The Public Power Corporation (PPC) Privatization

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SCHOOL OF SCIENCE & TECHNOLOGY
A thesis submitted for the degree of
Master of Science (MSc) in Energy Systems

DECEMBER 2017
THESSALONIKI – GREECE
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ACKNOWLEDGMENTS

I would like to express my special thanks to my family which supported me and my Prof. Dr. Theodoros Panagos who gave me the motivation to get involved in energy law issues.
Abstract

The Public Power Corporation is a state owned company that operates since 1950 in the Greek electricity market. It played undoubtedly a significant role to the growth of Greece after the period of wars in 50’s decade and it is still the dominant player in electricity generation and supply sector. In late 90’s commenced the period of PPC’s reforming, following necessarily the instructions of European Union as regards to market liberalization. The first step was the conversion to a limited company, operating under the rules of private market. In early 2000’s followed three public offerings which resulted to the reduction of Greek state’s share in the company.

However, after the public offerings, Greek state has still the control of PPC by possessing more than 50% of the company’s shares. The financial problems are now an obstacle for the growth and expansion of the company and several types of reforming have been proposed the last ten years. The case of “small PPC”, the so called NOME actions, the sale of 40% of hydroelectric and lignite power plants and finally the sale of 17% of the capital share are issues that analyzed in this dissertation. Similar privatization ventures have been already realized in other Europe countries and two of them are presented. To writer’s opinion, the management concession of part of lignite and hydroelectric power plants could also be an alternative which will benefit both PPC and Greek state. In any case, the participation of the private sector in PPC’s operation seems essential in order for the company not only to meet its financial obligations but also to acquire a dominant position in the Balkan region.

Georgios Zachariadis
16/12/2017
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1 Introduction

The term “privatization” of a public company has a binary meaning. It could be deemed as the conversion of the company into one which operates under the rules and regulations of private sector (e.g. Societe Anonyme), even if the state still controls the company through the possession of the majority shares. The second argument is that privatization occurs only when private entities and investors hold more than 50% of the company’s capital share, namely the state has lost its control. In the decade of 1990’s the privatization of Greek public utility companies issue started to emerge timidly as a necessary action in order for them to be more efficient, to improve customer’s satisfaction and numerous others reasons. The Greek public utility company that most obsessed and still obsesses with this issue the society and governments is the Public Power Company (PPC).

PPC is the Greek state owned company which produces and supplies with electricity the Greek territory. It was founded in 1950 and it was a monopoly on electricity sector of Greece. The Public Power Corporation (PPC) exists in the form of Societe Anonyme from the year of 2001\(^1\). That year private investors bought stocks of PPC SA but the Greek State still possesses the highest share of the company and consequently has the control of it. In the year of 2007, after the liberalization of electricity market, new con-

\(^1\) Presidential Decree 333/2000
panies entered the sectors of electricity generation and supply. Additionally, at the year of 2011, the unbundling of transmission and distribution activities lead to the creation of ADMIE and DEDDIE respectively, two new 100% affiliated companies of PPC. At the time being, the sale of shares that state owns as well as the sale of power plants is an issue that Greek government has to deal with. Creditors, from one side, apply pressure to Greek governments to move on to the company’s sale; however, from the other side part of Greek parliament and society but also the employees of PPC bring obstacles to this activity for their own reasons each one.

The privatization of Greek public companies, with either the one or the other aforementioned meanings, was always an issue of conflict in Greece. There is always a part of Greek society that is against these kinds of actions by political conviction. Furthermore, parts of the parliament, usually the political parties that are not governing, are against to such actions in order for them to carry the favor of voters. Finally, the employees of these companies, who are public servants, are also against the entrance of private investors because they are afraid of facing a pay cut or losing of privileges that enjoyed or even losing their jobs. Therefore, in front of all that pressure and objections, the Greek governments were reluctant to proceed to these kinds of reforms due to the political cost that they will have faced each time.

There are several cases of state owned companies that were sold in private investors in order for the companies to be saved from the vast financial problems they were facing and also for the Greek state to obtain a substantial amount of money. The first years of 1990’s Bank of Athens, Piraeus Bank, Hellenic Sugar were some of the companies that were privatized. Some of the most significant state owned companies that were privatized in 2000’s and more recently were OTE, OSE, 14 regional airports etc. Some of them were state owned and some of them belonged to the so called “broader public sector”. However, the procedure in each case followed a very slow pace due to the reasons mentioned to the previous paragraph. The privatization issue in Greece was revised during the years of debt crisis. In 2011, the “Hellenic Republic Asset Development Fund” was founded to manage the Greek land, infrastructure and corporates and to proceed to privatizations to Greek State’s advantage.

This dissertation aims to present the history, the background and the next steps of PPC privatization which is many years on the table but still pending. This procedure is obviously connected with the legal framework of electricity sector which has been faced
vast changes in the last twenty years with the liberalization of electricity market and the unbundling of activities. Therefore, there will be an effort for privatization and liberalization or, with other words, financial and legal aspects to be connected. By examining similar cases of other countries electricity companies, for example Italy and Portugal, it could be derived a complementary or reformative of the existing privatization plan.

In the second chapter, it will be presented the history of PPC from its establishment in 1950 until today, underlying all the critical spots and paying attention to the change of the corporate form, which was considered as privatization although PPC is still under the State’s control. The liberalization of the electricity market under the provisions of the European legislation lead to the unbundling of generation, transmission, distribution and supply activity and was a milestone in PPC’s evolution. A mention to the assets of the company, including the power and hydroelectric plants, will be made, as some of them play a very significant role in the current privatization plan. The legal framework and its changes throughout the years as well as the financial status of the company are of great interest.

The purpose of the third chapter is to provide a dense analysis of the privatization term. As mentioned above, its controversial meaning allows the usage of the word in several different cases. The last three decades, the destatalization of companies, a word with a similar meaning, is a very common phenomenon; therefore, a dense explanatory background has been developed. The aim of this paragraph is to decouple the various forms of this term by analyzing, referring to their benefits and examine to which kind of company or sector suits best each one form. The conversion of a public company into one which operates under the rules of private sector, the entrance of private investors into the capital share or the concession of the management to a private company are included to the privatization term as this is broadly used in Greece. The method and the results of privatization cases, mainly from Europe, will be examined, trying to find similarities to Greek situation and also trying to derive possible alternatives that best suit to PPC case.

In the fourth chapter, the history of PPC privatization is presented from 90’s when initially this issue addressed among several other privatization ventures in Greece. It is remarkable that nowadays, after more than twenty years and several changes in the strategic plan, it is still a pending issue and also a matter of dispute. The reasons of the de-
lay, which are numerous and profound, will be analyzed and also the entities responsible for privatizations in Greece are presented.

In fifth chapter, the recent and current privatization plans will be thoroughly introduced referring to NOME auctions, the case of “Small PPC”, the H.R.A.D.F. share and the sale of 40% of power plants. The turn towards the private sector targets to enhance the financial status of the company, its efficiency and customer satisfaction. During last years the change of PPC is instructed from creditors of Greek state and it is included in the prerequisites for further support.
2 Public Power Corporation (PPC) Overview

Electricity first appeared in Greece in 1889 when the first small power plant was constructed in Athens and the same years also Thessaloniki was electrified. After some years, several foreign electricity corporations invested in electricity generation activity in Greece by constructing power units across the Greek territory and supplying regional big cities. In some remote regions this work was undertaken by the local municipal authorities. These units produced electricity using imported coal or oil as raw materials. Until the year of 1929, approximately 250 Greek cities with population more than 5,000 have been already electrified.²

2.1 History of PPC

However, the first half of nineteenth century electricity price in Greece was significant high in comparison with other European countries due to the non-utilization of domestic raw materials, namely the mineral resources. It was too costly for individual producers to invest on infrastructure in order to exploit domestic resources. Another reason for the high prices was the non-integrated system and the lack of central management which will have stabilized the prices using fixed costing throughout the country. Besides, the construction of a power unit was unprofitable for remote regions with small population; therefore, there was a significant part of Greece that did not enjoy access to electricity. The Second World War and the following civil war had hindered the development of electricity sector and had destroyed the Greek economy. It was of high priori-

² [https://www.dei.gr/el/i-dei/i-etairia/omilos-dei-ae/dei-ae](https://www.dei.gr/el/i-dei/i-etairia/omilos-dei-ae/dei-ae)
ty the establishment of a new entity which could secure the electricity supply of the whole country, support the growing industrial sector and boost the national economy⁴.

The aforementioned were the main reasons for the establishment of PPC in 1950 under the provisions of the Greek legislation⁴. That year existed approximately 400 electricity producers throughout Greek territory. The largest producer was the “Electricity Corporate of Athens-Piraeus”. It had a power capacity of 135MW and covered the 85% of Attica’s prefecture electricity needs.

The scope of PPC was to exploit intensively domestic mineral resources, reducing and stabilizing the price and secure access to electricity for every citizen of the country. Large lignite ledges had already been detected in specific regions and PPC commenced the mining of lignite and the construction of large power plants which used it as fuel. In addition, hydroelectric plants were constructed in order to exploit the power of water through the hydrostatic dams that were also constructed in the big rivers of mainland⁵.

2.1.1 The early years

Due to lack of expertise, the first years PPC was organized under the instructions of two American corporates. “Ebashko” undertook the organization of PPC and “Pierce Management” undertook the exploitation of lignite ledges. The construction of the first thermoelectric power plant using lignite fuel was commenced in Aliveri and at the same period started the construction of three hydroelectric power plants. Concurrently, the construction of the electricity transmission system throughout the Greek territory commenced⁶.

The next period PPC progressively bought out all the private and municipal electricity companies that already existed in order for a central electricity entity to be consoli-

---

⁴ Law 1468/1950
⁵ https://www.dei.gr/el/i-dei/i-etairia/omilos-dei-ae/dei-ae
dated. This action started in 1956 under the provisions of the relevant Greek legislation\textsuperscript{7}. The “Electricity Corporate of Athens-Piraeus” which was the largest producer, finally was bought out from PPC in 1960. Furthermore, PPC integrated the existing transmission and distribution system. The electricity production deemed as a public utility and the supply became a monopolistic activity. PPC had the exclusively right to produce, transmit, distribute and supply with electricity the Greek territory\textsuperscript{8}.

In the following years, PPC achieved its goals. The electricity network covered the Greek mainland supplying with electricity the whole country. In 1950 only 32% of the Greek population had access to electricity. In 1980 more than 99% of the population enjoyed the benefits of electricity. The electrification of Greece was rapidly moving forward\textsuperscript{9}.

\subsection*{2.1.2 Developing of PPC and alternative fuels exploitation}

For the power supply of mainland, power plants using lignite was utilized. However, this was not feasible for islands because no lignite ledges existed there. For that reason, power plants that used diesel as fuel were constructed to cover the needs of islands. Nowadays, the Ionian Sea islands have been already interconnected to the mainland network and the next step is the connection of Cyclades islands and Crete\textsuperscript{9}.

Taking into account that the exploitation of lignite is not an environmental friendly procedure, the last years, alternative fuels and processes are chosen for the electricity production. Natural gas is an environmental friendly fuel and the last twenty years has entered to the electricity production procedure not only form PPC but also from other Greek producers. Power plants using natural gas as fuel has been constructed in Aliveri, Laurio, Komotini and Keratsini. However, taking into account that it is an imported fuel, its price and adequacy is depending on external factors.

\begin{itemize}
\item \textsuperscript{7} 3523/2965 Presidential decree
\item \textsuperscript{8} Τ. Λιτρας, Η απελευθέρωση της αγοράς ηλεκτρικής ενέργειας και η σύμβαση προμήθειας, 2017, p. 32
\item \textsuperscript{9} https://www.dei.gr/el/i-dei/kentro-tuporto/enimerwtika-entupa/etairika-entupa/energeia-gia-tin-ellada-fwtografiko-leukwma-gia-ta-60-xronia-tis-dei
\end{itemize}
Furthermore, PPC has turned towards renewable sources of energy for the electricity production. The exploitation of solar and wind energy is achieved by the construction of photovoltaic and wind parks. Greece has high potential on solar and wind energy due to its geographical location and several photovoltaic and wind parks are operating or are now constructed, mainly in islands under the ownership of an affiliated of PPC company named “PPC Renewables”. In 1983 the first solar park was constructed in the island of Kythnos. The exploitation of geothermal energy is also on the table for PPC Renewables\(^\text{10}\).

As regards to legal form of the company, in 2001 PPC transformed from a state owned company to a limited one (Societe Anonyme) and this was the first step of the privatization. It was still controlled from the Greek state but from then it was operating under the rules and legislation of private sector. In 09/01/2001 the first board of directors was composed. In the same year PPC entered the stock exchange of Athens and London and private investors could, by that time, acquire shares of the company\(^\text{10}\).

### 2.2 Legal framework and liberalization of electricity market in Europe

Until the decade of 1990, the electricity sector, in most European countries, was operating in a similar monopolistic model, namely, it was dominated by state owned corporates. In middle 90’s European Union commenced the implementation of electricity market liberalization. The objectives were the promotion of competition, the distinction between competitive and non-competitive activities, the third party access (operators of transmission and distribution system should allow third parties to enter the system) and the right of consumers to choose their own supplier\(^\text{11}\).


\(^\text{11}\) C. Paraskevopoulos-Kolias, Η δομή της ελληνικής αγοράς ηλεκτρικής ενέργειας, 2017, p. 1
The aforementioned objectives were achieved progressively after the issuance of the so called three liberalization packages\textsuperscript{12}. The provisions of these directives were integrated in the Greek legislation progressively in 1999, in 2005 and in 2011\textsuperscript{13}.

2.2.1 The first liberalization package

Under the provisions of European legislation\textsuperscript{14}, common rules were established regarding the generation, transmission, distribution and sale of electricity for all countries members of European Union. The objective of the relevant Directive is the progressively formation of an internal market in electricity sector in order for all the aforementioned activities to become more efficient\textsuperscript{15}.

The issues that are introduced are the competition in electricity generation and the separation of generation, transmission, distribution and supply activities. The transparency is achieved through the establishment of different accounts for each activity. Furthermore, it is introduced the third party access, meaning the assurance that third parties will enjoy equal rights regarding the access to transmission and distribution systems\textsuperscript{16}.

2.2.2 The second liberalization package

The first directive contributed to the formation of an internal market in electricity sector, however, the procedures needed to speed up and to become more flexible. Therefore, the European Union issued in 2003 the relevant directive\textsuperscript{17} which replaced the previous one and its main objective is the acceleration of internal electricity market

\textsuperscript{12}Directives 1996/92/EC, 2003/54/EC and 2009/72/EC
\textsuperscript{13}Greek Laws 2773/1999, 3426/2005 and 4001/2011
\textsuperscript{14}Directive 1996/92/EC
\textsuperscript{15}Τ. Λιτράς, Η απελευθέρωση της αγοράς ηλεκτρικής ενέργειας και η σύμβαση προμήθειας, 2017, p. 36
\textsuperscript{16}Τ. Λιτράς, Η απελευθέρωση της αγοράς ηλεκτρικής ενέργειας και η σύμβαση προμήθειας, 2017, p. 37
\textsuperscript{17}Directive 2003/54/EC
formation. According to the new directive, after 1.7.2007 all consumers were eligible to select their own supplier\textsuperscript{18}.

Furthermore, transmission and distribution operator is obligated, under the provision of this directive, not only to accounting unbundling but also to legal unbundling from other activities. Another significant topic of the new directive is the obligation of country-members to establish a regulatory authority with the responsibility to supervise the operation of electricity market\textsuperscript{19}.

\subsection*{2.2.3 The third liberalization package}

The so called “third liberalization package” includes a series of laws which were issued in 2009 and completed the formation of the internal electricity market. The relevant directive\textsuperscript{20} is the most important part of the package and it aims to the absolute compliance of the member-countries internal legislation. Furthermore, it introduces, besides the accounting and legal unbundling that already have been introduced in the previous directives, the ownership unbundling of the vertically integrated corporations. Thus, it is achieved the promotion of competition\textsuperscript{21}.

\subsection*{2.3 Legal framework and liberalization of electricity market in Greece}

PPC was established in 1950 as a state owned company, vertically integrated, and it exclusively produced, transmitted, distributed and supplied with electricity the Greek territory. The Greek electricity market was operating according to the aforementioned monopolistic model for almost half century. During that period, some industrial units had the right to produce electricity, however, only for their own consumption. Regard-

\footnotesize
\begin{itemize}
\item \textsuperscript{18} T. Litras, Η απελευθέρωση της αγοράς ηλεκτρικής ενέργειας και η σύμβαση προμήθειας, 2017, p. 40
\item \textsuperscript{19} T. Litras, Η απελευθέρωση της αγοράς ηλεκτρικής ενέργειας και η σύμβαση προμήθειας, 2017, p. 40
\item \textsuperscript{20} Directive 2009/72/EC
\item \textsuperscript{21} T. Litras, Η απελευθέρωση της αγοράς ηλεκτρικής ενέργειας και η σύμβαση προμήθειας, 2017, p. 40
\end{itemize}

-10-
ing the private sector, it was allowed electricity production from renewable energy sources exclusively. The price of electricity was determined from the Greek government\textsuperscript{22}.

The Greek electricity sector was obliged to comply with the aforementioned European legislation as member of the European Union. The implementation of the EU directives in the internal market was not an easy task due to the monopolistic model of the Greek electricity sector. The issuance of permits to private companies for electricity production was not enough. Third party access to the transmission system and the sale price of the electricity were some of the issues that might have hindered private investments to the electricity sector\textsuperscript{23}. Incentives to private companies should have been provided, therefore, the regulation of the electricity market was mandatory. The resolution of various problems achieved progressively by integrating the European directives to the Greek legislation\textsuperscript{24}. This was accomplished, basically, with the issuance of the relevant Greek laws\textsuperscript{25}.

2.3.1 Compliance with the first liberalization package

Greek legislation\textsuperscript{26} introduced the terms of the relevant European Directive\textsuperscript{27} regarding the electricity market liberalization. This law was considered as a milestone and it was the initial step for vast changes in the operation of electricity sector in Greece. According to the law, the electricity market is regulated, from then on, from the Regulatory Authority of Energy (R.A.E.) which monitors the domestic energy market and secures the electricity and natural gas market liberalization\textsuperscript{28}. The Minister of development is the responsible person to issue the permits for the electricity production to private com-

\textsuperscript{22} A. Dragoumas/D. Labridis/P. Biskas/P. Dokopoulos, Η αγορά της ηλεκτρικής ενέργειας της Ελλάδας, 2004, p. 4
\textsuperscript{23} Litras, Η απελευθέρωση της αγοράς ηλεκτρικής ενέργειας και η σύμβαση προμήθειας, 2017, p. 44
\textsuperscript{24} Litras, Η απελευθέρωση της αγοράς ηλεκτρικής ενέργειας και η σύμβαση προμήθειας, 2017, p. 49
\textsuperscript{25} Laws 2773/1999, 3426/2005 and 4001/2011
\textsuperscript{26} Law 2773/1999
\textsuperscript{27} Directive 96/92/EC
\textsuperscript{28} http://www.rae.gr/site/categories_new/about_rae/intro.csp
panies. A new public company called “D.E.S.M.I.E.” is responsible for the operation and development of the transmission system and to secure the adequate electricity supply of the Greek territory. The operation of the system is executed according to the “electricity exchange code” which is prepared by D.E.S.M.I.E and is issued by the Minister of Development. PPC has the ownership of the distribution system and also the exclusive right of the operation.  

With the issuance or this law, the partial liberalization of the electricity market was achieved, meaning that only customers who consume more than 100 GWh per year was allowed to choose their own supplier. All the other customers remained still under the same monopolistic model. Finally, under the provision of the article 30 of the law, the accounting unbundling was established, meaning that the integrated companies are obligated to have separate accounts if they exercise monopolistic and non-monopolistic activities at the same time.

2.3.2 Compliance with the second liberalization package

Greek legislation was revised in 2005 and the provisions of the relevant European directive were transferred into the Greek legislation. The major issue that is introduced is the functional unbundling of transmission and distribution operation from the other activities, that is to say that, in general terms, the unbundled undertaking should take its decision independently form the vertically integrated undertaking. Additionally, the electricity market is expanding since all the consumers, except the domestic ones, are defined as eligible consumers. However, from the date of 1.7.2017, all consumers are considered as eligible.

29 Litras, Η απελευθέρωση της αγοράς ηλεκτρικής ενέργειας και η σύμβαση προμήθειας, 2017, p. 52
30 Litras, Η απελευθέρωση της αγοράς ηλεκτρικής ενέργειας και η σύμβαση προμήθειας, 2017, p. 53
31 Law 3426/2005
32 Directive 2003/54/EC
33 Litras, Η απελευθέρωση της αγοράς ηλεκτρικής ενέργειας και η σύμβαση προμήθειας, 2017, p. 54
2.3.3 Compliance with the third liberalization package

The Greek Law issued in 2011\textsuperscript{34} transferred the provisions of the last relevant European directive\textsuperscript{35} to the Greek legislation and it is until nowadays the base law as regards to the operation of the liberalized electricity market in Greece. \textit{Inter alia}, it clarifies the rights of the eligible customers and also the obligations of the suppliers. It introduces the terms of “vulnerable costumers”, “last resort” and “universal services” which enhance the rights of the consumers. The ownership and the operation of the transmission system is transferred to a new company called A.D.M.I.E., the Hellenic TSO, which is affiliated company to PPC\textsuperscript{36}.

2.4 PPC Financial data and organization plan

PPC is the largest producer of electricity in the Greek territory and at the same time the largest supplier with more than seven million customers. Furthermore, by expanding its activities in neighbor countries, it has achieved to be a dominant player in North-East electricity market. The annual turnover for the year of 2016 was 5,3 billion Euros and the amount of total assets 17,1 billion Euros. In the following table are presented aggregated data of the last three years PPC operation\textsuperscript{37}.

\begin{footnotesize}
\begin{itemize}
  \item Law 4001/2011
  \item Directive 2009/73/EC
  \item Litras, Η απελευθέρωση της αγοράς ηλεκτρικής ενέργειας και η σύμβαση προμήθειας, 2017, p. 55,56
  \item https://www.dei.gr/el/i-dei/enimerwsi-ependutwn
\end{itemize}
\end{footnotesize}
The administration of PPC is organized according to a private limited company (Societe Anonyme) administration standard. Briefly and according to the articles of incorporation of the company, the board of directors is the highest authority in the management of the corporation and oversees the activities of the company. Chief Executive Officer is the leader of the company management, he is appointed from the board of directors and he reports to it. The executive committee is responsible for all the issues regarding to company operation and consists of the Chief Executive Officer and the general managers who are accountable for each operating discipline.

The initial capital structure of PPC numbered two 220 billion drachmas and was divided in 220 million shares of nominal value 1.000 drachmas each. In 2002 the nominal value of shares was converted from drachmas to Euros. Several changes of the capital share happened from then on and on 31/12/2016 the capital share numbered 38

Table 1. PPC activity

<table>
<thead>
<tr>
<th>YEAR ENDED 31ST DECEMBER</th>
<th>2016</th>
<th>2015</th>
<th>2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Installed Capacity (GW)</td>
<td>12.1</td>
<td>13.0</td>
<td>12.6</td>
</tr>
<tr>
<td>Percentage of total installed capacity in Greece (1)</td>
<td>61.4%</td>
<td>64.0%</td>
<td>63.6%</td>
</tr>
<tr>
<td>Net Generation (TWh) (2)</td>
<td>30.3</td>
<td>34.1</td>
<td>35.3</td>
</tr>
<tr>
<td>Generation market share (3) (average annual)</td>
<td>62.7%</td>
<td>71.9%</td>
<td>74.9%</td>
</tr>
<tr>
<td>Electricity sold to end customers (TWh) (4)</td>
<td>46.4</td>
<td>49.2</td>
<td>49.5</td>
</tr>
<tr>
<td>Supply market share (5) (average annual)</td>
<td>91.9%</td>
<td>95.4%</td>
<td>97.9%</td>
</tr>
<tr>
<td>Customers (in mil.)</td>
<td>7.3</td>
<td>7.4</td>
<td>7.4</td>
</tr>
<tr>
<td>Number of employees on payroll</td>
<td>18,902</td>
<td>18,355</td>
<td>18,572</td>
</tr>
</tbody>
</table>

38 https://www.dei.gr/el/i-dei/enimerwsi-ependutwn/etairiki-eikona/tautotita-etaireias
1.067.200.000 Euros and was divided in 232 million shares of nominal value 4,60 Euro each. In the following table is presented the shareholding structure of PPC on 31/12/2016.40

Table 2. PPC capital structure

<table>
<thead>
<tr>
<th>Shareholders</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greek State (1)</td>
<td>34.12%</td>
</tr>
<tr>
<td>Hellenic Republic Asset Development Fund (HRADF)</td>
<td>17.00%</td>
</tr>
<tr>
<td>IKA-ETAM/TAP-PPC and TAYTEKO/TEAPAP-PPC (PPC’s Pension Funds)</td>
<td>3.81%</td>
</tr>
<tr>
<td>Institutional Investors &amp; general public (2)</td>
<td>45.07%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
</tr>
</tbody>
</table>

The Hellenic Republic Asset Development Fund (HRADF) is owned 100% by the Greek State, thus, it is worth mentioning that the Greek State controls PPC considering that possesses indirectly 51,12% of the capital share. Except Greek State, HRADF, IKA-ETAM/TAP-PPC and TAYTEKO/TEAPAP-PPC and “Silchester Investors LLP” no other shareholder possesses more than 3% of the capital share. The share of HRADF (17%) is a very significant one since it allows the Greek State to still control PPC. However, this share is projected in the current privatization plan, as it is analyzed in the next chapter, to be sailed in private investors.

In addition, PPC is participating directly in the capital share of numerous companies related to the energy sector. It is also participating indirectly, through PPC renewables,
in the capital share of several companies. In the following table is presented the percentage of the ownership\textsuperscript{41}.

<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>IPTO S.A.</td>
<td>100%</td>
</tr>
<tr>
<td>HEDNO S.A.</td>
<td>100%</td>
</tr>
<tr>
<td>PPC RENEWABLES S.A.</td>
<td>100%</td>
</tr>
<tr>
<td>PPC FINANCE PLC</td>
<td>100%</td>
</tr>
<tr>
<td>PPC Bulgaria 3SCo</td>
<td>85%</td>
</tr>
<tr>
<td>PPC TEDARIK VE TİCARET AS</td>
<td>100%</td>
</tr>
<tr>
<td>LARCO S.A.</td>
<td>11.45%</td>
</tr>
<tr>
<td>WASTE SYCLO S.A.</td>
<td>49%</td>
</tr>
<tr>
<td>PPC SOLAR SOLUTIONS S.A.</td>
<td>49%</td>
</tr>
</tbody>
</table>

Table 3. PPC participations

\section*{2.5 Power plants and other assets}

After the acquisition of all the private electricity companies back to 1950’s century, PPC was developed as a vertically integrated company and exercised the activities of production, transmission, distribution and supply of electricity until the liberalization of the market. PPC constructed large thermoelectric and hydroelectric power, constructed infrastructure for the exploitation of lignite and also expanded the transmission and distribution network\textsuperscript{42}.

\textsuperscript{41} https://www.dei.gr/el/i-dei/enimerwsi-ependutwn/etairiki-eikona/o-omilos-dei

\textsuperscript{42} Litras, Η απελευθέρωση της αγοράς ηλεκτρικής ενέργειας και η σύμβαση προμήθειας, 2017, p. 45
The main raw material for the electricity production in past but even nowadays is lignite which exists in abundance in Greek subsoil. The lignite mines in Ptolemaida, Megalopolis, Drama and Florina are the main sources of energy fuel that PPC exploits for the electricity production. It is estimated that the existing lignite stock in Greek subsoil could afford to supply with fuel the Greek power plants for the next 45 years considering that until today only the 29% has been extracted. The basic advantages of the fuel are that the lignite extraction cost is low and the supply of it is constant and secured. However, the heating capacity of the Greek lignite is relatively low, ranging from 1261kcal/kg to 1615kcal/gr in Ptolemaida\(^43\).

The electricity production is achieved through the 34 thermoelectric and hydroelectric power plants and the 3 wind parks that are built in Greek mainland and supplies with electricity the interconnected system. Apart from this industrial infrastructure, 61 autonomous power stations are built in Greek islands which belong to the non-interconnected system. These power plants are using mainly oil as a fuel but there are also hydroelectric plants and wind and solar parks. The total capacity of PPC’s power stations is 12,760MW\(^44\). The significance of all these assets is extremely high regarding the issue of privatization. A number of the thermoelectric and hydroelectric power plants will be sold, according to the privatization plan, thus they will play an important role to the negotiations with potential private investors. This issue is analyzed in next chapters.

\(^{43}\) [https://www.dei.gr/el/oruxeia/apothemata-kai-poiotita](https://www.dei.gr/el/oruxeia/apothemata-kai-poiotita)

\(^{44}\) [https://www.dei.gr/el/i-dei/i-etairia/tomeis-drastiriotitas/paragwgi](https://www.dei.gr/el/i-dei/i-etairia/tomeis-drastiriotitas/paragwgi)
Picture 1. PPC power plants
3 Privatization of Public Utility Companies

State owned companies are economic entities of great significance for the country and the society. They belong to national government or to regional or local authority and respectively are funded. They could operate in numerous sectors e.g. infrastructure, natural resources, communication, transportation, agriculture etc. and their efficiency is essential for the society and the government. In most cases they used to operate under a monopolistic regime due to the importance of the sector they perform. Last decades, a number of reasons, analyzed in this chapter, lead governments to privatization of public companies.

3.1 The meaning of privatization

Several different approaches of utilization of public property are cataloged based on politics and on proposals of institutional or independent entities. The choices range from direct and total privatization to partial disposal or preservation of ownership and long-term utilization without selling the capital share. The portfolio of public property for utilization consists of the following four base categories, namely, public corporations, infrastructure, exclusive rights and real estate. A wide range of activities belongs to the aforementioned categories: energy, communication, road networks, rail, mines, ports, airports, banks, utility networks, games etc.
There is a distinction between the so-called “typical” and “real” or “formal” privatization. The first term refers to the change of the legal framework a company operates under and the second term refers to the change of the corporate ownership from state to private investors and consequently the change of the control. Thus, for public companies the “typical privatization is obviously a prerequisite for the completion of “formal” privatization. In contrast, state controlled companies that have already been converted to a limited one and operate under the rules of private corporations, can proceed directly to the “formal” privatization process by selling part or the whole capital share to private investors.

Privatization is a process of compressing the role of state or, in other words, augmenting the role of the private sector in a specific market. Liberalization of markets refers to the abolition of monopolies and the provision of competitive goods and services. The governments abolish restrictions in order for the markets to become more efficient. Therefore, the terms of privatization and liberalization of market are definitely correlated.

### 3.2 Objectives of privatization

Privatization is a political action and is mostly proposed by political and economic bodies as an answer to financial crisis that many countries were facing. The objectives of such a process for a government could be summarized to country’s fiscal improvement, enhancement of market’s competition, improvement of public company efficiency, reduction of state’s interference in markets and income redistribution. More specifically, fiscal improvement is achieved by the reduction of country deficit and debt. The income of privatization is used apart for the operation of the public sector and for new investments, also for the payback of the national debt. In addition, privatization aims to

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48 V. Karagiannis, Οι ιδιωτικοποιήσεις ως εργαλεία απελευθέρωσης των αγορών: Η ελληνική εμπειρία, 2015, p. 9,10

49 A. Georgopoulos, Αναδιοργάνωση και μανατζμέντ αλλαγών στις επιχειρήσεις, 2015, p. 128
the introduction of competition in monopolistic markets and therefore, to the reduction of prices and the improvement of product and service quality\textsuperscript{50}.

Low efficiency of most public corporations is another matter of concern. The price of a service offered by a public company is significantly higher in comparison to the private companies operating in the same market. This is explained by the higher operational cost due to the nature of a public company operation which is subject to various engagements and controls\textsuperscript{51}. The introduction of new technologies and innovation, the development of new management methods and other similar actions that enhance the efficiency of a firm, could be achieved through privatization programs\textsuperscript{50}.

The reduction of state interference in national economy is another main objective. This could be achieved by redefining the public sector activities in national economy focusing on government activities\textsuperscript{52}. The mismanagement of public companies combined with corruption and political interference is a common phenomenon. Usually, the selection of the persons who lead a state owned company is subject to political criteria and it is not based on the actual person’s executive skills. The mismanagement of a company leads to debts that are transferred to the customers through the price increasing of the service offered or the imposition of higher taxation. Thus, a company operating under the rules of private market has to undertake the corporate risk which, in most cases, burdens financially the customers. Furthermore, the financing of company debts by governments is something that burdens the citizens and it is also against the rules of market competition\textsuperscript{53}.

The encouragement of extended capital ownership is achieved by the possession of the stocks of a firm by several stockholders. Also, several companies encourage their employers to acquire stocks of the company. These two actions have as result the income redistribution which is an objective of privatization plans\textsuperscript{54}.

\textsuperscript{50} Georgopoulos, Αναδιοργανωση και μανατζμεντ αλλαγών στις επιχειρήσεις, 2015, p. 133,134
\textsuperscript{51} T. Panagos, Κρατική παρέμβαση και ρυθμιστική διοίκηση, 2017, p. 151,152
\textsuperscript{52} Georgopoulos, Αναδιοργανωση και μανατζμεντ αλλαγών στις επιχειρήσεις, 2015, p. 134
\textsuperscript{53} T. Panagos, Κρατική παρέμβαση και ρυθμιστική διοίκηση, 2017, p. 152
\textsuperscript{54} Georgopoulos, Αναδιοργανωση και μανατζμεντ αλλαγών στις επιχειρήσεις, 2015, p. 135
3.3 Different variations of privatization

The preparation steps are essential for the successful privatization of a state owned company and these are usually long term procedures. The objective is to define where the company stands in the market, the evaluation of its price and to select the optimal privatization model. The preparation steps could include the detailed analysis of the financial status of company, the information of the public, the selection of target investors, the funding of the privatization process\textsuperscript{55}. A privatization plan often commences with the reforming of the state owned company. This means taking actions such as the early retirement of staff or the abolishment of non-efficient departments. However, the company still remains under state control\textsuperscript{56}.

The selection of the optimal privatization method is essential for the future success and growth and is often a time consuming process. The main privatization models could be summarized to direct sale, public offer, concession of management and liquidation of part of the company\textsuperscript{57}.

3.3.1 Direct or indirect sale/public offer

The state utilizes the method of auctions for the sale of a public company and selects the investor with the most advantageous and public beneficial bid. The auction could include the whole company or part of it so eventually the state could have minority participation in the “new” corporate\textsuperscript{58}. Another variation is the public offer where several investors, they could be thousand, could buy stocks and become shareholders. The part of the company participating in public offer, usually in stock market, is defined by the

\textsuperscript{55} B. Crahovac, East and West European Public – Private Partnerships, 2004, p. 143
\textsuperscript{56} Georgopoulos, Αναδιοργάνωση και μανατζμεντ αλλαγών στις επιχειρήσεις, 2015, p. 138
\textsuperscript{57} B. Crahovac, East and West European Public – Private Partnerships, 2004, p. 144
\textsuperscript{58} M. Labropoulou, Οικονομική κρίση & πολιτικές αποκρατικοποίησης & αξιοποίησης της δημόσιας περιουσίας, 2013, p. 21
government. In addition, it is common the sale of a significant part to a “strategic buyer” who will participate in the company’s decisions and management\(^59\).

### 3.3.2 Concession of management

In case a government does not want to sell a public company for its own reasons, e.g. not favorable social conditions, it can proceed with the concession model\(^60\). Concession agreements often have duration of thirty or forty years and by the end of this period the concession agreement can be renewed or the subject returns to the state\(^61\). The state receives a lump-sum payment by the commencement of the agreement and/or annually and/or receives an annual percentage rate of profits, depending on the concession agreement.

Concessionaires contribute to the growth of the company by providing elements that the company does not have by its own, namely, financing for new investments, expertise, new machinery etc\(^62\). Concessionaire acquires the operation and management of state owned companies trading in various sectors of economy and usually of great significance for the country. Concession can also occur in infrastructure or real estate categories of state’s property\(^63\).

### 3.3.3 Liquidation

Sometimes a public company is in very poor financial condition due to mismanagement, unpaid bills, large loans etc. In this case, private investors are not interested in acquiring stocks of the company since it would be an unprofitable investment. In order for the company to be restructured and become viable, it is preferred the sale of part of

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\(^{59}\) Georgopoulos, Αναδιοργανωση και μανατζμεντ αλλαγών στις επιχειρήσεις, 2015, p. 138

\(^{60}\) B. Crahovac, East and West European Public – Private Partnerships, 2004, p. 143

\(^{61}\) B. Crahovac, East and West European Public – Private Partnerships, 2004, p. 54

\(^{62}\) B. Crahovac, East and West European Public – Private Partnerships, 2004, p. 143

\(^{63}\) B. Crahovac, East and West European Public – Private Partnerships, 2004, p. 53
the assets (liquidation), thus, the corporation can financially benefit, pay its liabilities and improve its operation and level of services offered. However, in order for the liquidation to be considered a successful one for the company, it should be sold not only the “good” and profitable part of assets but a mixture of assets that will satisfy both parts. If all of the company assets are sold, the company is liquidated and dissolved.

3.4 Privatization of public electricity companies in Europe

Privatization of public enterprises commenced in Europe at the end of 1980’s as a necessary development of the market’s structure. The first country to introduce the privatization in large scale was Great Britain under the governance of Margaret Thatcher. The privatization of energy state owned companies followed in the decade of 1990, especially after the issuance of the European directives as regard to energy market liberalization.

3.4.1 The case of Portugal

Portugal is one of the European countries that proceeded progressively to the privatization of the state owned electricity company, named “Electricidade de Portugal” (EDP). The EDP privatization process is divided to 8 discreet phases. It commenced in order for EDP to meet the requirements of European Union but also in the last phases helped the fiscal situation of Portugal which encountered the economic crisis.

Similar to the case of Greece, in 1976 several electricity companies were merged to establish a single entity which generates supplies and distributes electricity. Portugal state was the only shareholder until the year of 1997 when for the first time private investors acquired stocks of the company through public offering and direct sale. Thus,

64 B. Crahovac, East and West European Public – Private Partnerships, 2004, p. 144
30% of the capital share transferred to public sector. Then, in May 1998, followed a direct sale of 2.25% to the Spanish energy company “Iberdrola”. In June 1998, a significant proportion of shares, approximately 16.2%, was transferred to public investors through a public offer process. October of 2002 was a milestone for EDP as the Portuguese state lost the control of the company by selling another 20% of the capital share and reducing its proportion below 50%. The next phases consisted of increasing of capital share and additional sales until the last privatization phase which took place in October 2011. The proportion of 21.35% was sold to the Chinese energy company named Three Gorges and the Portugal state benefited of 2,69 Euros. This sale was welcomed in Portugal and European Union as it was a prerequisite of Portugal’s help package from E.U. and International Monetary Fund due to its economic crisis.

After the privatization process, EDP has become an international company in the energy sector, it has significantly increased its financial turnover and it is now trading in several countries. At the time being, EDP produces electricity in 12 countries. It is the dominant player in Portugal and fourth in the ranking of Spain electricity producers. Furthermore, EDP’s presence is remarkable mostly in Brazil but also in some European and North America countries. Furthermore, EDP acquires distribution networks except from Portugal, also in Brazil and Spain. Finally, after the liberalization of electricity market, EDP supplies with electricity eligible customers in Portugal, Brazil and Spain.

3.4.2 The case of Italy

The Italian electricity company ENEL (Ente Nazionale per l’ energia elettrica) is a remarkable example of a former state owned company that significantly benefited from its privatization process. ENEL was founded in 1962 through the merger of numerous

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67 https://www.reuters.com/article/us-edp-threegorges/china-three-gorges-buys-edp-stake-for-2-7-billion-euros-idUSTRE7BM04V20111223
small electricity companies which was operating across the Italian territory\textsuperscript{70}. Since
then, ENEL was the sole producer, distributor and supplier of electricity in Italy\textsuperscript{71}.

In 1999, the “Bersani Decree” transferred the provisions of the European Union
“first liberalization package”\textsuperscript{72} regarding the energy market, to the Italian legislation\textsuperscript{73}.
One of the provisions of this Decree was that by 2003 no company could generate more
than 50\% of the total electricity consumption. Thus, ENEL had to decrease its share to
Italian electricity market. The reduction corresponded to 15.000 MW of produced elec-
tricity capacity. Thus, three new companies, subsidiaries of ENEL, were established and
absorbed the aforementioned amount of electricity capacity. These three new electricity
companies were Elettrogen, Eurogen and Interpower, and acquired also part of ENEL’s
debt. Afterwards, by the year of 2003 they were sold to private investors. ENEL bene-
fitied from this process by being compensated with a significant amount of money and
also by discharging part of its debts\textsuperscript{74}.

Nowadays, the Italian state controls the 23,6\% of ENEL through the Ministry of
Economy and Finance. The rest of capital structure consists of retail investors and Insti-
tutional investors all over the world\textsuperscript{75}. After the successful privatization process, ENEL
has achieved to multiply its financial turnover and become a dominant player in global
electricity market. ENEL has presence in thirty countries all over the world in the sector
of generation, distribution and supply and employs globally approximately 63.500 peo-
ple. Its assets include numerous power plants exploiting various raw materials and it is
also trading through renewable energy\textsuperscript{76}.

\textsuperscript{70} https://www.enel.com/stories/a/2016/09/our-history-our-future
\textsuperscript{71} A. Ferrari/M. Giulietti, Competition in electricity markets: International experience and the case of
Italy, Elsevier, 2004, p. 252
\textsuperscript{72} Directive 96/92/EC
\textsuperscript{73} A. Ferrari/M. Giulietti, Competition in electricity markets: International experience and the case of
Italy, Elsevier, 2004, p. 252
\textsuperscript{74} B. Crahowac, East and West European Public – Private Partnerships, 2004, p. 245
\textsuperscript{75} https://www.enel.com/investors/equity/shareholders
\textsuperscript{76} https://www.enel.com/aboutus/a/2016/08/who-we-are
4 Privatization of Greek state owned companies and PPC

The decades of 1970 and 1980 could be characterized as “nationalization” period as large companies were bought, controlled and were operating by the Greek state. These companies are named Companies of Public Interest (D.E.K.O) and political interference, corruption, waste of funds and other malfunctions were and still are common phenomenon.

4.1 Privatizations in Greece

Greek citizens treated with caution the privatization issue due to the state-focus economy and development model that prevailed that period and the “client-relationship” between politicians and voters. The environment was clearly hostile for destatalization ventures77.

Eventually, the privatization of state owned companies in Greece commenced in early 1990’s following Europe which was from the 1980’s decade already familiarized with the destatalization procedures. Some of the first major public companies were Piraeus Bank, a cement producer company called AGET Iraklis and Athens public transportation (OASA). Since then, liberalization of various sectors of Greek market have been occurring, namely, in banks, telecommunications, public utilities, energy and more recently in rails and airports78. It is a fact that Greek governments proceeded at relatively slow pace to transfer of control and in some cases the duration exceeded a ten years’ period. Nowadays, it is an ongoing procedure, more organized structured through the establishment of the Hellenic Republic Asset Development Fund (H.R.A.D.F), a fund which its role will be analyzed few chapters later in this paper.

77 Georgopoulos, Αναδιοργανωση και μανατζμεντ αλλαγών στις επιχειρήσεις, 2015, p. 144
78 Georgopoulos, Αναδιοργανωση και μανατζμεντ αλλαγών στις επιχειρήσεις, 2015, p. 144
4.2 Privatization of PPC: history and background

As mentioned in the introduction of this paper, on 1st of January 2001, PPC was converted to a limited company (Societe Anonyme) named P.P.C. S.A. under the provisions of Greek legislation\textsuperscript{79}. The Greek state was the only stockholder of the new company\textsuperscript{80}. On 12/12/2001 PPC entered the stock market of Athens and London and the negotiation of the shares on these stock exchanges was commenced. Overall, three public offerings took place in the period 2001-2003 which resulted in a significant amount of money received for the Greek state.

Specifically, in December 2001 was offered percentage rate of 15,31%, with price of one stock 1.000 drachmas and the offer was covered by 1,8 times, in December 2002 was offered percentage rate of 13,20%, with price of one stock 4,60 Euro and the offer was covered by 6 times. Finally, in October 2003 was offered percentage rate of 15,73% and the offer was covered by 6,7 times. After the completion of the three public offerings the Greek state had approximately the 51% of PPC capital share. PPC was, from then on, a multiple-shareholder corporation whose significant amount of the capital share belonged to Greek and foreign private investors\textsuperscript{81}.

4.3 The role of EU and the entities of “change of control” procedure

In this chapter are presented the entities which are responsible for the “change of control” procedure of public companies. The establishment of these entities was instructed by the European Union through the “Memorandums of Agreement” that were signed with the Greek governments.

\textsuperscript{79} Law 2773/1999 and 333/2000 Presidential Decree

\textsuperscript{80} PPC Annual report, 2016, chapter 2.1

\textsuperscript{81}https://www.dei.gr/el/palaioteres-anakoinwseis/omilia-tou-dieuthunontos-sumvoulou-kstnezi-stideuteri-taktiki-geniki-suneleusi-twn-metoxwn-tis-dei-ae
4.3.1 Hellenic Republic Asset Development Fund (H.R.A.D.F.)

In 2011 was founded the Hellenic Republic Asset Development Fund (H.R.A.D.F) under the provisions of Greek legislation. Its role is to utilize the public property according to the fiscal framework that Greece has agreed with the European Commission and the International Monetary Fund (IMF). Therefore, HRADF has to attract new investments in infrastructure, energy, real estate and other sectors and also to achieve co-benefits such as new job creation, modernization of infrastructure etc. Several privatizations have been already accomplished or are occurring now under HRADF’s supervision. In HRADF have been transferred the following public property from Greek state under the provisions of Memorandums: real estate, infrastructure and corporate portfolio. In order for its operation to be totally transparent, H.D.R.A.F. is publishing quarterly reports referring to its activities during this period and also for the same reason it is operating under the supervision of internal and external auditors.

Its objective is to harness the public property for two main reasons. The first one is the decrease of the national debt so that Greece is consistent towards its lenders. The second one is to lead the national economy again in a growth route by applying the asset development plan. The objective of H.D.R.A.F. will be accomplished by attracting new investments in infrastructure, energy, real estate and several other sectors of Greek economy. Investments and the generation of new economic activities contribute to the job creation, the increase of Gross Domestic Product (GDP) and the enhancement of Greece’s credibility in global economic markets. Therefore, HDRAF should operate aiming to the maximization of benefit for Greek state.

HDRAF duration was extended until 1/7/2020 by the board of directors of H.C.A.P., which is the sole shareholder, in order to complete its scope.

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82 Law 3986/2011
83 http://www.hradf.com/fund
84 http://www.hradf.com/fund
85 HCAP Company report 01.04.2017-30.06.2017, p. 10
4.3.2 Hellenic Corporation of Assets and Participations (H.C.A.P.)

The only shareholder of H.D.R.A.F. is the Hellenic Corporation of Assets and Participations (H.C.A.P.) which was founded in May of 2016 according to Greek legislation. Its role is to assemble the Greek’s state participations in public companies and also the real estate assets under its supervision and then to utilize them in an optimal way. Apart from H.D.R.A.D., the Hellenic Corporation of Assets and Participations has other three affiliated companies: The Hellenic Financial Stability Fund, the Public Properties Company and the Public Participations Company which is now formatting. Although the Hellenic Financial Stability Fund is an affiliated company, H.C.A.P. has limited control on it.

H.C.A.P. is a company of participations and operates under the provisions of Greek legislation and the relevant law. It does not belong to the Greek public or broader public sector as this is defined by the Greek legislation. The company operates under the rules of the private markets and it was established in order to serve specific public purposes. These are the augmentation of the value of the public property portfolio and the reforms promotion in state owned enterprises through restructuring, optimal corporate governance and transparency. Additionally, its scope is the contribution to the realization of country’s investment policy and the decrease of national debt. The company’s duration has been defined to 99 years.

H.C.A.P. was legally established on 25.10.2016 and by that day it was transferred to it the Hellenic Financial Stability Fund, the Public Properties Company and the Hellenic Republic Asset Development Fund (H.D.R.A.F.). The aforementioned legal entities and a new one, the Public Participations Company which was not yet established at that time, are considered as affiliated companies.

The capital share of HCAP numbers 40.000 common stocks of 1.000 Euro value each one which cannot be transferred. Therefore, the capital share value is 40.000.000 Euro form which the amount of 10.000.000 has already been paid. The three affiliated

86 Law 4389/2016
87 HCAP Company report 01.04.2017-30.06.2017, p. 1
88 HCAP Company report 01.04.2017-30.06.2017, p. 2
companies have been transferred from Greek State to HCAP without return\(^99\). According to the Law\(^90\), the HCAP board of directors is responsible to assess the board of directors of the affiliated legal entities except the Hellenic Financial Stability Fund.

In the following diagram are depicted the H.C.A.P. affiliated companies and the participations of Greek state in state owned companies which are transferred to new Public Participations company:

![Diagram of HCAP affiliated companies and participations](image)

Table 5\(^91\). HCAP affiliated companies

### 4.3.3 Hellenic Stability Fund and Public Properties Company

The Hellenic Financial Stability Fund was established in July of 2010 under the provisions of the Greek legislation\(^92\) and its scope is the preservation of Greek banks economic consistency. Although it is considered an affiliated company, H.C.A.P. has limited control on it\(^93\).

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\(^99\) HCAP Company report 01.04.2017-30.06.2017, p. 15  
\(^90\) Law 4389/2016, Article 188, par. 9  
\(^91\) HCAP Company report 01.04.2017-30.06.2017, p. 4  
\(^92\) Law 3864/2010  
\(^93\) [http://www.hfsf.gr/el/index.htm](http://www.hfsf.gr/el/index.htm)
The Public Properties Company was founded in 1998\(^{94}\) under the name “Societe Anonyme Asset Development EOT”. The next years acquired or merged with other public enterprises and eventually from 2011 has its current name\(^{95}\). Its scope is to manage and harness the real estate portfolio which acquired from Greek State. Its portfolio numbers more 71.500 property deeds in Greek territory which acquired them from Ministry of Economics, the Hellenic Tourist Organization (E.O.T.), Olympic Assets and H.R.A.D.F\(^{96}\).

The Public Participations Company is under constitution/formation and its scope is to possess, manage and increase the value of participations in state owned companies by applying efficient methods as regards to corporate governance and conformance, auditing and transparency\(^{97}\).

### 4.3.4 H.R.A.D.F. and PPC

H.D.R.A.F. publishes annually the revised Assed Development Plan which mentions briefly the utilization progress of shares that state owns on public or not public corporations. The 2017 published Asset Development Plan summarizes that the next step in PPC utilization process is the sale of 17\% of the company’s capital share. Furthermore, there is an ongoing procedure of A.D.M.I.E. sale from PPC to Greek state (25\% of ADMIE stocks) and to a strategic investor (24\% of ADMIE stocks). In addition, mentions that HCAP, which possesses 51\% of the capital share, will enter the stock exchange. As regards to next steps, the report outlines that consultants’ recruitment will take place in the first quarter of 2017 and also some alternatives will be evaluated\(^{98}\).

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\(^{94}\) Law 2636/1998


\(^{96}\) HCAP Company report 01.04.2017-30.06.2017, p. 2

\(^{97}\) HCAP Company report 01.04.2017-30.06.2017, p. 3

\(^{98}\) H.R.A.D.F. Asset Development Plan, January 2017, p. 20
5  PPC recent and present plan

The first attempt for a partial change of PPC control from Greek state to private investors, after the three public offerings in 2001, 2002 and 2003, was made in 2014 with the issuance of the relevant Greek Legislation\(^{99}\).

5.1  The case of “small PPC”

The Law prescribed the formation of a new, vertically integrated electricity company which will absorb 30% of PPC’s assets, liabilities, workforce and customers. The new company was named “Small PPC” that period in spoken Greek and its coming formation raised huge reactions from part of interested parties.

The reason for the development of this process was the obligation of compliance with the rules of liberalized energy market and competition instructed by the European Commission. PPC, until that time, had exclusive rights to lignite mines and hydroelectric energy, meaning cheap natural recourses for electricity production. The rest of electricity producers had no access to lignite so they had to produce electricity using more expensive resources (e.g. natural gas). The formation of the new company was aiming to resolve this issue by granting access to lignite for third parties that will participate to this new corporation. Consequently, the competition will be enhanced, the electricity market will be truly liberalized and, finally, PPC will be financially strengthened by the sale of 30% of its assets and customers.

Greek legislation prescribed that in the new company are transferred the lignite power plants “Amindeo I &II” with a total power of 600MW, the lignite power plant “Meliti I” with a power of 330MW and the license of the lignite power plant “Meliti II” with a power of 450MW. It is also transferred the exclusive right for exploitation of the lignite mines that support the aforementioned power plants. Additionally, the new company acquires the hydroelectric power plants of Platanovrisi, Thisavros, Agras, Edesseos, and Pournari I&II with power of 116MW, 384MW, 50MW, 19MW and 334MW.

\(^{99}\) Law 4273/2014
respectively. Finally, in the transferred assets is included the natural gas power plant in Komotini with power of 485MW\(^{100}\).

By the time the new company is established, the aforementioned property is transferred to it and PPC acquires the entire capital share of it. The value of the capital share should correspond to the net worth of the transferred property which includes assets, liabilities, workforce and customers. Subsequently, the entire capital share of the new company should be transferred to interested parties through a public tender process. The price should be at least equal to the book value of the transferred assets. The earnings that PPC acquires from the sale of stocks should be allocated to the upgrade and modernization of the old lignite power plants\(^{101}\).

Greek government was aiming to acquire several benefits from the establishment of “Small PPC”. According to the, at that time, Minister of Energy, the new status in electricity market could promote competition and customers benefit of the lower electricity prices. The new company undertakes, except of the 30% of assets, also 30% of the financial burdens and 30% of risk. PPC receives a significant amount of cash, which is estimated approximately 2 billion Euro, and could be developed to a dominant player in Balkans. Additionally, Greek economy could benefit of new investment for the construction of the power plant “Meliti II” whose cost is estimated 1-1,5 billion Euro. The case of the Italian electricity company “ENEL” is a typical example, since in the year of 1999 proceeded to a similar procedure and then became a dominant player in electricity market worldwide\(^{102}\).

Eventually, the “Small PPC” model was not realized due to the change of government that occurred in Greece that period. The new government abolished the relevant Law\(^{103}\) and proceeded to the establishment of a new model, namely the NOME auctions, in order to meet the requirements of the European Commission as regards to competition.

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\(^{100}\) Law 4273/2014, Article 1
\(^{101}\) Law 4273/2014, Article 2
\(^{103}\) Law 4389/2016, Article 152
5.2 NOME auctions

NOME auctions were first introduced to Greek legislation in 2015 and is a process that allows interested parties such as electricity suppliers to acquire/gain access for a specific period of time to a specific amount of electrical energy. NOME (Nouvelle Organisation du Marche de l’ electricite) procedure has been already implemented in France by the year of 2010 in an electricity market that EDF was a dominant player\textsuperscript{104}. The objective of the first Greek relevant Law was initially the decline by 25% of PPC share in wholesale and retail electricity market and eventually the decline by 50% by the year of 2020. Essentially, the Law prescribes that after the year of 2020, it is not allowed for a company to produce or import, directly or indirectly, more than 50% of the electricity that is produced or imported in Greece\textsuperscript{105}.

The scope of NOME auction procedure is to allow access of eligible suppliers to the internal electricity market so to be achieved the redistribution of retail and wholesale electricity market share in Greece. This will cause the promotion of competition, the enhancement of service quality and the reduction of prices for the final customers\textsuperscript{106}.

For this reason, the rate of decrease of PPC share in market should be 8% for the year of 2016, 12% for 2017, 13% for 2018 and 13% for 2019 with reference date August of 2015. The annually quantity of electricity to be auctioned should correspond to the above mentioned rates of decrease of PPC share in retail market\textsuperscript{107}. The initial price of a NOME auction is defined in a Common Ministerial Decision by the Ministries of Economics and Energy after the proposal of Regulatory Authority of Energy\textsuperscript{108}.

In accordance to the aforementioned, the Greek Regulatory Authority of Energy proceeded to the issuance of the “Exchange Code for Electricity Forward Auctions”\textsuperscript{109}.

\begin{footnotesize}
\begin{enumerate}
x_070514_1?p=file&i=21
\item[105] Law 4336/2015
\item[106] Law 4389/2016, Article 132,133
\item[107] Law 4389/2016, Article 135
\item[108] Law 4389/2016, Article 139
\item[109] Decree 353/2016
\end{enumerate}
\end{footnotesize}
The Code defines in detail the rights and the obligations of the eligible suppliers, of the electricity market operator (L.A.G.I.E.) and of PPC and describes the participation prerequisites of eligible suppliers in the auction and the register procedure. The code also defines the rules of the auctions process, the outcome of them and determines the financial obligations of suppliers and sellers. The auditing mechanisms for the accomplishment of objectives and the cooperation of LAGIE with the other interested parties are finally denoted in the Code\textsuperscript{110}.

Additionally and in accordance to the aforementioned, the Greek Regulatory Authority of Energy issued the decree\textsuperscript{111} which defines the quantity of electricity to be auctioned through a specific methodology. The quantity of electricity forwards for the year of 2016 defined to 460MWh/h, the date of the auction was the 25\textsuperscript{th} of October 2016 and the initial price was set to 37,37 Euro/MWh. In this first auction, twelve companies participated and eleven of them absorbed the overall auctioned electricity quantity. The prices ranged from 37,37€/MWh to 37,50€/MWh.

For the year of 2017, the electricity quantity to be auctioned was defined to 681MWh/h according to relevant decree of Regulatory Authority of Energy. This quantity is allocated to four auctions taking place in January, April, July and October. The reserve auction price was defined 37,37€/MWh for January and April auctions and 32,05€/MWh for July and October auctions. In the auction of October 2017 was auctioned 718MWh/h, which was the highest amount of electricity from the commencement of NOME procedure, and the electricity forwards price reached the highest level, namely, 45,20€/MWh\textsuperscript{112}.

5.3 Plans in progress

The scope of NOME auctions, as mentioned above, is the reduction of PPC’s share in electricity market. However, there were reasonable doubts by Commission that this goal could not be achieved through NOME auctions process. The first auction which took

\textsuperscript{110} Law 329/2016
\textsuperscript{111} Decree 353/2016
\textsuperscript{112} Appendix 1
place in October 2016 confirmed these doubts as PPC’s share in energy market during the last months of 2016 was not diminished but contrariwise it was slightly increased. Specifically, in October 2016 PPC’s share in domestic electricity market was 87,89% while in December 2016 was 89,83%. The target rate for the last month of 2016 was 87,24% as in the reference month (August 2015) the PPC share was 95,24% and the Law prescribed 8% decrease for the year of 2016.

5.3.1 The share of H.R.A.D.F.

Greek State possessed the 51% of PPC capital share until the year of 2014. In 11/04/2014, under the provision of Greek legislation, PPC announced the transfer of 39,440,000 common stocks of PPC SA from Greek State to Hellenic Republic Asset Development Fund which correspond to 17% of the capital share. Greek State received no compensation for this transfer. Until the time of this dissertation writing, H.R.A.D.F. has this share and, taking into account that Greek state owns 100% H.R.A.D.F., through H.C.A.P., it is concluded that Greek State still has the control of PPC.

The share of 17% was for sale to private investors from the year of 2011 (before it was transferred to H.R.A.D.F.) through the “privatization program” under the Greek legislation. The sale of 17% is also mentioned again in the so called “3rd Memorandum” through the Asset Development Plan. As mentioned above, the 2017 Asset Development Plan prescribes the recruitment of consultant for the sale of 17%.

In 10/05/2017 H.R.A.D.F. announced the call for interest expression as regards to the recruitment of an advisor providing consulting services. The granted advisor should present comprehensively in his report the current status of the Greek electricity market.

113 http://www.imerisia.gr/article.asp?catid=26519&subid=2&pubid=114445808
114 Law 4472/2017, Article 101
115 249/2014 decree of Greek Destatalization Committee, Law 3985/2011
116 Law 3985/2011
117 Law 4336/2011, chapter 4.4
118 Asset Development Plan (A.D.P.) 2017
and also present the property and operation of PPC as regards to financial position and in connection with market situation and legal framework. Furthermore, the consultant should present his proposal for utilizing H.R.A.D.F.’s share in PPC, provide alternatives and present a time schedule for the proposed actions. The agreement’s duration was defined to three months and the offers were to be submitted until 9/6/2017. However, on 19/7/2017 H.R.A.D.F. announced the cancellation of the tender. Since then, there is no progress on this issue.

5.3.2 The sale of power plants and lignite mines

Additionally, to the sale of 17% of PPC stocks that H.R.A.D.F. owns, in May 2017 came again to the front the sale of lignite and hydroelectric power plants. According to Greek legislation, the sale percentage rate defined to 40% of PPC’s lignite power. With the issuance of the relevant Law, Greek State complied to the European Commission decisions as regards to the access to lignite from alternative producers.

More specifically, in 05/03/2008 the European Commission published the decision obligating Hellenic Republic to implement measures in electricity market as regards to the exclusive rights to access to lignite for PPC. The rationale of the decision was that by applying and preserving that kind of privileges the Greek state allowed PPC to possess and keep a dominant position in domestic electricity market as PPC utilized an inexpensive raw material that other producers could not had access to. This is against the European Union Treaty regarding competition and exclusive rights.

In 13/05/2008 Hellenic Republic appealed against this decision in European Union General Court. After the two parts submitted several intervention statements, the General Court issued a ruling that upheld the decision of the European Commission.

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119 Invitation for expression of interest for the provision of strategic advisory services regarding HRADF’s participation in PPC, HRADF announcement on 10.05.2017
120 Decree 57/2017 (19.05.2017)
121 E(2008)824
122 European Union Treaty Article 82&86 par.1
eral Court dismissed the appeal in 15/12/2017\textsuperscript{123} obligating Hellenic Republic to conform to the initial decision of European Commission.

Greek State, after the issuance of this irrevocable decision, proceeded to the publishing of the relevant legislation\textsuperscript{124}, defining the procedures that will be followed. The relevant Law prescribes the disposal of 40% of PPC’s lignite power to new or existing alternative suppliers or other investors which will be not connected with PPC or its affiliated companies. The measures to be implemented will be submitted by November 2017 to the Directorate-General for Competition of the European Union and shall be realized by June 2018.

\textsuperscript{123} General Court of European Union, decision 748/15.12.2017

\textsuperscript{124} Decree 57/2017 (19.05.2017)
6 Conclusions

Public Power Corporation privatization is in the foreground of political and social life of Greece for more than twenty years. It is an issue that emerged in early 90’s when the change of control of public companies started timidly to be discussed from Greek politicians. In the first years of the new century the changes in electricity market, prescribed from the European Union as regards to the liberalization of the market, led to the first steps of PPC privatization. However, in the middle of 2010’s decade, the PPC change of control is not only necessary in order for PPC to follow the development in the state owned companies’ operation, but it is strongly instructed from the institutions that are the creditors of Greek state and it is included in the prerequisites for further support.

The period that this dissertation is written, PPC is a company that operates under the rules of the private market and the Greek state has still the control of PPC by holding indirectly about 51% of the capital structure. However, PPC is in bad financial situation mainly due to the high amount of unpaid bills from its customers. The reforms in company’s structure and operation seem to be necessary in order for PPC to be at first a viable and then a prosperous corporation.

The case of “Small PPC”, analyzed in chapter 5.1, was a venture that already had been implemented in foreign countries (e.g. Italy). The sale of 30% of power and hydroelectric plants might had been an advantageous solution for PPC and also for Greek state taking into account the possible benefits mentioned in chapter 5.2. However, one should not disregard the bad financial situation of Greece which leads to decrease of the assets’ value. The sale of new company is not certain that would have attained the price that Greek government was estimating.

NOME auctions process was implemented as an alternative since “Small PPC” plan was abandoned. The electricity forwards auction aims to the reduction of PPC’s share in domestic electricity market and it is a procedure that first was implemented in France. In Greece it started in 2016 and it is an ongoing procedure with target time the year of 2020. However, at the time this dissertation is written, NOME auctions seem not to ful-
fill the targets set initially. In the end of 2016, the share of PPC in electricity market was higher than expected by two percentage units as mentioned in chapter 5.3 (89.83% instead of 87.24%). Similarly, it seems impossible to reach the target of 75.24% for the year of 2017\textsuperscript{125} as in the end of October the share of PPC was announced 83.21%\textsuperscript{126}. This argument is supported from the fact that the prices of electricity products are reaching high values, for example in the last auction of October the price was defined at 45.20€/MWh. Thus, according to alternative suppliers\textsuperscript{127}, the high price of the auctioned electricity product does not allow them to offer a more competitive price in order to attract existing PPC’s customers. As a result, the market share of PPC is reduced at a very low rate. Additionally, alternative suppliers argue that the segmentation of the overall annual auctioned electricity quantity in several auctions is not in favor of them as leads in higher final prices each time\textsuperscript{127}. On the contrary, PPC is argues that the auction of big quantity amounts could lead to price collapse and financial loss for PPC. Conclusively, to writer’s opinion, NOME auction process seem to be an inefficient way for the restructuring of electricity market and could only deemed as a complementary measure.

The sale of 17% of PPC capital share that owns HRADF, analyzed in chapter 5.3.1, is still under discussion even though it is in the foreground from the year of 2011. The cancellation of consultant’s recruitment from HRADF indicates that the whole process is frozen at the time being. This is officially expressed by the president of HRADF whose statement is based on the difficulty of the PPC value appraisal\textsuperscript{128}. HRADF could not move on to the utilization of its share until the pending issue of the lignite and hydroelectric power plants sale is clarified. Then the position of PPC in the electricity market and the value of the PPC’s stock could be defined. Furthermore, to writer’s opinion, the actual financial condition of Greece could have as a result the underestimation of PPC value and a possible sale of stocks could be disadvantageous for Greek state.

\textsuperscript{125} Law 4472/2017, article 101

\textsuperscript{126} Appendix 2


\textsuperscript{128} http://www.hradf.com/post/546/nea
Except from the 17% sale, it is also under discussion the sale of the 40% of lignite and hydroelectric power plants as analyzed in chapter 5.3.2. It is a similar to the “small PPC” plan that came to the foreground again from the creditors of Greek state. The issue is under negotiations between the Greek government and the creditors. If is that the case finally, the capital acquired from the sale of these assets should be adequate to help PPC to be consistent to its financial obligations and also to contribute to upgrading of the remaining assets and infrastructure. The 40% share should include a mixture of old and new power plants taking into account their life cycle and their efficiency. Certainly, there will be indirect benefits for Greek economy if a license is included in the package (power plant Meliti II) through the investment for the construction of power plant. In general, the agreement should be, at least, not disadvantageous for Greek state, however, this is questionable taking into account the unfavorable financial circumstances in Greece.

For Greek state’s interest, a safer approach could be the management concession of part of the power plants and lignite mines instead of their sale. The mixture of power plants and lignite mines that will derive from the negotiations will be granted to a concessionaire who will operate them and will undertake the risk and the benefit for a specific period of time which is initially defined. The concessionaire should derive from an auction process whose terms will secure Greek state’s interest. An independent authority is responsible for the supervision of the procedure and for the future compliance of the granted company to the concession agreement terms.

Another advantage of the management concession in PPC’s case is the social considerations. One of more significant reasons PPC’s privatization delay is the public reactions in a potential PPC sale. Being afraid of these reactions, politicians were reluctant to undertake the responsibility for any activity that will change the control of PPC from the Greek state to private investors. By conceding only the management for a specific period of time and keeping the ownership of the property, Greek government could not only secure the public interest but also could manage better the social reactions.

Concession of management is a process that has already been implemented in Greece in the cases of runways, airports, so the experience and expertise exists. However, one should not disregard that lignite mines and consequently the power plants which are supplied from them, have a limited life time according to the remaining lignite stock.
of the mine. Subsequently, the concession period should adjust accordingly. In contrast, hydroelectric power plants do not face similar limitations.

After several years of debating or one could say several lost years, PPC’s restructuring seems mandatory. PPC should follow the international development in corporate governance and not remain in the path of stagnation due to obsolete thoughts of Greek politicians and syndicalists. If PPC does not change it is almost certain that its financial obligations will become even bigger and the shrinking of the company will be inevitable. PPC had strived together with industrial sector of Greece for the growth of the country after the 50’s decade and now it is on the verge of change which will allow the company to thrive again and become a dominant player not only in Greece but also in the broader region of south-eastern Europe as several other Greek companies had achieved.
Bibliography

1. https://www.dei.gr/el
2. T. Litras, Η απελευθέρωση της αγοράς ηλεκτρικής ενέργειας και η σύμβαση προ-μήθειας, 2017
3. C. Paraskevopoulos-Kolias, Η δομή της ελληνικής αγοράς ηλεκτρικής ενέργειας, 2017
5. A. Dragoumas/D. Labridis/P. Biskas/P. Dokopoulos, Η αγορά της ηλεκτρικής ενέργειας της Ελλάδας, 2004
7. B. Crahovac, East and West European Public – Private Partnerships, 2004
9. V. Karagiannis, Οι ιδιωτικοποιήσεις ως εργαλεία απελευθέρωσης των αγορών: Η ελληνική εμπειρία, 2015
10. A. Georgopoulos, Αναδιοργάνωση και μανατζμεντ αλλαγών στις επιχειρήσεις, 2015
11. T. Panagos, Κρατική παρέμβαση και ρυθμιστική διοίκηση, 2017
15. https://www.enel.com/
17. PPC Annual report, 2016, chapter 2.1
19. HCAP Company report 01.04.2017-30.06.2017
20. Law 4389/2016, Article 188, par. 9
23. H.R.A.D.F. Asset Development Plan, January 2017
24. Law 4273/2014
26. Law 4389/2016, Article 152
27. Law 4336/2015
29. Law 4472/2017, Article 101
30. 249/2014 decree of Greek Destatalization Committee
31. Law 3985/2011
32. Invitation for expression of interest for the provision of strategic advisory services regarding HRADF’s participation in PPC, HRADF announcement on 10.05.2017
33. Decree 57/2017 (19.05.2017)
34. E(2008)824
35. European Union Treaty Article 82&86 par.1
36. General Court of European Union, decision 748/15.12.2017
37. Decree 57/2017 (19.05.2017)
## Appendix 1 NOME Auction October 2017 results

### Purchase Declarations Final Classification Table

**Auction Code:** 2017A04  
**Auction Type:** Yankee-Auction  
**Purchase Declarations Submission Gate Open:** 25/10/2017 12:00:00  
**Purchase Declarations Submission Gate Close:** 25/10/2017 12:30:00  
**Purchase Declarations Gate Extension Close:** 26/10/2017 01:03:00

### Forward Product Technical Details '2017A04P04'

- **Product Code:** 2017A04P04  
- **Product Quantity:** 718 (MWh/h)  
- **Product Volume:** 6,280,660 (MWh)  
- **Product Duration:** 8760 (hrs)  
- **Physical Delivery Period:** 2017/12/31 00:00:00 - 2018/11/30 24:00:00  
- **Product Reserve Price:** 32.65 (€/MWh)

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Appendix 2 PPC’s share in supply market in October 2017