

Research Update:

Greek Public Power Corp. Affirmed At 'B+' On Capital Increase, HEDNO Stake Sale; Outlook Remains **Positive**

November 22, 2021

(Editor's Note: We republished this Research Update on Nov. 23, 2021, to clarify some of the operating data on PPC.)

Rating Action Overview

- Greek integrated power utility Public Power Corp. (PPC) completed a €1.35 billion capital increase early November, diluting the government's stake to 34.1% from 51% previously. We recognize the growing independence of PPC from the Greek state, although the latter retains a blocking minority share and continues to guarantee €1.4 billion of debt dedicated to distribution grid upgrade projects.
- The company also signed in September the sale of 49% of its distribution activities, HEDNO, to Macquarie for €1.3 billion. We view the partial disposal of regulated activities of HEDNO as increasing group complexity, with cash flow leakage. That said, we recognize the group's continued progress in reducing its business risk, which led us to revise our business risk assessment to "fair" from "weak".
- Thanks to these two transactions, the company is securing financing for its large capital expenditure (capex) plan that will rise to more than €2 billion in 2023 from €376 million in 2020. In the meantime, we expect a significant decrease in adjusted debt that will drive adjusted leverage below 3x on average over 2021-2023 from 5.9x in 2020.
- We therefore affirmed our long-term issuer credit rating on PPC at 'B+'.
- The positive outlook indicates that we could upgrade PPC within the next 6-12 months if the company delivers its plan and demonstrates solid operating performance, while maintaining consolidated adjusted funds from operations (FFO) to debt above 19% and debt to EBITDA below 5x. The positive outlook on PPC also mirrors the positive outlook on Greece.

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Rating Action Rationale

PPC's €1.35 billion capital increase demonstrates growing independence from the Greek state.

On Nov. 4, 2021, PPC closed a €1.35 billion capital increase, which is higher than our initial expectation of €750 million. Post-capital increase, the Greek state's stake in PPC will decline to 34.1% from 51% previously, with the private equity investor CVC now owning 10% of the company. We note the state participated in the capital increase, subscribing €100 million of shares to retain a blocking minority stake in PPC. While we observe reduced influence from the Greek state over the company's ongoing decisions and day-to-day management, the state maintains control over key strategic decisions for which a large majority vote is required. Based on the company's strategy being aligned with Greece's energy policy and the government's increased capacity to provide extraordinary support to PPC, we still view a moderately high likelihood of support to the company. Furthermore, the government continues to guarantee around €1.4 billion debt at HEDNO.

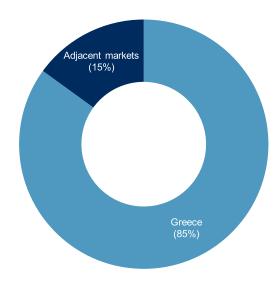
The €1.35 billion capital increase and the €1.275 billion sustainability-linked notes issuance in 2021 demonstrate PPC's ability to fund efficiently and at lower-cost on capital markets. The coupons for the 2021 issuances of €500 million and €775 million were at 3.375% and 3.875% respectively, enabling the company to refinance old bank debt at lower cost. The successful capital increase raised strong appetite from international investors with 3x oversubscription. This funding will support growing investment needs underlined in the updated strategic plan. We expect PPC to use the funds to finance stepped-up investments of €9.3 billion through 2026. The investment program will focus on renewables, digitalization of the network, and expansion in adjacent markets in southeastern Europe.

We expect the sale of 49% of the distribution activities of HEDNO will on one side boost deleveraging, on the other increase group complexity. On Oct. 20, 2021, PPC announced the sale of 49% of its distribution activities of HEDNO to Macquarie. The €1.3 billion proceeds will be used to finance capex and repay debt outstanding at PPC level, with €1.4 billion of debt that will be pushed down to HEDNO. Debt at HEDNO level will be contained by a shareholder agreement setting a 6x maximum leverage with fixed dividend distribution of about €80 million per year. We expect the HEDNO stake disposal, together with the €1.35 billion capital increase, will reduce PPC's adjusted debt to EBITDA to 3.4x in 2021 from 5.9x in 2020. The disposal of 49% of HEDNO also increases group complexity with the creation of a large minority. HEDNO represented about 40% of PPC's EBITDA in 2020. As a result, we have revised upward by 100 basis points our consolidated adjusted FFO to debt upside trigger for the company to 19%, to incorporate the large minority share within the group.

We perceive reduced execution risk on PPC's strategic plan with agreements signed on renewable expansion and advancement on the lignite phase-out plan. The key pillars of PPC's strategic plan cover the ramp up of renewables, with expansion outside Greece (notably in Romania and Bulgaria), and a rapid lignite phase-out program, as well as digitalization and customer centricity. Rapid transition of PPC's generation fleet from coal to renewable is a key driver of our improved assessment of the company business risk profile. We view positively the greening of PPC generation fleet and observe diminishing execution risks for this plan. Capex is due to increase from an average of less than €500 million per year over 2018-2020 to €1 billion in 2022 and above €2 billion in 2023 and 2024. We will closely monitor the company's plan execution and operating performance. To take into account execution risk in the company's plan and the relatively weaker business risk profile compared with peers at the same level, we apply a negative comparable ratings analysis modifier.

PPC is also accelerating its coal phase out program. Lignite generation will be reduced to 1.5 Terawatt hour (TWh) in 2024 from 5.7 TWh in 2020, with capacity down to 0.61 Gigawatts (GW) in 2024 compared with 3.36 GW of net capacity in 2019. The company has a target of 3.1 GW incremental renewable capacity in Greece by 2024 and a total of 9.5 GW renewable and storage capacity by 2026 (including 3.4 GW of hydro), largely concentrated in lower-risk mature technologies as solar, from 3.4 GW in 2021 (3.2 GW of hydro and 200 MW wind, small hydro, and solar). PPC plans to replace all its coal-fired thermal power plants by 2025 and eventually build solar power plants of a combined 3.4 GW in the country's two lignite hubs. To accelerate its growth in renewables, PPC recently agreed to form a joint venture with German power generation giant RWE aiming to build a 2 GW portfolio of renewables capacity in Greece. PPC owns 49% of the joint venture and we view this type of partnership as a low-risk approach to develop renewables at a fast pace, as PPC will not bear the initial construction risk on its balance sheet. The joint venture pipeline comprises the construction of nine solar power plants on the land where PPC used to operate its lignite mines. PPC will consolidate these assets only at commissioning date, by 2025, and solar plants will be funded under project-finance.

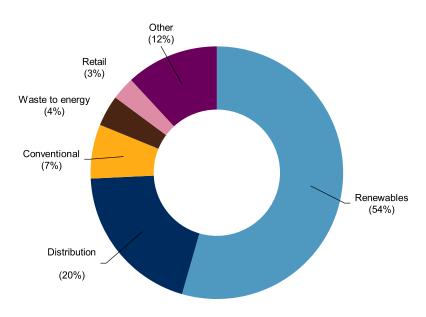
Public Power Corp 2022-2026 Capital Expenditure Breakdown By Geography



Total: €8.4 billion

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Public Power Corp 2022-2026 Capital Expenditure Breakdown
By Category



Total: €8.4 billion
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Until the ramp up of capex from 2023, we forecast PPC's credit metrics will have significant

rating headroom. Following PPC's capital increase, we consider the company has proven access to international capital markets and adequate ability to fund its large capex plan. As a result, we now net cash from debt for the calculation of our credit ratios. We project adjusted debt to EBITDA will be below 3x and FFO to debt about 30% on average over 2021-2023, above our revised upside trigger of 19% for an upgrade. However, we consider low leverage to be only temporary, with large negative free cash flows after capex from 2023. Given the improved credit metrics, we now assess PPC's financial risk profile as "aggressive" compared with "highly leveraged" previously. Following half-year 2021 results, we expect 2021 recurring EBITDA to reach the 2020 level. Vertical integration has helped the company counterbalance its higher wholesale costs, with higher margins in generation and the improvement in receivables collection. In our base case, EBITDA will move close to €1 billion starting from 2022, thanks to stable regulated activities, margin improvements in retail and the closure of loss-making lignite plants. We take into account net investments growing from €500 million in 2019 and €378 million in 2020 to more than €700 million in 2022 and €2 billion in 2023. We anticipate the €5.94 billion capex needs over 2022-2024 will be partially financed by operating cash flows, in addition to the €1.35 billion capital increase and half the proceeds from HEDNO sale, with the increase in debt contained at €1.5 billion additional gross debt in 2024 compared with €4 billion gross debt in 2020. The company has a clear financial policy with a publicly stated target of 3-3.5x reported net debt to EBITDA, with no dividend distribution

expected over 2021-2023, limiting the risk for a high rise in leverage post 2023.

Outlook

Our positive outlook on PPC reflects the continued improvement in the company's operations and financials, which could support an upgrade within the next 6-12 months. It also mirrors the positive outlook on Greece since improved economic prospects in the country have enhanced the government's capacity to provide PPC with timely extraordinary support.

Downside scenario

We could revise the outlook of PPC to stable if:

- We observed weak operating performance or delays in implementing its strategic plan, for example with the phase out of coal plants; and
- We took the same action on Greece or we observed less willingness and ability from Greece to support the company, for example if it sold its 34.1% share in PPC.

Upside scenario

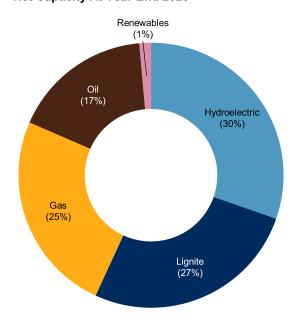
We could raise the long-term rating by one notch if:

- We revised up our assessment of PPC's stand-alone credit profile to 'bb-'. This would depend on consistent solid operating performance in all of its business lines. At the same time, PPC should maintain solid credit metrics, such as consolidated adjusted FFO to debt staying sustainably above 19% and debt to EBITDA below 5x, along with the successful delivery of its transformation plan without operating issues and demonstrated improvement of its business model: or
- We raised our rating on Greece to 'BB+', all other factors remaining unchanged.

Company Description

PPC is the largest electricity provider and producer in Greece and is fully integrated across the energy value chain. The company holds assets in lignite mines and power generation, distribution, and supply. PPC's power portfolio comprises conventional thermal and hydroelectric power plants, as well as renewable units, accounting for approximately 51% of the total installed capacity in the country in 2020. However, full implementation of European competition regulation for utilities entails a steep contraction of PPC's domestic market share, both in electricity supply and generation, to below 50% in the coming years from 95% in retail and 63% in generation in 2015.

Chart 3 Public Power Corp. -- Net Capacity At Year-End 2020



Total capacity: 10.55 Gigawatts.

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PPC had total generation of 21.3 TWh in 2020, with an average market share in the country of 46%. PPC is also Europe's second-largest producer of brown coal through the nine lignite mines it owns.

The company conducts its distribution activity through HEDNO (51% post-sale). Due to regulatory requirements, we understand HEDNO has independent operations and management. HEDNO operates in a regulated framework, which entitles PPC to a 6.7% return over 2021-2024 on the €3 billion regulatory asset base (as of 2020).

At year-end 2020, PPC had about six million customers, sold 32.9 TWh of electricity, and held an average market share of 66.8% in the interconnected system.

Our Base-Case Scenario

Assumptions

In our base-case scenario for 2021-2023, we assume:

- Real GDP growth in Greece of 7.2%, 5%, and 4.4% for 2021, 2022, and 2023, respectively, as the economy recovers from the pandemic-induced recession, which brought an 8.25% real GDP contraction in 2020.

- Slightly decreasing revenue going forward, with an expected reduction in energy sales of around 3%-4%. We expect the company will compensate with lower energy purchase and payroll costs and by charging higher revenue per client.
- Supply: Increased energy demand in Greece in 2021 and 2022, recovery from low point in 2020 due to the pandemic. We expect a steep contraction of PPC's domestic market share to about 60% by 2022.
- Generation: lignite plants phasing out rapidly with about 2.8 GW decommissioned over 2021-2023. The commissioning of the new power plant under construction, Ptolemaida V (660 MW) lignite-fired plant, is planned for 2022, but the plant will be transitioned to gas by 2025.
- Renewables capacity, including waste to energy, step up gradually from 3.4 GW in 2021 to almost 5 GW in 2024, with most of the additions taking place beyond 2024.
- Distribution: stable revenue from distribution network with the tariffs in place from April 2021.
- EBITDA to improve with notably higher margins on retail activities and other measures regarding customers (such as diminution of billing bonuses). Average of €1.0 billion-€1.1 billion EBITDA expected in 2021-2023.
- Controllable operating expenditure reduction year on year, based on cost efficiencies and digitalization, with adjusted EBITDA margin trending upward from around 20% in 2021 toward 25%.
- Neutral to negative working capital movements of zero to €100 million in 2021-2023, mainly due to delays in customer payments.
- Net capex of about €550 million in 2021, €1 billion in 2022, and €2.1 billion in 2023. Post 2021 and Ptolemaida V commissioning, on average, more than 70% of this capex will be destined to renewable generation building and regulated distribution activities.
- Cost of debt of around 2.7%-3% each year.
- Financial policy: no dividend distribution. We expect dividends to resume from 2024 with a dividend payout of 35% and then continue at a payout of 35%-55%.
- We assume €1,312 million proceeds coming from the 49% sale of HEDNO to Macquarie will be received by PPC in early 2022, with 50% of the proceeds used to repay outstanding debt in 2022.
- Our base case incorporates €1.35 billion cash inflow stemming from the capital increase and the new share offering which conducted in early November.

Key metrics

Table 1

Public Power Corporation S.A. Key Metrics*

_	Fiscal year ended Dec. 31							
(Mil. €)	2019a	2020a	2021f	2022f	2023f	2024f		
EBITDA	338	845	800-900	900-1,000	900-1,000	1100-1200		
Capital expenditure	503	378.2	500-600	750-850	2000-2100	2200-2300		
Debt**	4,756.90	5007.8	2900-3200	1800-2200	3200-3400	4600-4800		
Debt to EBITDA (x)	14.1	5.9	3-4	2-3	3-4	3-4		

Table 1

Public Power Corporation S.A. Key Metrics* (cont.)

--Fiscal year ended Dec. 31--

(Mil. €)	2019a	2020a	2021f	2022f	2023f	2024f
FFO to debt (%)	3	13.2	18-25	53-43	18-25	18-25

*All figures adjusted by S&P Global Ratings. **Cash netted from 2021. 2020 year-end debt consists of net financial debt of €4,069 million with key adjustments being €66 million in leases, €157 million in pensions, €326 million in asset retirement obligations, €254 million in litigation and €135 million of securitization debt, a--Actual, f--Forecast, FFO-Funds from operations

Liquidity

We assess PPC's liquidity as adequate, since we expect liquidity sources to exceed uses by more than 1.2x in the next 12 months and the company demonstrated strong access to capital markets, international investors, and private equity. Liquidity is largely improved thanks to the €1.275 billion total bond issuance (€650 million on March 8, 2021, followed by a tap issuance of €125 million on March 22, 2021 and €500 million issued on July 21, 2021) and the €1.35 billion capital increase.

We expect principal liquidity sources over the 12 months from Sept. 30, 2021, will include:

- €240 million of available committed credit lines, including €100 million from the European Investment Bank (EIB) €330 million facility; we do not consider factoring transactions under sources of liquidity;
- About €870 million in cash available;
- €1.35 billion from the share capital increase closed in November 2021;
- €1.3 billion proceeds from HEDNO partial sale to be received on first half 2022; and
- Operating cash flow before working capital of €620 million.

We expect principal liquidity uses over the same period will include:

- Debt maturities and early repayment of about €1.1 billion;
- Working capital outflow of about €80 million;
- Contracted capex of €700 million; and
- Dividends to minorities of about €20 million.

Issue Ratings--Subordination Risk Analysis

Capital structure

We note that, together with the sale of HEDNO, the debt dedicated to distribution network projects at PPC level (€1.4 billion) will be pushed down to the HEDNO level. This consists of €1,256 of EIB loans and the €160 million Black Sea Trade Development Bank loan, both of which are unsecured and are guaranteed by the Greek state. According to our estimates, the priority debt ratio will increase to 45%, still below our 50% threshold, but a material increase compared with the 3% as

of Dec. 31, 2020.

Analytical conclusions

The 'B+' issue rating on the €775 million and €500 million senior unsecured notes and remaining €1.036 billion syndicated loans with Greek banks is in line with the long-term issuer credit rating on PPC. This is because we do not consider the debt to be structurally subordinated, since more than 50% of the company's €4 billion debt is issued at the PPC level.

Ratings Score Snapshot

Issuer Credit Rating: B+/Positive/--

Business risk: Fair

- Country risk: Moderately high risk
- Industry risk: Intermediate risk
- Competitive position: Fair

Financial risk: Aggressive

- Cash flow/Leverage: Aggressive (standard volatility table)

Anchor: bb-

Modifiers

- Diversification/Portfolio effect: Neutral (no impact)
- Capital structure: Neutral (no impact)
- Financial policy: Neutral (no impact)
- Liquidity: Adequate (no impact)
- Management and governance: Fair (no impact)
- Comparable rating analysis: Negative (-1 notch)

Stand-alone credit profile: b+

- Related government rating: BB
- Likelihood of government support: Moderately high (no impact)

Related Criteria

- General Criteria: Environmental, Social, And Governance Principles In Credit Ratings, Oct. 10,
- Criteria | Corporates | General: Corporate Methodology: Ratios And Adjustments, April 1, 2019
- Criteria | Corporates | General: Reflecting Subordination Risk In Corporate Issue Ratings, March 28, 2018
- General Criteria: Rating Government-Related Entities: Methodology And Assumptions, March

25, 2015

- Criteria | Corporates | General: Methodology And Assumptions: Liquidity Descriptors For Global Corporate Issuers, Dec. 16, 2014
- Criteria | Corporates | Industrials: Key Credit Factors For The Unregulated Power And Gas Industry, March 28, 2014
- General Criteria: Country Risk Assessment Methodology And Assumptions, Nov. 19, 2013
- General Criteria: Methodology: Industry Risk, Nov. 19, 2013
- Criteria | Corporates | Utilities: Key Credit Factors For The Regulated Utilities Industry, Nov. 19, 2013
- Criteria | Corporates | General: Corporate Methodology, Nov. 19, 2013
- General Criteria: Methodology: Management And Governance Credit Factors For Corporate Entities, Nov. 13, 2012
- General Criteria: Principles Of Credit Ratings, Feb. 16, 2011
- General Criteria: Stand-Alone Credit Profiles: One Component Of A Rating, Oct. 1, 2010

Related Research

- Greece, Oct. 25, 2021
- September 2021 Update Explains What The Energy Transition Means For European Power Prices And Producers, Sept. 17, 2021
- Greek Public Power Corp. Upgraded To 'B+' On Better Business Fundamentals, Government Support, Metrics; Outlook Positive, June 25, 2021
- Greece-Based Public Power Corp. S.A. Outlook Revised To Positive On Similar Action On Sovereign; 'B' Ratings Affirmed, April 29, 2021
- Greece Upgraded To 'BB' On Improved Governance Effectiveness; Outlook Positive, April 23, 2021
- Greek Utility Public Power Corp. S.A.'s Proposed €500 Million Senior Unsecured Notes Rated 'B'. March 8, 2021
- Bulletin: Potential Sale Of 49% Of PPC's Regulated Distribution Activities Would Support Deleveraging And Capex Plan, Dec. 17, 2020
- Greek Utility Public Power Corp. S.A. Upgraded To 'B' On New Strategy And Improved Credit Metrics; Outlook Stable, Nov. 27, 2020

Ratings List

Ratings Affirmed

Public Power Corp. S.A.						
Issuer Credit Rating	B+/Positive/					
Senior Unsecured	B+					

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. A description of each of S&P Global Ratings' rating categories is contained in "S&P Global Ratings Definitions" at https://www.standardandpoors.com/en_US/web/guest/article/-/view/sourceld/504352 Complete ratings information is available to subscribers of RatingsDirect at www.capitaliq.com. All ratings affected by this rating $action\ can\ be\ found\ on\ S\&P\ Global\ Ratings'\ public\ website\ at\ www.standardandpoors.com.\ Use\ the\ Ratings\ search$ $box\ located\ in\ the\ left\ column.\ Alternatively,\ call\ one\ of\ the\ following\ S\&P\ Global\ Ratings\ numbers:\ Client\ Support\ Su$ Europe (44) 20-7176-7176; London Press Office (44) 20-7176-3605; Paris (33) 1-4420-6708; Frankfurt (49) 69-33-999-225; Stockholm (46) 8-440-5914; or Moscow 7 (495) 783-4009.

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