



June 2016

PPC Renewables

Brief Company Profile

- **PPC Renewables S.A., founded in 1998, is a wholly-owned subsidiary of PPC S.A. The company commenced its autonomous operation in 2007 after spinning-off the Renewable Sector from Public Power Corporation**
- **The company's present portfolio of installed capacity equals to 152,6 MW**
- **PPC Renewables is among the leading companies in Greek RES market, continuing thus the legacy of PPC S.A. which has been the incumbent company in national RES Industry, since 1982**

PPC Renewables Strategic Advantages

Fully Diversified Portfolio of RES Projects

Subsidiary of the Leading Energy Group in Greece

Extroversion via meaningful collaborations




PPC Renewables

Brief Company Profile - Installed Capacity of Projects

INSTALLED CAPACITY 152,6 MW



Installed Projects

		MW
	Wind Farms	21 81.07
	SHPPs	17 69.55
	PV Stations	7 1.32

PPC Renewables

Brief Company Profile - Financial Figures

	2015	2014	Δ%
SHARE CAPITAL	€ 150.7 mil.	€ 150.5 mil.	0,11%
REVENUES	€ 28.2 mil.	€ 25.0 mil.	12,8%
EBITDA	€ 21.2 mil.	€ 15.7 mil.	35,03%
EBT	€ 16.6 mil.	€ 9.4 mil.	76,6%
NET PROFIT	€ 10.6 mil.	€ 6.9 mil.	53,62%

*Amounts in mil. Euro

Strategic Partnerships with leading Energy & Construction Groups of Private Sector

EDF Energies Nouvelles

Projects already operating: 38MW
Plans for additional joint Projects

Rokas Iberdrola Renewables Group

Projects already operating: 8.2MW

MEK Energy S.A.

Projects already operating: 4.1MW
Projects under development: 15MW

NAMKO Energy S.A.

Projects already operating: 4.2MW

TERNA Energy S.A.

Projects already operating: 6.6MW
Projects under development: 15.8MW

ELTECH S.A.

Projects already operating: 4.9MW

PLATINA PARTNERS Ltd

Projects under development: 119.6MW



Small Hydro Power Plants Department

June 2016

Small Hydro Power Plants (SHPP) in operation 17

- ✓ SHPP Glafkos
- ✓ SHPP Stratos II
- ✓ SHPP Louros
- ✓ SHPP Gitani
- ✓ SHPP Alatopetra
- ✓ SHPP Vorino
- ✓ SHPP Eleousa
- ✓ SHPP Agia Varvara
- ✓ SHPP Vermio
- ✓ SHPP Makrochori
- ✓ SHPP Ilariona
- ✓ SHPP Smokovo
- ✓ SHPP Agios Ioannis
- ✓ SHPP Oinoussa
- ✓ SHPP Almiros
- ✓ SHPP Giona
- ✓ SHPP Papadia



SHPP	Power (MW)
In operation	69.6
Under Construction	41.5

SHP GLAFKOS

INSTALLED POWER CAPACITY	3,7 (1,3+2,4) MW
ANNUAL POWER GENERATION	11 GWh
TURBINE	1 PELTON + 1 FRANCIS



SHP STRATOS II

INSTALLED POWER CAPACITY	6,3 (2 x 3,15) MW
ANNUAL POWER GENERATION	11 GWh
TURBINE	2 KAPLAN (S-TYPE)



SHP LOUROS

INSTALLED POWER CAPACITY	10,3 (2x2,5 +1x5,3) MW
ANNUAL POWER GENERATION	44,3 GWh
TURBINE	3 FRANCIS



SHP GITANI

INSTALLED POWER CAPACITY	4,2 (2x2,1) MW
ANNUAL POWER GENERATION	14,4 GWh
TURBINE	2 KAPLAN (S-TYPE)



SHPP ALATOPETRA	
INSTALLED POWER CAPACITY	5,1 (3,5+1,6) MW
ANNUAL POWER GENERATION	14,3 GWh
TURBINE	1 PELTON + 1 FRANCIS



SHPP VORINO	
INSTALLED POWER CAPACITY	4,1 MW
ANNUAL POWER GENERATION	25,1 GWh
TURBINE	1 PELTON



SHPP ELEOUSA	
INSTALLED POWER CAPACITY	6,6 (2x3,3) MW
ANNUAL POWER GENERATION	29,7 GWh
TURBINE	2 KAPLAN (S-TYPE)



SHPP AGIA VARVARA	
INSTALLED POWER CAPACITY	0,9 MW
ANNUAL POWER GENERATION	4,5 GWh
TURBINE	1 KAPLAN (S-TYPE)



SHPP VERMIO	
INSTALLED POWER CAPACITY	0,7 (1,8) MW
ANNUAL POWER GENERATION	4,84 GWh
TURBINE	1 (2) FRANCIS



SHPP ILARIONAS	
INSTALLED POWER CAPACITY	4,2 MW
ANNUAL POWER GENERATION	22 GWh
TURBINE	1 FRANCIS



SHPP MAKROCHORI	
INSTALLED POWER CAPACITY	10,8 (3x3,6) MW
ANNUAL POWER GENERATION	38,94 GWh
TURBINE	3 KAPLAN (S-TYPE)



SHPP SMOKOVO	
INSTALLED POWER CAPACITY	10,4 (7,1+3,3) MW
ANNUAL POWER GENERATION	10,9 (17,7) GWh
TURBINE	2 FRANCIS



SHPP AGIOS IOANNIS	
INSTALLED POWER CAPACITY	0,35 MW
ANNUAL POWER GENERATION	1 GWh
TURBINE	1 FRANCIS



SHPP OINOUSA	
INSTALLED POWER CAPACITY	1,5 MW
ANNUAL POWER GENERATION	3,85 GWh
TURBINE	1 PELTON



SHPP ALMIROS	
INSTALLED POWER CAPACITY	0,3 MW
ANNUAL POWER GENERATION	0,6 GWh
TURBINE	1 FRANCIS



SHPP GIONA	
INSTALLED POWER CAPACITY	8,5 MW
ANNUAL POWER GENERATION	38 GWh
TURBINE	1 FRANCIS



SHPP PAPADIA	
INSTALLED POWER CAPACITY	0,5 MW
ANNUAL POWER GENERATION	2,3 GWh
TURBINE	1 PELTON



**Total Power Production of 2015 :
184.7 GWh**

SHPP's under development - construction

HPP IKARIA	
INSTALLED POWER CAPACITY	6.85 MW
POWER GENERATION PREDICTION	9.81 GWh
CAPEX	47.58 €x1000

SHPP MAKROCHORI II	
INSTALLED POWER CAPACITY	4,9 (2 x 2,45) MW
POWER GENERATION PREDICTION	9.8 GWh
CAPEX	6.9 €x1000

SHPP SMOKOVO II	
INSTALLED POWER CAPACITY	3,2 (2 x 1,6) MW
POWER GENERATION PREDICTION	5.4 GWh
CAPEX	4.55 €x1000

SHPP LOUROS	
INSTALLED POWER CAPACITY	8.84 MW
POWER GENERATION PREDICTION	46 GWh
CAPEX	6.4 €x1000

SHPP VERMIO	
INSTALLED POWER CAPACITY	1.8 MW
POWER GENERATION PREDICTION	6 GWh
CAPEX	3.2 €x1000

SHPP LADONA	
INSTALLED POWER CAPACITY	10 MW
POWER GENERATION PREDICTION	25 GWh
CAPEX	12.74 €x1000

SHPP KALAMA	
INSTALLED POWER CAPACITY	5.8 MW
POWER GENERATION PREDICTION	19 GWh
CAPEX	9.31 €x1000

Negotiations for new SHPP development in cooperation with the private sector

Hybrid Power Station of Ikaria

Hybrid Power Station of Ikaria

Power Capacity (MW)	6,85
Annual Power Production (MWh)	9.810
Capacity Factor	16,35%
Total Investment (mil. €)	47,50
Construction progress	85%
End of Construction	End of 2017



The Hybrid Power Station of Ikaria consists of:

- ❖ Two SHPP of 1,05 MW and 3,1 MW power capacity
- ❖ Wind farm of 2,7 MW power capacity
- ❖ Two water reservoirs of 80.000 m³ each
- ❖ Pump station of 12 pumps of 250 Kw each

Project Importance

- ✓ Evolutionary project all over Europe
- ✓ Efficient combination and exploitation of the overflow of the existing Pezi dam and storage of wind energy
- ✓ Annual CO₂ emissions savings of about 13.800 tons



Past PPCR activities in Albania

Implemented actions of SHPP Dpt of PPCR S.A until 2010

Between January 2009 and February 2010 PPCR implemented a number of site visits and meetings all over the country.

A number of potential sites were identified both for small and large Hydro Plants.

Since 2010 no further actions occurred.



Conclusions – proposals of SHPP Dept. of PPCR S.A.

Investments in HPPs or/and SHPPs in Albania are very advantageous due to the important hydraulic potential

Construction Cost is very low (until 2010) compared to the respective European Union ones



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