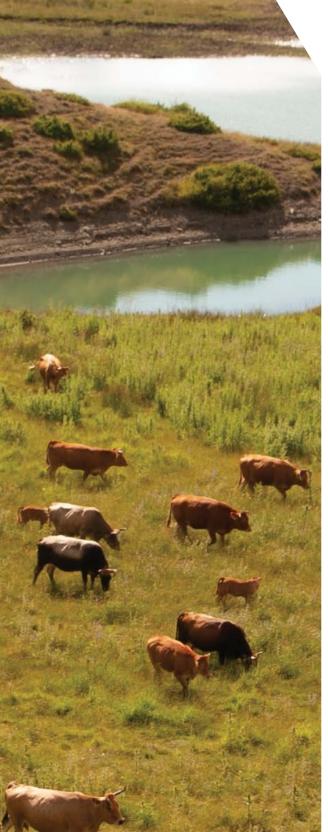
Other actions taken by PPC to protect biodiversity are:

- artificial plantations of forest species have been created based on the species deemed suitable for the specific location of the mine deposition sites, and
- artificial nests and habitats have been created and small wetlands developed to encourage a growth in bird populations.

# 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 / REHABILITATION ACTIONS IN 2018	
Lakes along the course of the Rivers: Acheloos, Aliakmon, Nestos, Arachthos, Megdova, Ladonas and Agras	Dams and the surface of reservoirs in the immediate area around dams are regularly cleaned to remove wood and rubbish (ongoing action).  Boats and personnel are provided to take samples of waters from all lakes and measurements of qualitative and biological parameters are performed by the Greek Biotope -Wetland Centre.	
River Nestos and the Thisavros and Platanovrysi Reservoirs	PPC/Nestos Complex is also cooperating with the Interbalkan Environment Centre to implement actions to measure quality and biological parameters on river and lake waters in the Nestos system (ongoing action).	
HPP Units	The operation of the Power Plants' Units is scheduled. The objective is to ensure the minimum ecological flow to the riverbed, downstream of PPC's works.  Constant operation of the automated telemetric network, that collects physico-chemical and meteorological data, and stores data at the local hydroelectric power plants and the Hydroelectric Generation Department's main server.	
Wider area around PPC projects on the Nestos River	Meteorological data is being collected following the installation of two meteorological stations at locations proposed in the study to identify potential changes in microclimates in the wider area of PPC projects on the Nestos River (ongoing action).	
Aoos Springs Hydroelectric Power Plant	Materials were cleared from the water abstraction pump room.  Partnership was developed between the Municipality of Metsovo, the Epirus Region, the Northern Pindos National Park Management Agency to combat foreign species in the reservoir at the Aoos Springs Hydroelectric Power Plant (ongoing action).	
Hilarion HPP	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. In 2017, it was decided to perform a comprehensive study to update and co-ordinate the aforementioned studies. The study, which is still in progress, 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.	
Skopos - Papadia Dam	In 2017, the licensing of the Municipal Unit of Meliti Municipal Unit Water Supply System project was completed. This is a compensatory project for the Skopos-Papadias Dam. Works for the rehabilitation of forest vegetation and the improvement of landscape following interventions during construction of the Dam will gradually start to be implemented in accordance with the approved forestry restoration studies.	



# 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 of the Environment NATURA maps) cover an area of 77.54Km<sup>2</sup>.

NAME OF WATER SOURCE LOCATED WITHIN A NATURA 2000 AREA	AREA COVERED BY PPC'S HYDROELECTRIC FACILITIES WITHIN PROTECTED AREA¹ (Km²)
Almyros, Chania²	0.08
Aliakmon (Asomata HPP)	2.98
Agras	9.41
Nestos (Thisavros)	27.25
Nestos (Platanovrysi)	2.63
Aoos	11.63
Tavropos (Plastiras HPP)	23.56
Total	77.54

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

# 6.8 REGULATORY AND LEGISLATIVE COMPLIANCE

PPC seeks to fully comply with national and European legislation and regulations on environmental issues. In 2018, fines of  $\in$  68 thousand were imposed on PPC regarding its non-compliance with the environmental legislation and regulation. PPC paid  $\in$  54 thousand in fines.

It should also be noted that PPC takes all necessary measures to ensure that it complies with the maximum permissible noise limits at its facilities, and in 2018 no fine was imposed on PPC in this regard.



<sup>2.</sup> 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.



# MARKET AND CUSTOMERS

# **MODERN PRICING POLICY**

PPC's pricing policy reflects modern trends in the retail market, and was designed to respond to customers' needs, both in terms of the new discount policy offered, and in terms of new tariff plans tailored to companies and groups.

# **CUSTOMER SERVICE**

**2,800,000** calls to 11770 | **96%** of calls were answered successfully

**106,000** customers electronic requests through the website www.dei.gr

80% of requests/complaints are answered within 1 day

**1,021,869** visits in PPC's electronic application

160,948 users of PPC's electronic application

# **PRODUCT AND SERVICES**



**6,920,424** connections | **663,642** registrations in the new e-bill platform | **470,446** special tariff beneficiaries **1,500,000 MWh** were allocated to companies through guarantees of origin

# **RESPONSIBLE AND SAFE ENERGY USE**



**16,143** users visited PPC's webpage "Save energy - Share life"

**500** packages with 5 energy saving lamps were sent to the residents of Kastelorizo and to the customers who visited PPC Sales Offices of Didymoteicho, Orestiada and Florina.

# 7.1 PRODUCTS AND SERVICES

The Company's main purpose is the supply of electricity to residential customers, professionals and large businesses nationwide.

PPC offers different tariffs for different customer categories. The tariffs depend on the voltage (high, medium and low) and on the use (residential, commercial, agricultural and street/square lighting tariffs). Since 2015, PPC offers the "Corporate Tariff" plan to large enterprises and groups (whose total annual consumption is equal to or greater than 10GWh) which have many customer service locations nationwide (100 or more connections) connected to the medium and low voltage networks.

RAE has decided that PPC, as the Universal Service Supplier, must undertake to supply electricity to small customers who have not found any other supplier or who cannot find one in the deregulated market taking into account existing commercial terms and conditions. Small customers include households and other customers whose power supply requirements are up to 25kVA. Based on December 2018 data, PPC had 30,000 small customers in the Universal Service scheme.

Detailed information about all PPC connections is available in section 3.1.

# **Tariff policy**

PPC's new tariff policy reflects modern trends in the retail market, and is designed to respond to customer needs, both in terms of the new discount policy offered and in terms of new tariff plans tailored to companies and groups. Additionally, the Company rewards household customers who regularly pay their bills on time, through an appropriately designed scheme.

The Company continues, for the third year running, to implement the "Consistent Consumer 15% Programme", which rewards professional and household customers who pay off their bill on time, by offering a 15% discount on their bill's electricity usage charges. In addition, from June 2017, the Company offers the "Prepaid Bill Plan" Programme to households, professionals, small and large businesses by providing a 6% discount on the bill's electricity usage charges to the customers who opt to join the Plan and prepay one year's electricity bills. Combining this with other available programmes, such as the 15% discount for customers who pay their bills consistently, customers can enjoy up to 21% off the electricity usage charges in their bills.

Since the end of 2017, PPC provides its customers with the option of choosing the "Monthly Billing" programme that will enable them to incorporate their electricity expenditure in their monthly budget. More in particular, customers receive an electronic

bill which consists of three consecutive estimated monthly bills issued based on the consumption of the previous year's corresponding period, while every four months they receive the final bill which is calculated based on meter readings taken by HEDNO.

PPC's tariff and commercial policies demonstrate in practical terms its support for households and businesses. Among other things, it has devised schemes to facilitate bill payment and put in place rewards for consistent households and professionals given the constantly worsening economic environment, contributing thus to preserving jobs and enhancing economic growth in Greece.

# Vulnerable customers

Since 2011 PPC has provided a Social Residential Tariff (SRT) in accordance with relevant government decisions. This SRT offers a discount on electricity supply charges (in €/kWh) for selected categories of consumers under the conditions that the government has laid down. More specifically, the Social Residential Tariff (SRT) was established for the protection of vulnerable consumer groups and is provided according to the Decision of the Ministry of Environment and Energy, Δ5-HΛ/B/ Φ29/16027/06.08.2010 (NOG B' 1403/06.09.2010), as amended and in force, according to the more recent Ministerial decision No YΠΕΝ/ΥΠΡΓ/892/152 (NOG B' 242 / 01.02.2018).

Following the decisions issued by the Ministry of the Environment and Energy concerning the Electricity Supply Code and the criteria that residential customers have to follow in order to enter in the Register for vulnerable customers, PPC fully adopted a series of additional, favourable arrangements to help vulnerable social groups pay their bills. Vulnerable groups (i.e. persons benefiting from the social residential tariff, large families and the elderly who meet the relevant criteria) can enjoy the following benefits:

- The due date of their electricity bills is extended from 25 days to 40 days from the date of their issuance.
- They can pay their electricity bills in monthly interest-free instalments required so as to ensure that each instalment is not more than half the value of the normal monthly cost for electricity consumption.
- Interest-free debt repayment plans can be settled in any case.

By the end of 2018, around 470,000 customers had joined the social residential tariff.









BENEFICIARIES OF SPECIAL TARIFFS	APPROVED APPLICATIONS IN 2018
Social residential tariff A	93,428
Social residential tariff B	360,476
Social residential tariff A - mechanical support	237
Social residential tariff B - mechanical support	5,297
Vulnerable groups with or without mechanical support	11,008
Total	470,446

### F-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 in the name of the customer
- 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 the "Monthly Billing" programme
- 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 2018, 663,642 connections were registered in the e-bill platform, with 42% of them having chosen to receive their bills only electronically. The customers' interest for the specific application is reflected by the fact that in 2018, PPC received a total of 19,000 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, through 800 5000 400.

PPC organised a promotion event for its e-bill service to its customers at the Syntagma

Metro station. More specifically, in December 2018, at the Metro station, properly trained staff informed PPC customers about e-bill and helped them register in the platform via tablets. The aim of this event was to:

- Inform customers on the e-bill service and its benefits.
- Assist customers' registration in the e-bill platform and more specifically to electronic bills.
- Reduce PPC's environmental footprint.
- Provide modern customer service, by taking advantage of the current technology.

# **Electronic contracts**

Aiming to further develop its electronic customer service, PPC intends to provide its customers with the capability of concluding electronic contracts. Within 2018, the systems' necessary preparations were carried out and the new service is expected to be available to PPC customers within 2019.

# **Archive digitalisation**

PPC is continuously modernising its procedures aiming at improving its customer service and at saving significant resources. In this context, it has established a new digitalisation programme for all new customer documentation and contracts, that will contribute to the gradual digitalisation and updating of the customer entire archive. More specifically, in 2019, a computerised application for the electronic storage of contracts and other relevant documents submitted by customers in pdf format was installed in PPC's information system and as of 01.09.2018 all Sales Offices have been integrated into this programme. In the meantime, through e-bill promotion initiatives, PPC's customer archive is being gradually updated.

The Company harmonises its procedures in relation to its customers, in accordance with the General Data Protection Regulation (GDPR), thereby ensuring the security of their data.

# **Guarantees of Origin**

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

# CUSTOMER SERVICE 11 770

Since 2016, PPC has approved the pilot granting of Guarantees of Origin, from its certified HPPs' generation to its important customers. In 2018, the Company granted Guarantees of Origin to COSMOTE Group companies, as well as to ALPHA BANK, Piraeus Bank, BIC-Violex, MEGA Disposables, Air Liquide, YOULA GLASSWORKS, MASOUTIS, AB VASILOPOULOS, HELLENIC HYPERMARKET SKLAVENITIS S.A., FRAPORT Regional Airports of Greece and the Athens International Airport "Eleftherios Venizelos". The total Guarantees of Origin granted for the year 2018 amounted to 1,500,000MWh.

# Nationwide customer service line

PPC customers can now dial 11 770 to receive customer service instead of visiting one of PPC Sales Offices. In 2018, the 11 770 line received 2,800,000 calls. PPC successfully answered 96% of those calls (a successful call is one which PPC answered and there was a successful communication). It is noted that PPC customer service is also available in English, through 11 770.

# Alternative payment channels

PPC offers the option of alternative payment methods in order to improve its services and reduce the time of customer service.

PPC's customers can pay off their bills at all PPC Sales Offices, 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 Sales Office through the Google Maps application.

The bill payoff 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 standing order.

Moreover, bills may be paid to the approved by the Bank of Greece Payment Institutions and Electronic Money Institutions, as defined by Law 4021/2011 and Law 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.

Furthermore, bills may be paid to the approved by the Bank of Greece Agents of Payment Institutions and Electronic Money Institutions, as defined by law 4446/22.12.2016 on

electronic transactions. Customers can be informed on the service points through the webpages of each Institution.

Lastly, PPC's customers can pay off their bills through PPC's webpage (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 Sales Offices to pay their bills is steadily declining. More specifically, in 2018, it decreased to 18% compared to 20% in 2017.

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.

# **Debt Repayment plans and disconnections**

For several years now PPC has expressed its social awareness and responsibility by planning and implementing actions and debt repayment plans, depending on the category of the customers involved (residential, commercial, vulnerable groups, etc.) and how consistent they are in paying their bills, in order to ensure that they are all treated in the same way and in the most favourable way, as a response to the challenges Greek households and businesses are facing as a result of the current economic crisis.

With a view to improving service to customers wishing to enter into a debt repayment plan and reducing waiting time at PPC Sales Offices, PPC provides the option of a request being submitted over the phone through 11 700, without the customer having to visit a Sales Office.

It should be mentioned that PPC faces a major issue with overdue debts, which have risen significantly in recent years due to Greece's dire economic straits. Consequently, any decline in receipts collected is an issue of vital importance for PPC, since it affects business, competition and any prospect of growth, as well as PPC's ability to implement its societal programmes.

In order to improve the collection of overdue debts, PPC has implemented a comprehensive series of mutually complementary, scalable measures, which over the last couple of years have been intensified, to name just of few:

• Flexible debt repayment plans depending on customers' consumption and number of overdue debts. The plans aim to minimize the risk of new debts piling up, while



- Targeted legal actions taken against debtors with high and long-term debts.
- Informative flyers sent to customers with overdue debts, triggering them to settle their debts.
- Calls made to debtors though PPC Sales Offices.
- Cessation of services to strategic defaulters or to customers with multiple violations of the repayment plans, which lead to continuous increase of their debt.
- An extended incentive policy programme to residential and business customers with 15% discount on their bills from 01.07.2016, if they pay their bills on time.
- Management of a selected customer group with overdue debts, from collection agencies and law firms.

In November 2017, PPC, following a tendering procedure, hired a debt collector consultant, who developed specific debt management strategies. The Company's aim is not only to increase its liquidity, but also to upgrade its relationships with its customers and thus achieve a more meaningful communication with each customer. This strategy has already started to pay off and has resulted in the increase of liquidity, as indicated by the positive sign of the collection rate's indicator for 2018 (Revenue from bills (€)/Issued bills (€)). Also, a reduction in overdue debt by 4% compared to 2017 is observed, while for the low and medium voltage customers the debt is reduced by 21%.

PPC proceeds with power disconnections for customers who are proved to be defaulters or who exhibit illegal activity and who, despite their bill pay-off and instalment extension deadlines, continue not to pay their bills. PPC proceeds with these power disconnections in order to prevent any further financial cost being created, that will affect its already overloaded balance sheet. In 2018, 492,000 disconnections were carried out, with 70% of them involving household customers.

Only 54% of those customers disconnected for failure to pay, have settled their debt or have entered into a repayment plan. Such customers are usually reconnected on the same day. Of the rest 46% of those who were disconnected, 22% received a final bill, while the remaining 78% were not reconnected. According to PPC's estimations, a large percentage of these customers proceed to illegal reconnections, by interfering with the electricity meters without having settled their debts.

However, the Company issues a limited number of disconnection notices due to overdue debts to customers who have joined the Social Residential Tariff and have entered in

the Vulnerable Customers Register, as set by the State, within the 5 months as specified in the Electricity Supply Code (April-June και September-October). These notices are issued only if the Company has actually exhausted all possibilities to find a solution.

It should be noted, that in 2018 PPC expressed its social awareness, by strongly supporting the residents affected by the fires in East and Western Attica. PPC proceeded with writing off debts from electricity bills of the residents whose households and stores were destroyed, as well as to the households of the victims' families.

# 7.2 CUSTOMER RELATIONSHIP MANAGEMENT

# MATERIAL TOPIC: CUSTOMER SERVICE, INFORMATION AND SATISFACTION

Both PPC and stakeholders have identified customer service, information and satisfaction as a material topic. The Company constantly strives to improve the way it provides services to its customers to maintain high levels of customer satisfaction. Efforts are being made to strengthen our customer-focused approach, carry out research and examine complaints, taking into account consumer needs. PPC's main objective is to ensure quality customer service and to handle customer requests in the best possible way. It designs specific and uniform procedures to ensure rapid and effective handling of customer requests and complaints. In addition, PPC ensures to provide information to the public and raise awareness.

# Modern ways to approach customers

In addition to its Sales Offices, PPC uses the internet, electronic means of communication and social networking (Twitter, LinkedIn, Flickr, YouTube, Facebook) to communicate with its customers. In 2018, 10 commercial and 7 company news and customer service issues were communicated through Twitter, while through YouTube a total of 9 videos were uploaded, 2 of which were of commercial character and 7 with corporate content. As of 2018, the Company's Facebook page is in operation, on which 7 commercial and corporate posts were edited.

The PPC's website (www.dei.gr) provides information in both Greek and English. PPC's customers can be informed about new plans relevant to them, about commercial issues,



7 COMMERCIAL AND CORPORATE POSTS



9 VIDEO
7 CORPORATE CHARACTER
2 COMMERCIAL CHARACTER



10 COMMERCIAL AND
7 COMPANY NEWS AND
CUSTOMER SERVICE ISSUES



corporate news, as well as find answers to FAOs. In 2018, PPC's website had 3,292,947 visitors. There are also contact forms for each issue of concern (bills, general topics, personal detail changes, applications for registration in the Prepaid Bill Plan etc.) that customers can use. Consumers can also contact the Company by email on info@dei. com.gr in Greek or English. In 2018, around 106,100 electronic customer requests were received and around 56,000 requests for change/amendment of bill details were dealt.

PPC has developed a special iPhone and Android phone application (app) that allows users to gain immediate, reliable and rapid access to PPC services no matter where they are. By the end of 2018, 160,948 people were using the app, while the total visits reached 1,021,869. The PPC app offers all current rapid service options available from the Company online, such as e-bill, access to e-banking for online payment of PPC bills, change of billing address, find the nearest customer point of service and bill payment location, contact with PPC by phone or email, and access to HEDNO services such as scheduled power cuts and fault reporting. PPC can also send out messages relating to specific geographical areas. Generally speaking, the app has been designed to include the most popular customer service options for anyone on the go.

For people with visual impairments or reading difficulties, PPC also provides information about its services through audio messages.

According to the new corporate identity that PPC has adopted and is gradually being implemented to all PPC Sales Offices (Sales Offices in Serres, Alexandroupoli, Keratsini and Salamina were redesigned in 2018), Sales Offices have not only been renovated, making them safer and promoting the corporate image, but also have available special disability access ramps.

# **Customer service for corporate customers**

In 2017, the organisational structure of the Supply Business Unit was changed so that PPC could better meet its customers' potential and existing needs.

The company has proceeded to the classification of its customers into the following categories:

- Strategic Customers Key accounts: All High Voltage customers and customers of individual or multiple connections, regardless of voltage supply, with consumption above 10GWh/annum.
- · Large Customers Accounts: Customers of individual or multiple connections, regardless of voltage supply, with consumption between 1 and 10GWh/annum.

- · Medium Customers: Customers of Medium Voltage with consumption of up to 1GWh/annum and customers of individual or multiple connections (excluding household), regardless of voltage supply, with consumption from 0.5 to 1GWh/annum.
- Public Sector Customers: Customers of the narrow and wider public sector. regardless of voltage supply and consumption trends.

Each customer is assisted according to the modern principles and sale promotion practices adhered by trained employees on the entire territory of Greece. The employees possess specialized knowledge and experience in managing relationships with important customers, aligned with the modern presale-sale-after sale needs.

Priority is given in retaining and developing strategic customers. The aim is to achieve comparative advantage and increase customer loyalty, through proposals with added value (combined offerings of commercial terms and products/services) based on a winwin situation.

This approach is expected to contribute to the:

- Promotion of PPC's customer-centric character and improvement of the customer's perception of PPC.
- Efficient management of PPC's relationship with the customer and creation of an environment of trust.
- Addition of value to the product and ability of cost estimation from the part of the customer.
- Increase of customer loyalty score.
- Strengthening of PPC's margins and financial position.

# **Customer satisfaction surveys**

PPC conducts qualitative and quantitative surveys in the context of the customercentred approach which PPC has created in a systematic way in order to identify its customers' new needs and explore their views about the services being rendered.

In 2018, PPC did not carry out any new customer satisfaction survey, since the Company continued to operate based on the research results from previous years. More specifically, by taking into consideration and utilising the results from the survey that was carried out in collaboration with the National Technical University in 2017, PPC aims to enhance the Company's website exposure and especially the services and features found on the website. At the same time, it focuses on the website's functional



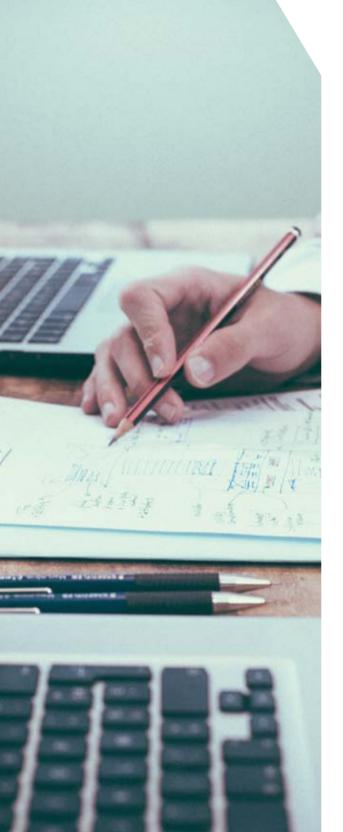








PPC's Mobile App.



and aesthetic upgrade by improving the user's experience. Moreover, PPC is exploring the possibility of adding additional features to the e-bill app.

# Managing complaints and customer requests

Any potential complaints from 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 (directly from customers, through the Ombudsman or the Hellenic Consumers' Ombudsman, etc.) or by email, or over the phone on the customer service line (11 770). An attempt to respond to all requests is being made.

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 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.

Customers' complaints focus on the following categories:

Debt settlement: PPC provides favourable debt repayment plans, seeking to serve its vulnerable customers in the best possible way, thus expressing its social awareness. Nevertheless, there are customers who, due to the prolonged economic crisis, cannot pay their instalments and overdue debts, resulting in the continuous increase of their debt. These customers request more favourable repayment plans, with more instalments and inclusion of their current bills in this plan. However, these requests cannot be always satisfied, and as result complaints are filed. This kind of complaints cannot be eliminated because PPC ought to operate by safeguarding its revenues from the sale of electricity, which is the sole source of funding that can sustain its operation.

Bill payment at Hellenic Post: In 2018, major problems emerged due to the delayed payment of customers' bills by the Hellenic Post to PPC. PPC immediately resolved the issue and proceeded with the required actions for the update of its systems as such that no further actions were required from its customers. The 15% discount for customers who pay their bills consistently was provided to the customers who had paid their bills

on time at the Hellenic Post, despite the fact that PPC received their payments with significant delay. The discount was applied on the customers' bills after PPC received the payment notifications from the Hellenic Post. At the same time, PPC informed its customers through appropriate press releases and posters at its Sales Offices.

Regulated charges for PSOs and ETMEAR: A significant number of complaints concern the PSOs (Public Service Obligations) and ETMEAR (Special fee for the reduction of  $\mathrm{CO_t}$  emissions) regulated charges. Following the optimisation of the PSOs calculation methodology, the number of customer complaints was significantly reduced. However, the unified price and calculation methodology of the Residential Off-Peak Tariff, resulted in new complaints submitted by customers who consume electricity at off-peak periods and have been benefiting from the reduced charges.

A great number of complaints are submitted in relation to the ETMEAR charges, which continue to constitute a large proportion of the customers' bills.

It is worth mentioning that these specific charges are outside PPC's sphere of influence.

Issues with HEDNO: A number of issues emerge on a daily basis from HEDNO's operations, such as false meter reading, no meter reading for a long time, faulty meters, delays in changing meters, etc. As a result, conflicts have been created between PPC and its customers due to the increased consumption charges or the accumulation of consumption charges in one bill. The effective management of such customer requests/ complaints solely depends on HEDNO. Some of these cases require special management due to the customers' difficulty in understanding billing details.

Registry of Agricultural Customers update: PPC, during the last few years, has been trying to update the Registry of Agricultural Customers who benefit from the privileged electricity tariff, in order to include activities other than crop irrigation.

Towards this direction and in line with the relevant legislation, the beneficiaries, who hadn't previously sent the required documentation, were asked to submit all necessary supporting documents within a specific deadline. Through this action, PPC received a number of questions and identified that there were difficulties in the issuance of the supporting documents from local authorities, especially in areas with high agricultural activity.

In order to facilitate farmers and reduce the submissions' processing time, PPC in collaboration with the departments of the competent Ministries, support the development of an electronic application, which will contribute to the clearing of the Registry of Agricultural Customers.

Implementation of the new Social Residential Tariff (SRT): Following the issuance of the new Ministerial Decision (NOG B' 242/01.02.2018), the categories of beneficiaries of the SRT and the eligibility criteria were amended. For the implementation of these new regulatory requirements, important and time-consuming configurations to the billing system and the interfaces with HEDNO were required. Therefore, during the first months of implementation of the new SRT, delays emerged in the issuance of bills.

The above change resulted in a lot of questions and complaints being submitted, which referred to the:

- a) inclusion/exclusion procedure,
- b) delay in the issuance of bills from February to April and
- c) understanding of the billing mode.

The problems were addressed and successfully resolved.

**Delay in customer service:** All the above issues resulted in a large number of customers presented in PPC Sales Offices, vast number of calls being received at 11 770 and increase of waiting time, causing strong complaints from the part of customers.

PPC systematically takes steps to improve and provide new services to its customers, while at the same time seeks to timely address any possible problems that arise and rely on the Company. In addition, it continuously comes down with proposals to the Government's bodies (Ministries, RAE, the Consumer's Ombudsman, etc.) with respect to regulatory issues in favour of customers and for the sake of the Company's sustainability.

PPC attempts to respond to customer requests and complaints as soon as possible and manages to respond to 80% of them within one day. It is to be noted that those requests/complaints that are answered in more than 3 days, primarily relate to cases that need to be forwarded either to the accounting offices of PPC's Main Services for actions and/or clarifications, or to the competent Sales Offices. In addition, delays may occur in cases that require further investigation due to their complexity and collaboration with different PPC Departments (such as Legal, or IT Department).

# 7.3 RESPONSIBLE AND SAFE ENERGY USE

Providing information to the public and raising awareness about energy savings and protecting the health and safety of consumers and users of electricity is a key concern for PPC.

Under current legislation (Law 4483/1965) internal electrical facilities must be re-inspected by licensed electrical fitters who issue a solemn declaration which is then submitted to

HEDNO. Re-inspections must be carried out at regular intervals which are specified in Article 5 of Decision No.  $\Phi$ .7.5/1816/88 of the Deputy Minister of Development (NOG 470/5.3.2004). Properties must be re-inspected at least every 14 years.

Based on the most recent HEDNO guidelines re-inspections may be required under these provisions when properties are being reconnected to the grid or when a name is changed. Re-inspection is no longer needed when changing tariff, switching supplier or installing a night-time tariff meter.

Since 2016, the brochure entitled Save Energy – Share Life became available on PPC's new website (www.dei.gr/el/green-pages). This website offers comprehensive information about energy issues and related EU announcements and provides information about Greenpasse, the way it can be acquired, as well as updates about the statutory and commercial framework relevant to them. In addition, the website offers user access to an online energy savings tool which has been available since early 2014 and which provides information and raises awareness among the public on the rational use of electricity. It also allows users to calculate their household energy consumption, while offering tips about how to save energy and improve home's energy rating by taking specific steps. According to PPC data, in 2018 alone, this website had 16,143 unique hits.

In 2017, under the energy efficiency regime of article 9 of Law 4342/2015, PPC was assigned from the Ministry of Environment and Energy to design and implement enduse energy-saving actions.

Following its sustainable policy and requirements of this Law, PPC proceeded during the year with the design of an educational programme for Elementary schools, aiming to provide information and raise awareness among students on energy and environmental issues. Furthermore, PPC scheduled the development of an online information platform regarding electricity consumption for customers of medium voltage, as well as the conduct of energy audits (to small and medium industrial customers). The aforementioned actions are expected to be carried out within 2019.

Additionally, in 2018 the following communications actions were carried out:

- Posts on social media (Twitter) with energy-saving tips.
- Shipping of 350 packages with 5 energy-saving bulbs together with an info-flyer to the residents of Kastelorizo.
- Shipping of 150 packages with 5 energy-saving bulbs to the customers who visited PPC Sales Offices at Didymoteicho, Orestiada and Florina in October 2018 (as part of PPC's participation in the National Customer Service Week).
- Distribution of flyers with energy saving tips from PPC's commercial and company kiosks in exhibitions and conferences.
- Distribution of flyers with energy saving tips at PPC's Sales Offices.







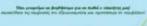
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Από την Τρίτη 17 Ιουλίου μπορείτε να παραλάβετε το δώρο σαs με τους λαμπτήρες εξοικονόμησης ενέργειας

> από την Οικονομική Υπηρεσία του Δήμου Μεγίστης, καθημερινές 10π.μ.-12μ.μ.



Καλό Καλοκαίρι!



Further information for the public on how to use energy safely was also provided by HEDNO, which in 2018, distributed info-flyers regarding the regulatory framework currently in force for electricity thefts.

Lastly, as part of the Erasmus+ European program (Climate Change Ready), PPC staff and employees from the University of Western Attica and the Centre for Renewable Energy Sources and Saving visited the Ralleio Geniko Lykeio Thileon of Piraeus, where they carried out an educational seminar regarding climate change and energy saving.

# 7.4 MARKETING COMMUNICATION PLANS

The Company seeks to inform its Stakeholders about the full range of its activities, such as tariffs, new large energy investments, renewable energy sources projects and environmental and social activities.

PPC communication plans are in compliance with the Hellenic Code of Advertising and Communication Ethics. The Code has been developed by the Advertising Self-Regulation Council, an independent, non-profit association. Its purpose is to implement ethical standards in all marketing communications. PPC verifies that its marketing materials comply with the Hellenic Code of Advertising and Communication Ethics and the current legal and regulatory framework for energy. As a result of this approach, in 2018 all PPC marketing and communication measures (including advertising and marketing campaigns) were fully compliant with the Code.

In the spirit of supporting the local communities in which the Company operates, PPC ensures that these areas are promoted through its advertising campaigns. Special care is taken to ensure that local communities are supported directly or indirectly.

# 7.5 RESPONSIBLE PROCUREMENT

PPC's procurement procedures are governed by Law 4412/2016 (NOG A' 147). The Company posts tender notices for works and supplies on its website, aiming at encouraging public dialogue in terms of full transparency and objectivity.

The Company is in constant contact with key suppliers to exchange views about how the equipment to be procured is working in order to transfer know-how to them.

The key procurement categories include materials and spare parts, supporting equipment, services, projects, liquid fuels, lignite (from third parties), natural gas, and purchase of electricity and GHG (CO<sub>2</sub>) trading allowances.

To ensure that contractors and any subcontractors comply with labour and insurance law in relation to their own staff, PPC includes a general clause in all contracts it signs according to which the contract may be terminated and the contractor may be excluded from future tender procedures in case of recurrent non-compliance. When paying contractors, PPC requests proof that the contractor has complied with its obligations to its staff and paid its employer social security contributions. In doing so the Company ensures that it cooperates with contractors who adhere to labour law and have their staff insured as specified by law. In 2018, no breaches of labour legislation were identified from cooperating contractors.

## 7.6 REGULATORY AND LEGISLATIVE COMPLIANCE

Compliance with applicable laws and other regulations on market, product and service issues is fundamental to the operation of PPC. However, some cases emerged that the Company had to handle in 2018.

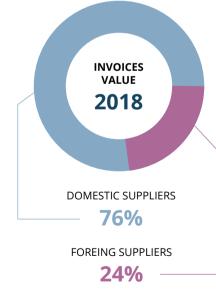
In 2018, 21 candidates in tender procedures filed administrative appeals against PPC in the pre-contractual stage. Fifteen (15) cases were examined by the Preliminary Appeal Review Authority and were terminated with the issuing of decisions from the said authority. For the remaining six (6) cases, the candidates appealed to Administrative Courts. Five (5) of these cases have been terminated, while one (1) case remains in progress since a cancellation request was filled by the candidate to the Council of State.

By judgment of the Athens Administrative Court of Appeal as of 2015 a € 4.4 million fine imposed by the RAE in 2013 was reduced due to PPC's breach of the regulatory framework in its dealings with industrial customers and failure to prepare tailored tariffs in good time. The fine was dropped to € 880,000 and as a consequence € 3,520,000 of the amount originally paid was returned to PPC. Nevertheless, PPC lodged an appeal in cassation in 2016 in order to have the rest of the € 880.000 fine overturned, which is still pending before the Council of State.

Following a 2014 final judgment from the Athens Multi-Member Court of First Instance, PPC was obliged to pay compensation of € 4,412,018.86 to a high voltage customer for violating Articles 18 and 86 of Law 146/1914 on unfair competition. PPC appealed that judgment in 2016 and is expected to be reviewed in 2019.

In 2018, there was no fine imposed on PPC from RAE and the Hellenic Competition Commission regarding issues of anti-competitive behaviour and monopolistic practices. Moreover, no complaints were reported with regard to the disclosure of personal data of customers, while no failure to comply with proper product and service labelling and information was recorded. Furthermore, there were no cases of PPC's products or services negatively affecting customers' health and safety.





Source: Recorded invoices on SAP (SAP MM and SAP FI)

Saving lamp promotion program in remote areas and islands Poster in Kastelorizo





# CONTRIBUTION TO SOCIETY

# **FOCUSING ON SOCIETY**

PPC attaches great importance to its relations with local communities and briefs both local communities and the authorities about any large new projects and invites them to participate in discussions on issues that could affect their activities.

# LOCAL COMMUNITY DEVELOPMENT PROGRAMMES



€ 693,220 for compensatory/benefit projects which are related to the generation activity

€ 22.2 mil. Lignite levy for local communities

€ 12.6 mil. for the expropriation of Pteleonas settlement

**2.1 mil. Gj** of energy was used for city district heating purposes

# **EMPLOYEE VOLUNTEER INITIATIVES**

€ 2.7 mil. were spent on rescue digs at the Ptolemaida and Amyntaio Mines

**1,163** blood units were collected through volunteering blood donation initiatives

**6,363** primary medical examinations were carried out on vulnerable population groups by the mobile healthcare unit

**4,504** kilos of fruit were offered from the West Macedonia Lignite Center

**299** stundents (high school/university) completed their internships at PPC

> **4,000** visited the historical exhibition "Saving the Power Station... A battle at the heart of Liberation", which took place at Agios Georgios TPP



## 8.1 LOCAL COMMUNITY DEVELOPMENT PROGRAMMES

PPC attaches great importance to its relations with local communities and briefs both local communities and the authorities about any large new projects and invites them to participate in discussions on issues that could affect their activities.

The Company is engaged in ongoing dialogue with local communities, involving Chief Officers, Directors of Departments, Heads of Units from thermal power plants, hydroelectric power plants and mines, as well as other PPC executives.

The Company works in partnership with stakeholders in taking decisions on energy planning and infrastructure development:

- Local communities in areas in which PPC power generation power plants are installed are involved with local government authorities, representatives of various agencies and organisations and local residents.
- The regional branches of the Technical Chamber of Greece express their views to local authorities, PPC and local community bodies.
- PPC's employee trade unions and associations are involved in decision-making by consulting on the relevant legislation.

Stakeholders participate in decision-making via the procedures specified in the legal framework, such as consultation, working alongside PPC's relevant committees and representatives of local community bodies or by attending info-events and conferences. Consultation is normally used when new projects are being licenced or when projects which have already environmental authorisation are being extended, upgraded or modified, when local communities and bodies need to express their views.

Staff from PPC's Mines Business Unit are involved in the statutorily-mandated process of consultation on mine environmental studies when obtaining environmental authorisation for such activities. In some cases, such as the approval for the Environmental Impact Study for the Ptolemaida Mines, PPC took the initiative of hosting a workshop at the West Macedonia Lignite Center facilities to discuss the study.

Working with other bodies such as universities, consultants, economic, commercial, technical and other bodies, PPC runs programmes and prepares studies to evaluate and manage the Company's impact on local communities:

# • Before PPC commences operations

In major new projects, PPC may prepare a social impact evaluation study for the

projects, engage in ex ante evaluation and calculate potential social repercussions from the new investment (during the construction and operation of the projects) in the specific geographical area. The aim of such a study is to identify processes and mechanisms that could be utilised to monitor impacts while implementing the project and to proactively address and offset potential risks or negative social repercussions that the specific project could cause.

An example of such study is the "Social Impacts Evaluation Study for the new Rhodes Thermal Power Plant" elaborated in 2013 in order to identify and analyse the expected social performance of the new power plant with a total capacity of 120MW which PPC planned to build in the "Piso Kambos – Plaka Steni" area, within the Kattavia Community in the southern part of Rhodes. The social impact analysis for the new PPC power plant relied on international standards and methodologies such as the Social Return on Investment (SROI) methodology.

# While PPC activities are under way/being implemented

PPC invests in its good relationship and constructive communication with the local communities in which it operates. The Company takes on social responsibility initiatives and develops special programmes, contributing in employment and business activities and takes measures for the protection of the environment while ensuring the inhabitants' quality of life. PPC's indicative actions are presented below in this section.

Based on studies that were conducted earlier in this decade, it is estimated that PPC has made a significant contribution to supporting jobs and the local economy in Western Macedonia, contributing to more

# After termination of PPC's operations

A characteristic example is PPC's participation in the Parliamentary environmental protection committee's meeting, which took place in June 2017. The agenda of the meeting referred to the environmental restoration of Western Macedonia's lignite fields following the exploitation of their deposits. In the meeting, all the issues which were directly linked to the environmental repercussions stemming from the use of lignite for electricity generation, were examined. On behalf of PPC, it was mentioned that all the interventions, which take place in the region of Western Macedonia, are carried out in line with approved environmental terms. In addition, the progress of PPC's lignite mines restoration and the implemented environmental terms for the

**Doctors of the World mobile unit** Ofrinio Kavalas



mines of Ptolemaida and Amyntaio, were presented. The participant representatives of the Region, the energy municipalities and the Kozani Region MPs discussed the specific characteristics of Western Macedonia's energy axis and the region's need to adapt to a reduced lignite exploitation period, when other financial activities, not related to the mining and combustion of lignite, will be developed. The Region, the municipalities and MPs submitted their propositions and requests for the gradual transition to this new regime.

To rehabilitate the wider area around the mines and preserve PPC's historical legacy in the post-lignite age, in 2016 the Company's Board decided to create a park to showcase Ptolemaida's lignite and industrial heritage.

# Compensatory/public benefit projects

When obtaining authorisation for the environmental terms and conditions of projects being implemented, PPC consults with the Ministry of the Environment and Energy and local bodies to specify what compensatory benefits/projects for local communities will be implemented. Consequently they are integrated into the Joint Ministerial Decision which approves the environmental terms and conditions for those projects.

The cost of public benefit projects associated with power generation for 2018, as described in the table below, amounted to € 693 thousand.

COMPENSATORY / PUBLIC BENEFIT PROJECTS	CLASS	PROJECT BUDGET ('000 €)	COST IN 2018 ('000 €)	ADDITIONAL INFORMATION
Payment of expenditures to the 30th Department of Prehistoric and Classical Antiquities	Contractual obligation	10,256.5	9.51	Archaeological works around the Hilarion HPP
Partial funding for the project of the Municipality of Deskati of Grevena Prefecture		1,900	153.99	Compensatory projects of the Municipality of Deskati around the Hilarion HPP
Study carried out by Region of Western Greece	Implementation of Environmental terms	200.21	60.06	
Purchase of tires for the Fire Department's vehicles at Ladona HPP	Contribution/sponsorship in kind	1.21	1.21	
Ministry of National Defence Hellenic Army General Staff Funding for Rhodes' military camp's shelter	Compensatory - Corporate Social Responsibility Project	60	20	
Municipality of Rhodes Kattavia sewage network (pumping station, external networks, biological wastewater treatment)	Compensatory - Corporate Social Responsibility Project	402	5.86	
<b>Municipality of Rhodes</b> Kattavia sewage network (internal network)	Compensatory - Corporate Social Responsibility Project	1,184	89.76	
Municipality of Rhodes Installation of lighting at municipal stadium of Gennadi	Compensatory - Corporate Social Responsibility Project	91.59	85.74	
Municipality of Rhodes Construction of pavements, application of tarmac and installation of road lighting at the local roads at Soroni Municipal Department located in the Kamiros Municipality of Rhodes	Compensatory - Corporate Social Responsibility Project	1,000	206.03	
<b>Municipality of Aliveri</b> Redevelopment of Zondou square and PPC Anenue	Compensatory - Corporate Social Responsibility Project	195.42	44.46	
<b>Municipality of Aliveri</b> Upgrade of Avlonari bazaar	Compensatory - Corporate Social Responsibility Project	160	5.67	
<b>Municipality of Aliveri</b> Completion of Aliveri center's redevelopment (first phase)	Compensatory - Corporate Social Responsibility Project	70.42	10.93	
Total			693.22	

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Some of the projects carried out by the Hydroelectric Generation Department are listed below:

- Organising a mountain triathlon in partnership with the Municipality of Gortvnia (swimming, mountain biking and mountain racing) -the Ladona 2018 X-event triathlon- held around Ladona reservoir on Sunday, July 1 2018 with the support of Ladona HPP.
- Involvement of Ladona HPP in the 6th Ladona-Fengarada Festival on the Lake hosted by the Municipality of Gortynia and the Gortynia Municipal Public Benefit Enterprise as part of their summer culture events.
- Carrying out the 6th Ladona lake clean-up, for which PPC/Ladona HPP cooperated with the club union of the former Kontovazaina Municipality, the Municipality of Gortina and the Gortina Public Welfare Corporation, on Sunday 30th September 2018.
- Blessing of waters in Ladona HPP dam for the 21st consecutive year, in cooperation with Ladona HPP and the Municipality of Gortinia, as well as in the Agia Varvara Lake, in cooperation with Aliakmonas complex and the Municipality of Veria.
- Funding of compensatory projects carried out by the Municipality of Deskati, according to PPC's pertinent Agreement.
- Distribution of stored inactive material from the Zerva tributary to the Region of Western Greece for the construction of the Agrinio-Karpenisi road.
- Distribution of stored inactive materials from Zervas tributary to the Municipality of Agrinio for the construction of regional works.
- Provision of space in the Stratos HPP facilities for the Water Ski Federation's training and competitions purposes.
- Provision of space in the artificial lakes of Kremasta, Kastraki and Stratos for the religious event of the blessing of the waters.
- · Visitor tours (for universities, schools, etc.) in the premises of Acheloos, Arachthos, Aliakmon and Nestos HPP complex.
- Renovation of the drinking water treatment system at Kremasta HPP and the Local Community of Agia Paraskevi.

Following the same path, the Mines Business Unit proceeded with a series of social

initiatives that contribute to society:

- · Maintenance, cleaning and operation works on the green spaces surrounding PPC's Lignite-miners memorial in Ptolemaida.
- · Maintenance, cleaning and operation works on the surrounding premises of PPC's kindergarden in Ptolemaida.
- · Cleaning of natural vegetation and maintenance of the surrounding area of the Ptolemaida Firefighter Academy.
- Installation of irrigation network and artificial turf in the surrounding area of the Ptolemaida Firebrigade.
- Cleaning of natural vegetation and maintenance of the surrounding area of the small chapel located in the Pontokomi forest.

# District heating schemes

Through programmes developed with local municipalities and the relevant municipal bodies, PPC utilises the heat generated by its lignite-fired power plants in Western Macedonia and Arcadia and provides the heat generated in the form of hot water to heat buildings to meet the town's needs in Kozani, Ptolemaida and Amyntaio. The cost of providing energy as part of these programmes is significantly lower than conventional heating methods.

These district heating schemes are a model for sustainable management as they generate numerous benefits to all parties involved. The most important benefits are (a) the reduction in air pollution since hydrocarbons and wood are not burned to generate heat, and (b) the financial benefits for local communities due to reduced heating costs.

Overall, in 2018, 2.1 million GI of energy were generated/used in district heating.

# Lignite levy

The lignite levy is an amount charged to promote the development of industrial areas where electricity is generated by the lignite-fired power plants in Florina and Kozani. The levy was imposed by Law 2446/1996 and amended by Law 4062/2012. In 2012, the levy increased from 0.4% to 0.5% of PPC turnover. The levy is used to finance infrastructure and environmental protection projects that bolster the economy in the specific areas which are affected by lignite mining and its combustion.







PREFECTURE	LIGNITE LEVY IN 2018 (€ '000)
Cozani	19,349
lorina	2,815
otal	22,164

# **Relocations and compulsory expropriations**

If it is necessary to compulsorily expropriate land or even relocate villages to build new power plants or to expand mines, PPC follows specific procedures that are fully in line with Greek law. More in particular, it complies with Law 2882/2001 which contains the codified rules on compulsory expropriations of land, and when expanding mines the provisions of the Mining Code contained in Legislative Decree 210/1973 are complied with.

One representative example is local community involvement in the Municipalities of Amyntaio, Eordea, Kozani and Florina, where important energy projects are implemented, in decision-making about relocating villages to allow PPC mines to be developed.

When PPC developed its mines in Western Macedonia, it was necessary to relocate the settlements of Kardia, Haravgi, Exochi, Komanos and Klitos. The settlements of Mavropigi, Podokomi and Kleidi have also been compulsorily expropriated and the beneficiaries have been paid compensation, while local communities are in the process of being relocated.

The relocations of the three settlements have not yet taken place. They are expected to be carried out once the steps which lie within the Greek State's remit are completed. The relocation procedure of the settlement of Pontokomi is at a more advanced stage. In Western Macedonia, the compulsory expropriation of the settlement of Pteleonas in the Municipality of Eordaia, located in the Kozani Regional Unit, was carried out in 2018 for general interest purposes (i.e. the extraction of lignite deposits that reside in the village's subsoil and the deposition of inactive materials). For the compulsory expropriation of the Pteleonas settlement, € 12,625 thousand have been paid. Lastly, in 2018, PPC completed all required actions regarding the compulsorily expropriation of land at Choremi Mine (CHOR 6), that involved the Tripotamos settlement of the Municipality of Megalopolis.

PPC follows the provisions of Article 28 of Law 3937/2011 and the articles 147 of Law 4495/2017 and 18 of Law 4585/2018 for the settlement of Akrini in the Kozani

Regional Unit and the settlement of Anargyri in the Florina Regional Unit. Compulsory expropriation and relocation procedures fall within the competence of the Greek State.

As part of land acquisition procedures, the Mines Business Unit has often set up groups comprised of executives and lawyers in order to negotiate direct purchases with residents in areas around the mines. Teams like these have been set up in Megalopoli in the Arcadia region, at Amyntaio and at Kleidi in Florina.

In addition to covering the cost of compulsory expropriation, PPC also supports the local residents by providing infrastructure (networks, roads, etc.), communal spaces, as well as churches, graveyards etc.

# Creation of farmland and concession to farmers

As part of its general environmental planning, PPC has rehabilitated certain areas as farmland which are conceded to farmers from local areas under annual nominal rent leases for cultivation purposes. One example is the western outer deposition site at Choremi, for which a special study was prepared so that all necessary infrastructure and technical works (roads, ponds) could be carried out with proper agricultural land management in mind in order to create flat surfaces suitable for cultivating crops or raising livestock. The fields created are considered to be 'model plots' and are leased to local farmers annually for nominal rents (see section 6.7).



€ 12.6 thous.

**EXPROPRIATION** 

«MODEL PLOTS»

OF THE

**PTELEONAS** 

**SETTLEMENT** 

# 8.2 SPONSORSHIP PROGRAMMES

PPC recognises the needs of the various areas of the country in which it operates and responds to these needs with sensitivity. Many of the Company's activities focus on local communities around its mining and power generation facilities. At the same time, given that its product reaches all corners of Greece, PPC runs programmes in other parts of the country as well.

## **Financial Aid**

In 2018, PPC provided € 1,822 thousand for projects in order to cover social needs in various sectors, such as the environment, energy, culture and education. To name just a few, financial aid was provided to the:

• Hellenic Institute of Entrepreneurship and Sustainable Development and the management body of the Parnitha National Park to carry out a specific environmental action.

- "tyΦoon MotoRacing", a student group from the University of Western Macedonia, to participate in the international competition Motostudent.
- "ELIZA", the society for the prevention of cruelty to children, to carry out training programmes to doctors and nurses.
- "Hyperion Robotics", a robotics team from the University of Western Macedonia, to participate in the European competition Robot Cities.
- "PROMITHEAS", a research team comprised of students from the NTUA, to participate in the European electromobility competition "ECO MARATHON".
- Aristotle University Racing Team Electric "ARISTURTLE", a student team from the Aristotle University of Thessaloniki, to construct a single-seater car.

SPONSORSHIP/DONATION	SPONSORSHIP/DONATION IN 2018 (€)
Environment/Education/Sports	160,830
Energy	182,517
Society	961,672
Culture	516,993
Total	1,822,012

PPC, in cooperation with Doctors of the World Greece, implemented an extensive programme of primary medical examinations to vulnerable social groups, significantly contributing in addressing society's health care needs. The programme, that was initiated in 2018 and developed under PPC's Corporal Social Responsibility framework, aimed at providing primary health care services through the deployment of a properly equipped and staffed mobile healthcare unit to areas of the country and to groups of people, who either have difficulty gaining access to free medical care or who belong to vulnerable social groups and require special treatment. In 2018, a total of 6,363 primary medical examinations were carried out by ten medical specialists to people of different age groups, in many areas of the country.

For the eighth consecutive year, PPC supported the free pre-symptomatic check-up scheme to raise awareness and provide information to women in the Western Macedonia region about the value of prevention and early diagnosis of breast cancer. This scheme was run in cooperation with the "Alma Zois" charity for women with breast cancer in the Prefecture of Thessaloniki. As part of the programme, that took place in Drama, Florina, Ptolemaida and Kozani, a total of 950 women were examined.

In addition, 1,000 tickets were given to school groups for the «Interactive Tour of the Acropolis of Athens (circa 5th century B.C.)», shown in the Virtual Reality Theatre of the Hellenic Cosmos Cultural Centre.

In November 2018, following a proposal from the Hellenic Heart-Lung Transplant Association "Skytalli", PPC together with the Hellenic Transplant Organisation of the Ministry of Health and the support of the Onassis Foundation, sent out 7,500,000 newsletters (designed by PPC), together with the Company's printed bills. The message "Organ Donation: a conversation that must be done" was spread in every corner of Greece.

PPC supports major sporting and cultural events in areas which are intimately associated with power generation activities and contributes to the development of local communities by leveraging the broader area's characteristics and attributes. At the same time, it strives to showcase the natural beauty and potential for growth those areas have, strengthening the local economy.

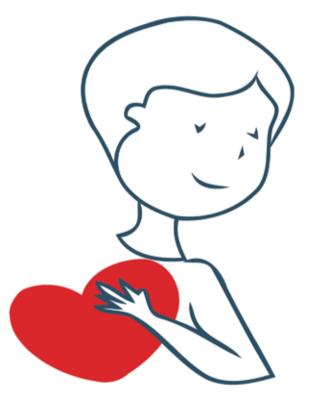
Within the year, PPC supported a great number of cultural, athletic and environmental initiatives, which include:

- Cultural event "Lassaneia" of the Municipality of Kozani
- Cultural and social initiatives of the Kozani Filoproodos club
- 3-day events organised by the organisation for cultural activities at Prespes Florina
- Chess competition organised by the Florina cultural club
- Ptolemaida Asia-Minor club's 3-day conference "Asia-Minor", regarding their cultural heritage.
- Choir event dedicated to the Maternal figure, under the auspices of the Ptolemaida cultural club " O SOTIRAS", where the music schools of West Macedonia participated in
- "PATOULIDEIA" cultural and athletic event, in cooperation with the Pan-Pontian Federation of Greece "Florina Efksinos club"
- Vlastis Cultural Company's ecological-cultural festival entitled "Earth's Celebration"
- Womens' Handball Greek cup final

As in previous years, in 2018 PPC did not provide any donations, sponsorships or financial aid to any political party or politician.

Σας ευχαρισζώ μέσα από ζην καρδιά μου... ζους πνεύμονες, ζο ήπαρ, ζο νεφρό, ζα μάζια μου...

μου χαρίσαζε και πάλι ζη ζωή!







## **Donations in kind**

In 2018 in addition to cash sponsorship, PPC offered donations in kind to support local communities in the areas where it operates. PPC responded positively to the requests of organisations which perform a social function.

In direct response to requests from residents in villages where PPC operates, the Company has provided extensive support via the Mines Business Unit and has been actively involved in addressing the impact of natural disasters in the prefecture of Kozani, Florina and Arcadia. It is also involved in snow clearance and firefighting teams in those regional units, offering machinery and personnel. In 2018, earthworks machinery was made available to municipalities which neighbour the lignite mines to carry out various works (to open, clean and maintain country roads, to form fire protection zones within forests, provision of water tanks, etc.).

The West Macedonia Lignite Center offered the entire harvest from its pilot orchards located on rehabilitated land on the Main Field Mine to ecclesiastical, educational and charitable bodies of the local community. In particular, 4,504Kg of fruit (4,424Kg of apples and 80Kg of pears) were offered to various foundations, local bodies and employees. These included the Analipsi Monastery in Kozani, the Good Samaritan Association in Ptolemaida, the Amyntaio Association for families with three children, the Eordea Large Families Association, the Soup Kitchen of Kozani etc. In addition, 6,000 kilos of barley were offered to the voluntary non-governmental organisation of mother and child protection "ARK OF THE WORLD" (Pogoniani of the municipality of loannina) and to local bodies (Eordaia Hunting Club "Achilles", Agios Panteleimonas-Agios Dimitrios communal park in Kozani).

Moreover, the Information Technology Department donated 39 desktop computers (computer system unit, monitor, mouse and keyboard) to local EFKA branches, the 1st Primary School of Aridaia, Evening Vocational High School of Chios, the Association for the Protection of Children and Individuals with Disabilities and the 2nd Junior High School of Ilioupoli.

At the 83rd Thessaloniki International Fair, PPC supported, for the 7th consecutive year, the operation of a clinic which it turned over to Doctors of the World to provide free primary care medical tests. A specially designed area hosted 3 clinics: internal medicine, ophthalmology and pediatrics. A total of around 2,000 people were examined.

### 8.3 PARTNERSHIP WITH ARCHAEOLOGICAL SERVICES

The provisions of the archaeology law (Law 3028/2002 on protection of antiquities and cultural heritage in general) and the circular from the General Secretariat of the Ministry of Culture and Tourism about "rescue digs on third party technical works" state that PPC is obliged to protect archaeological findings discovered during lignite mining.

The Company is obliged to finance the competent archaeological service as it carries out rescue digs. After the rescue digs are completed the Archaeological Service will then hand the area back to PPC and allow it to continue mining provided that mining work is carried out under the Archaeological Service's supervision.

In this context, rescue digs have been carried out, since 2013, at more than 20 archaeological sites at PPC lignite mines over the last decade, financed by PPC at a total cost of over  $\leqslant$  70 million. In 2018,  $\leqslant$  2.4 million were spent on rescue digs at the Ptolemaida mines and  $\leqslant$  0.3 million on rescue digs at the Amyntaio mines.

The "Preliminary Study on the Protection and Enhancement of the Fortified Arcadian City of the Classical Era" has been elaborated since 2015, for the area of the Kyparissia mine in Megalopoli. The Arcadian City was found near the specific mine and the study was approved by the Central Archaeological Council in the beginning of 2018.

# 8.4 EMPLOYEE VOLUNTEERING INITIATIVES

With the support of its employees, PPC organises volunteer initiatives having a social character every year. In 2018, continuing a tradition that now stretches many years, PPC employees organised voluntary blood donation rallies through their trade unions. More specifically, employee associations such as the Panhellenic Employee Association (PASYP), the Association of Technicians (ETE) and the SPARTACUS Association in Western Macedonia organised rallies and collected 1,163 units of blood in 2018.

In 2018, 5 social solidarity initiatives were implemented:

- Collection of necessary supplies for Attica Psychiatric Hospital's Special Programme that supports Substance Addicted Mothers-Women.
- Collection of necessary supplies for the kids that are hosted in "The Smile of the Child" daycare home, in the area of Mytika in Chalkida.
- Donation of school bags to deprived families in the Municipality of Megalopoli.

























- Support for the Municipality of Megalopoli conference on "The importance of early diagnosis and treatment of developmental disorders and learning difficulties to preschool and primary school children".
- Donation from PPC's employees working in Agrinio, for the purchase of items from the Christmas bazaar of the Pan Hellenic Parents Association of Children with Cancer "FLOGA".

In addition, in 2018, the Cultural and Nature Society of PPC's Employees, showcased their solidarity towards the victims/residents stricken by the wildfires in Attica, by encouraging its members to actively support the victims. Long-lasting food, cleaning products (household and clothing) and personal hygiene products were collected, while in the meantime the Society also made a financial contribution for the purchase of cleaning products and medicines. The products were handed over to the Megara Nursing Home for the wildfire victims of Kineta and to the Municipality of Rafina-Pikermi for the wildfire victims of Mati.

# 8.5 PPC HISTORICAL ARCHIVE AND INDUSTRIAL HERITAGE

PPC's Historical Archive collects, records, classifies and makes available to researchers the Company's important archival units. PPC has set up and continuously enriches the Oral Testimonies Archive, by promoting the Company's collective memory and revealing unknown aspects of its history. It documents and enhances PPC's industrial heritage (buildings, machinery, tools), contributing at the same time in the study of Greece's technological history. It cooperates with cultural and scientific institutions and bodies for the effective use of the archives and industrial heritage, while at the same time promotes joint cultural activities.

In 2018, PPC took various measures to publicise and leverage its Historical Archive by:

- Publishing the 2018 Calendar entitled "PPC: In the light of creation...", which is dedicated to the arts. The Calendar includes rare pictorial documents, many of which are presented for the first time, highlighting artists who were either employed by PPC or have collaborated with the Company at certain time-periods. The initiative aims to present the artistic side of PPC's public image and history.
- Participating in the event "A trip to Greece's Industry: 160 years made in Greece. Industry, innovation, novelty", which included material from PPC's Archive. The

event was held from the 18th of January to the 25th of March at the Industrial Gas Museum in Athens.

- Participating in the 11th Regional Conference focusing on Productive Reconstruction entitled "Central Macedonia: Development hub - cooperation portal" which took place in March in Thessaloniki. More specifically, the discussion entitled "Public archives, historical memory and social consciousness" featured the work that was carried out to save and organise the Archive of Thessaloniki's Energy Companies (1908-1957).
- Following PPC Management's decision to set October the 13th (anniversary of the Battle of the Power Station) as the Company's official celebratory day, PPC's Historical Archive presented, for the second consecutive year, the historical exhibition "Saving the Power Station...A battle at the heart of Liberation", which was carried out under the auspices of the Presidency of the Hellenic Republic at the Agios Georgios TPP, as part of the events "Liberated Athens: 12th of October 1944". The event opened its doors to the public on 14th of October 2018 and lasted until the 28th of February 2019. The Ministry of Education, having recognized the importance of the thorough documentation of this important historical event through the presentation of rare archival and photographic records, decided to include PPC's event in the educational school trips list. The event welcomed more than 4,000 visitors, including elementary and high school students, primary and secondary education teachers, researchers and visitors from the general public.
- Participating in the Hellenic Radio's First Programme and Voice of Greece documentary on the Battle of the Power Station on 27th of October 2018. The documentary was broadcasted live from Agios Georgios TPP at Keratsini.
- Organising a scientific conference at the Piraeus Public Library on Thursday 15th of November 2018, as part of the events of "Liberated Athens: 12th of October 1944".
   Respected historians addressed the Battle in the wider historical context of Greece's Liberation.
- Presenting a historical flashback on female employees' contribution to PPC, as part of the event for the International Women's Day (March 8th 2018), which was organised by PPC for the first time.
- Participating and providing financial support, as gold sponsor, to the largest research project which takes place in Greece, in view of the completion of 200 years from the Revolution of 1821. The project "The Greek Revolution of 1821: Digital Archive",

Doctors of the World - PPC, TIF 2018

Event for the International Women's Day

# PPC'S CENTRAL LIBRARY

BRANCHE NATIONWID



воокѕ 10,000

JOURNALS

85

NEWSPAPERS

RARE STUDIES
DATING BACK TO THE VERY
FOUNDATION OF PPC



run by the Research Centre for the Humanities, is expected to be completed by the beginning of 2021, presenting to the general public an Online Repository, that will include material from Greece's largest scientific and archival bodies, libraries and museums. Some of the largest scientific and archival bodies of the country participate in the project (General State Archives, National Library, the National Hellenic Research Foundation, Benaki Museum, etc.).

- Supporting scientific research by making historical and archival material available to researchers and Units of the Company.
- Cooperating with the Department of History and Philosophy of Science of the National and Kapodistrian University of Athens, for the initiation of student internships in sections of the Historical Archive.

As part of the effort to save, manage and promote the Company's industrial heritage (building and mechanical equipment), PPC's Historical Archive carried out, among others, the following actions:

- Transported the first turbine (1954) from the Louros HPP to the New Faliro TPP, in cooperation with PPC Renewables S.A., to include it in the exhibition.
- Cooperated with the Hellenic Army General Staff/Army History Directorate, to record the shelters at the historical Agios Georgios and New Faliro TPPs.
- Represented PPC at the BoD of the Greek Branch of the International Committee for the Conservation of Industrial Heritage (TICCIH).

## **8.6 OTHER INITIATIVES**

In addition to the above, PPC has also proceeded to other initiatives as a contribution to society.

# **PPC's Central Library**

PPC's Central Library has 81 branches nationwide, and is a major resource centre containing around 10,000 books, 85 journals, newspapers and rare studies dating back to the very foundation of PPC. The Library lends material to PPC personnel and is open to the rest of the public (researchers, students, academics, etc.) in order to study the material in the reading room of the library and photocopy any information needed.

The recently renovated, suitably designed central library premises can also be used for committee meetings, presentations and training courses/seminars.

Thanks to its participation in the Greek National Documentation Centre's Network of Libraries, the PPC's Central Library enables network members to order photocopies of articles from journals that the Library holds in its collection online and simultaneously request photocopies of articles from the collections of other libraries that are members of the aforementioned network.

# **Employees choir**

The choir that was founded in 1978 and has been in continuous operation since then, actively supported by the Company, comprises personnel, retirees, children of employees and professionals outside PPC.

From time to time it has collaborated with leading Greek composers, famous performers and singers, to name just a few Mikis Theodorakis, Stavros Xarchakos, Vangelis Papathanasiou and Giannis Markopoulos. It has also made appearances at some of Greece's most important theatres such as the Odeon of Herodes Atticus Theatre, the Athens and Thessaloniki Concert Halls, the Panathenaic Stadium, the Ancient Stadium of Delphi and the Greek National Opera. Its rich repertoire consists of works from various eras.

During 2018 the choir was involved in the following events:

- The Electricity Schools Alumni Group's new year's event that was held at "Theatro Politon" in Peristeri, on 28th of January 2018.
- Concert, in cooperation with the Athens State Orchestra and Maria Faradouri, that honoured the great Greek composer Mikis Theodorakis. The event took place at the Athens Concert Hall, on 23rd of February 2018.
- "Magical Night", organised by the Association of the Friends of the "Agioi Anargyroi" Oncology Hospital to raise funds for the Hospital's Centre for the Prevention of Breast Cancer. The event took place at the Athens Concert Hall, on 12th of March 2018.
- Concert, organised by the Hellenic Broadcasting Corporation (HBC) and the Stavros Niarchos Foundation Cultural Center, where Stefanos Korkolis accompanied by HBC's Modern Music Orchestra presented a musical work with poems by Konstantinos Cavafis, on 23rd of April 2018.
- Event, organised by the "ELPIDA Association of Friends of Children with Cancer" at the



Employees Choir PPC - HEDNO

# PPC PRIVATE **VOCATIONAL TRAINING ENERGY** INSTITUTE

2,860 MANHOURS OF TRANING WERE COMPLETED FOR THE SPECIALISATION **«AUTOMATION TECHNICIAN»** 

2.640 MANHOURS OF TRAINING WERE COMPLETED FOR THE SPECIALISATION **«INTERNAL ELECTRICAL** INSTALLATIONS **TECHNICIAN»** 

Stavros Niarchos Foundation Cultural Centre on 29th of May 2018, attended by the President of the Hellenic Republic.

- The Amarynthos Choir Festival, where employees and pensioners from Amarynthos and Aliveri attended the event, on 23rd of June 2018.
- Concert, dedicated to the great Greek composer Mikis Theodorakis, that took place at the Rhodes Palace of the Grand Master of the Knights, on 5th of October 2018.
- The 2018 Athens Marathon closing ceremony, performing Giorgos Theofanous' "Marathon's Hymn" at Kallimarmaro Stadium, on 11th of November 2018.
- The celebration of the International Day of People with Disabilities organised by the Association for the Protection of Children and Individuals with Disabilities at their Day Care Centre in Cholargos, on 3rd of December 2018.
- The cultural event "Choirs Meeting" that took place at the Kozani Pontiac Club and was organised in cooperation with the "Spartacus" Trade Union, on 8th of December 2018. The choirs of the Ptolemaida and Siatista Music School also participated in the event.
- The Christmas event, organised for the patients and the staff of the "Agioi Anargyroi" Oncology Hospital, on 19th of December 2018.

# **PPC Private Vocational Training Energy Institute**

The PPC Private Vocational Training Energy Institute initially started from Kardia at the West Macedonia Energy Centre, aiming to provide high quality education, thus offering added value to its students and effectively contributing towards their professional development through the provision of specialised knowledge and the enhancement of their skills.

Taking into consideration PPC's experience, workforce's knowhow and recent trends in adult education, the PPC Private Vocational Training Energy Institute aspires to become one of the leading educational institutes, that will significantly contribute to the development of the region.

In 2018, 2,860 manhours of training were completed for the specialisation "Automation Technician" and 2,640 manhours of training for the specialisation "Internal Electrical Installations Technician".

It should be mentioned that free transportation from Kozani and Ptolemaida to the Institute (and vice-versa) is offered.

# Internships

PPC allows students of universities and technical educational institutes, as well as students of the Hellenic Manpower Employment Agency programmes, to complete their internships at the Company's Units. In 2018, PPC employed 67 university students as part of the life-long learning programme financed by the National Strategic Reference Framework (NSRF), 124 students from technological educational institutes under a programme financed by the Hellenic Manpower Employment Agency, and 77 students from the Hellenic Manpower Employment Agency's Vocational Apprenticeship Schools, Moreover, 31 graduates from Vocational Senior High Schools, following a relevant request from the Ministry of Education, started a 9-month internship in various Company's Units.





UNIVERSITY STUDENTS

124

TEI STUDENTS

STUDENTS FROM HELLENIC MANPOWER EMPLOYMENT AGENCY

GRADUATES FROM VOCATIONAL SENIOR HIGH SCHOOLS



# ABBREVIATIONS

- **APP** Autonomous Power Plant
- **BoD** Board of Directors
- **CSR** Corporate Social Responsibility
- **ESP** Emergency Situation Plan
- **ETRM** Energy Trading and Risk Management
- **EU ETS** EU Emissions Trading System
- **EURELECTRIC** European Union of the Electricity Industry
  - **GDPR** General Data Protection Regulation
  - GHG Greenhouse Gas Emissions
  - **GRI** Global Reporting Initiative
  - **HEDNO** Hellenic Electricity Distribution Network Operator S. A.
    - **HPP** Hydroelectric Power Plant
  - **IPTO** Independent Power Transmission Operator S.A.
  - **LPP** Local Power Plant
  - RAE Regulatory Authority for Energy
    RES Renewable Energy Sources
  - **TPP** Thermal Power Plant
  - TRSC Testing, Research and Standards CentreWORA Written Occupational Risk Assessment

# ALLIGNMENT WITH PRINCIPLES AND STANDARDS

# 10.1 GRI GUIDELINES

The following table links the contents of the 2018 PPC Corporate Social Responsibility and Sustainability Report with the GRI Standards and with the supplement on the energy sector (GRI- EUSS).

# **GRI Index**

GRI STANDARDS	DISCLOSURE	SECTION
GRI 101 Foundation 2	016	
General Disclosures	2	
	Organisational Profile	
	102-1 Name of the organisation	2
	102-2 Activities, brands, products, and services	3.1, 7.1
GRI 102 General	102-3 Location of headquarters	3.1
Disclosures 2016	102-4 Location of operations	3.1
	102-5 Ownership and legal form	3.1, 3.2
	102-6 Markets served	3.1, 7.1
	102-7 Scale of organisation	3.13, 4.8, 5.1

GRI STANDARDS	DISCLOSURE	SECTION	CON	/MENTS/OI	BSERVATIONS	
General Disclosures						
	Organisational Profile					
	102-8 Information on employees and other workers	5.1	The total nur subcontracto	nber of em ors engaged available	ployees of cond d by PPC in 201 to PPC.	tractors/ 18 is not
	102-9 Supply chain	7.5				
	102-10 Significant changes to the organisation and its supply chain	3.1, 3.2, 3.5, 3.6				
	102-11 Precautionary Principle or approach	3.9, 3.10, 5.5, 6.3, 6.4, 6.5	Susta	inable Deve	elopment Polic	cy
	102-12 External initiatives	2, 4.5, 4.6, 10				
	102-13 Membership of associations	4.6				
	EU 1 Installed capacity, broken down by primary energy source and by regulatory regime	3.1				
GRI 102 General Disclosures 2016	EU 2 Net energy output broken down by primary energy source and by regulatory regime	3.1				
	EU 3 Number of residential, industrial, institutional and commercial customer accounts	3.1				
			INTERCONNECTED NETWORK (Length in km)			n km)
				Overhead	Underground	Submarine
			L. Voltage (0,4 kV)	95,767	14,102	2.4
			M. Voltage (15–20 kV)	86,853	10,070	507
			H. Voltage (150 kV)	0	217.9	0
	EU 4 Length of above and underground			182,620	24,389.9	509.4
	transmission and distribution lines	3.1	NON-INTERC	ONNECTED N	NETWORK (Lengtl	h in km)
	by regulatory regime		NOIN-IIVIERC	Overhead	Underground	Submarine
			L. Voltage (0,4 kV)	16,127	943	0
			M. Voltage (15–20 kV)	13,411	961	494
			H. Voltage (150 kV)	765.8	5.2	0
				30,303.8	1,909.2	494
	EU 5 Allocation of emissions allowances, broken down by carbon trading framework	6.3				

	2.002000	0_0		
General Disclosures				
	Strategy			
	102-14 Statement from senior-decision maker	1		
	Ethics and integrity			
	102-16 Values, principles, standards, and norms of behaviour	3.4, 4.1	Sustainable Development Policy	
	Governance			
	102-18 Governance structure	3.4-3.6, 4.2		
	Stakeholder engagement			
	102-40 List of stakeholder groups	4.4		
	102-41 Percentage of employees covered by collective bargaining agreements	5.1	The relevant data on contractor employees are not available to PPC.	
GRI 102 General	102-42 Identifying and selecting stakeholders	4.4		
Disclosures 2016	102-43 Approach to stakeholder engagement	4.4		
	102-44 Key topics and concerns raised by stakeholders	4.4		
	Reporting practice			
	102-45 Entities included in the consolidated financial statements	3.1, 3.3, 3.5		
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	102-51 Date of most recent report	2		

SECTION

COMMENTS/OBSERVATIONS

DISCLOSURE

**GRI STANDARDS** 

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GRI STANDARDS	DISCLOSURE	SECTION	COMMENTS/OBSERVATIONS
General Disclosures			
	Reporting practice		
	102-52 Reporting cycle	2	
GRI 102 General	102-53 Contact point	2	
Disclosures 2016	102-54 Claims of reporting in accordance with the GRI Standards	2	
	102-55 GRI content index	10.1	
	102-56 External assurance policy	2, 11	
MATERIAL TOPICS			
Company's financial pos	sition/Performance		
	103-1 Explanation of the material topic and its Boundary		
GRI 103 Management Approach 2016	103-2 The management approach and its components	3.13, 4.1, 4.3, 4.8	Sustainable Development Policy
	103-3 Evaluation of the management approach		
	201-1 Direct economic value generated and distributed	3.13	
GRI 201 Economic	201-2 Financial implications and other risks and opportunities due to climate change	3.9, 4.1, 4.8, 6.4	Annual Report 2018 pages 39-40, 49 and 128.
Performance 2016	201-3 Coverage of the organisation's defined benefit plan obligations		Annual Report 2018 pages 178, 181, 192 and 236.
	201-4 Financial assistance received from government	3.2, 3.13	
Energy efficiency/new t	echnologies		
	103-1 Explanation of the material topic and its Boundary		
GRI 103 Management Approach 2016	103-2 The management approach and its components	4.1, 4.3, 6.4	
	103-3 Evaluation of the management approach		

GRI STANDARDS	DISCLOSURE	SECTION	COMMENTS/OBSERVATIONS
MATERIAL TOPICS			
Energy efficiency/new to	echnologies		
GRI-EUSS Electric	EU 11 Average generation efficiency of thermal plants by energy source and by regulatory regime	3.1	
disclosures	EU 12 Transmission and distribution losses as a percentage of total energy		This indicator is not relevant to PPC's operations. These data are the responsibility of IPTO and HEDNO.
Climate change and gre	enhouse gas/particle emissions		
	103-1 Explanation of the material topic and its Boundary		
GRI 103 Management Approach 2016	103-2 The management approach and its components	4.3, 6.1, 6.3	Sustainable Development Policy
	103-3 Evaluation of the management approach		
	305-1 Direct (Scope 1) GHG emissions	6.3	
	305-2 Energy indirect (Scope 2) GHG emissions	6.3	
	305-3 Other indirect (Scope 3) GHG emissions	6.3	
GRI 305 Emissions 2016	305-4 GHG emissions intensity	6.3	
	305-5 Reduction of GHG emissions	6.3, 6.4	
	305-6 Emissions of ozone-depleting substances (ODS)	6.3	
	305-7 Nitrogen oxides (NO $_{\rm x}$ ), sulfur oxides (SO $_{\rm x}$ ), and other significant air emissions	6.3	
Staffing the Company			
	103-1 Explanation of the material topic and its Boundary		
GRI 103 Management Approach 2016	103-2 The management approach and its components	4.3, 5.1	Sustainable Development Policy
	103-3 Evaluation of the management approach		
GRI 401 Employment	401-1 New employee hires and employee turnover	5.1	
2016	401-3 Parental leave	5.1	

GRI STANDARDS	DISCLOSURE	SECTION	COMMENTS/OBSERVATIONS
MATERIAL TOPICS			
Staffing the Company		-	
GRI-EUSS Electric	EU 14 Programmes and processes to ensure the availability of a skilled workforce	5.2, 8.6	
disclosures	EU 15 Employees eligible to retire in the next 5 and 10 years	5.1	
New markets and inves	tments		
	103-1 Explanation of the material topic and its Boundary		
GRI 103 Management Approach 2016	103-2 The management approach and its components	3.12, 4.3	
	103-3 Evaluation of the management approach		
Regulatory issues			
	103-1 Explanation of the material topic and its Boundary		
GRI 103 Management Approach 2016	103-2 The management approach and its components	3.11, 4.3	
	103-3 Evaluation of the management approach		
Risk/crisis management			
	103-1 Explanation of the material topic and its Boundary		
GRI 103 Management Approach 2016	103-2 The management approach and its components	3.9, 4.3	
	103-3 Evaluation of the management approach		
New energy market con	ditions		
	103-1 Explanation of the material topic and its Boundary		
GRI 103 Management Approach 2016	103-2 The management approach and its components	3.11, 4.3	
	103-3 Evaluation of the management approach		

RI STANDARDS DISCLOSURE		SECTION	COMMENTS/OBSERVATIONS
MATERIAL TOPICS			
Customer service, infor	mation and satisfaction		
GRI 103 Management Approach 2016	<ul><li>103-1 Explanation of the material topic and its Boundary</li><li>103-2 The management approach and its components</li><li>103-3 Evaluation of the management approach</li></ul>	7.2	
Promotion of renewable	e energy sources		
GRI 103 Management Approach 2016	<ul><li>103-1 Explanation of the material topic and its Boundary</li><li>103-2 The management approach and its components</li><li>103-3 Evaluation of the management approach</li></ul>	3.12, 4.3, 6.4	

# 10.2 THE AA1000 ACCOUNTABILITY STANDARD

The Company follows the principles in the AA1000AP AccountAbility Standard (2018) in identifying, prioritising and responding to sustainability issues. These principles are:

- Inclusivity: Stakeholders are involved in developing a responsible, strategic approach to sustainability and corporate responsibility.
- Materiality: The relative materiality of each topic is determined to identify how it is to be managed by the Company and to determine the content of the PPC's Corporate Social Responsibility and Sustainability Reports.
- Responsiveness: Material topics and the challenges they present are managed and responded to with the participation of all the Company's organisational units.
- Impact: The impacts caused by the Company's actions should be monitored and measured.

The table below shows how the content of the PPC's 2018 Corporate Social Responsibility and Sustainability Report matches the principles of the AA1000 standard.

INCLUSIVITY	SECTION OF THE REPORT
Materiality	4.3-4.4
Responsiveness	4.3-4.4
Impact	4-8
Επίδραση	4.3, 4.5, 4.8

# 10.3 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	RELEVANT SECTION OF REPORT
		1. Strategic analysis and action	4.1 Management Approach
×>•	STRATEGY	2. Materiality	4.3 Materiality Analysis
• ×	STRATEGY	3. Objectives	4.9 Commitments - Goals
		4. Management of value chain	5.5 Health and Safety 7.5 Responsible Procurement
		5. Responsibility	3.6 Governance Structure 4.2 Governance for Sustainable Development Issues
		6. Rules and procedures	3.4 Corporate Governance Framework 4.1 Management Approach
	PROCESS MANAGEMENT	7. Monitoring	4.8 Key Corporate Responsibility Performance Data 11 External Assurance Statement
	PROCESS MANAGEMENT	Incentive and reward systems for sustainable development	5.3 Employee Evaluation and Benefits
		9. Stakeholder engagement	4.4 Stakeholders
		10. Product responsibility and innovation	<ul><li>6.4 Actions to Reduce Greenhouse Gas Emissions</li><li>7.1 Products and Services</li><li>7.3 Responsible and Safe Energy Use</li></ul>
20		11. Use of natural resources	6.2 Consumption of Raw Materials and Fuels 6.5 Water Management
	ENVIRONMENT	12. Resources management	6.6 Waste Management - Use of By- Products
		13. Climate-relevant emissions	6.3 Greenhouse Gas and Other Gas Emissions 6.4 Actions to Reduce Greenhouse Gas Emissions

PILLAR	CRITERION	RELEVANT SECTION OF REPORT
SOCIETY	14. Employment rights	5.1 Human Resources Data 5.4 Equal Opportunities and Respect for Human Rights 7.5 Responsible Procurement
	15. Equal opportunities	5.1 Human Resources Data 5.3 Employee evaluation and benefits 5.4 Equal Opportunities and Respect for Human Rights 5.5 Health and Safety
	16. Qualifications	<ul><li>5.1 Human Resources Data</li><li>5.2 Training and Development</li><li>5.3 Employee Evaluation and Benefits</li><li>5.4 Equal Opportunities and Respect for Human Rights</li><li>5.5 Health and Safety</li></ul>
	17. Human rights in the supply chain	5.5 Health and Safety 7.5 Responsible Procurement
	18. Corporate citizenship	<ul><li>8.1 Local Community Development Programmes</li><li>8.2 Sponsorship Programmes</li><li>8.3. Partnership with Archaeological Services</li><li>8.6 Other Initiatives</li></ul>
	19. Initiatives and political influence	<ul><li>3.11 Energy Market Operations and Public Policy</li><li>4.5 Contribution to the UN Sustainable Development Goals</li><li>4.6 Membership of Associations and Organisations</li></ul>
	20. Corruption prevention and alleviation	3.8 Audits and Regulatory Compliance 5.7 Regulatory and Legislative Compliance

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# INDEPENDENT ASSURANCE REPORT

# 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 4.8 titled "Key CSR Performance Data" of the Greek version of the sustainability report titled "Corporate Social Responsibility and Sustainability Report 2018" (referred to as "the Report") of the Company for the reporting period 1 January 2018 - 31 December 2018.

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) 3000¹. 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 CSR Performance Data" of the Report, referring to the period 1 January 2018 - 31 December 2018, is free from material misstatement. KPMG applies ISQC 1² 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

- 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.
- 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

requirements. We have complied with the independence and other ethical requirements of the International Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants (IESBA), which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behavior.

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 CSR 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 CSR Performance Data" of the Report.
- Visits to the central offices of the Company in Athens, where we reviewed on a sample basis, the procedures of developing and managing the content of the section "Key CSR 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 CSR 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 CSR Performance Data" of the Report.
- Reading the information presented in the section "Key CSR 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 CSR 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 "provision for personnel's severance payment", the "dividend payments", the "earnings (losses) before taxes", the "longterm borrowings", the "short-term borrowings", the "supply market share (average annual)", and the "emission allowances (CO<sub>3</sub>)", KPMG's work was limited to the reliability check of the transfer of these data from the published / approved "Financial report 2018" or the "Annual report 2018" of the Company, to the section "Key CSR Performance Data" of the Report. To obtain a thorough understanding of the Company's financial results and financial position, the 2018 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 CSR 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 4.8 titled "Key CSR Performance Data" of the Report of Public Power Corporation S.A. for the period 1 January 2018 - 31 December 2018 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** 

Athens, 12 December 2019

# CONTRIBUTORS

The Corporate Social Responsibility and Sustainability Report 2018 was elaborated by the Corporate Social Responsibility Section of PPC S.A., with the assistance of the CSR team of the company.

The majority of the photos used are held in the PPC archive and are taken by the photographer of the company, Mr. Dimitris Rizos.

Support in the elaboration of the report





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