



Public  
Power  
Corporation

# **Public Power Corporation (“PPC”) Sustainability-Linked Bond Framework**

**June 2021**





## 1. Introduction

### 1.1 Background

Public Power Corporation (“PPC”) was established in 1950 having as purpose to generate, transmit and distribute electricity throughout the Greek territory. PPC’s headquarter is situated in Athens, Greece. PPC is Greece’s largest electricity generator and the principal supplier of electricity in Greece. PPC is changing in the direction of the energy transformation that is taking place worldwide in the industry, in order to play a leading role again in the Greek market and Southeast Europe.

The installed capacity of PPC’s power plants is 11 GW<sup>1</sup> (Dec-2020) and accounts for approximately 51% of the installed capacity of power stations in Greece. PPC is the first company in Greece to install Renewable Energy Sources (RES, in 1982), and is active through its subsidiary company “PPC Renewables S.A.” (PPCR), with a portfolio of wind farms, small scale hydroelectric plants and photovoltaics.

### 1.2 PPC’ s commitment to sustainability

PPC, being sensitive to the Greek society request for dealing with the Climate Change and for a better Environment, has set as primary priority its protection through the realization of important investments in energy for productive modernization and development.

For PPC, the protection of the Environment constitutes main priority. The Corporation takes all appropriate measures and implements fully the EU and national environmental legislation aiming at the reduction of the environmental footprint from its activities, that is, the minimization of the environmental impact from its activities to the Environment in the areas where lignite mines and power generation plants are operating. Apart from the obligations derived from environmental legislation PPC realizes projects and initiatives which contribute positively to the protection of the Environment.

#### **PPC’s Sustainable Development Policy:**

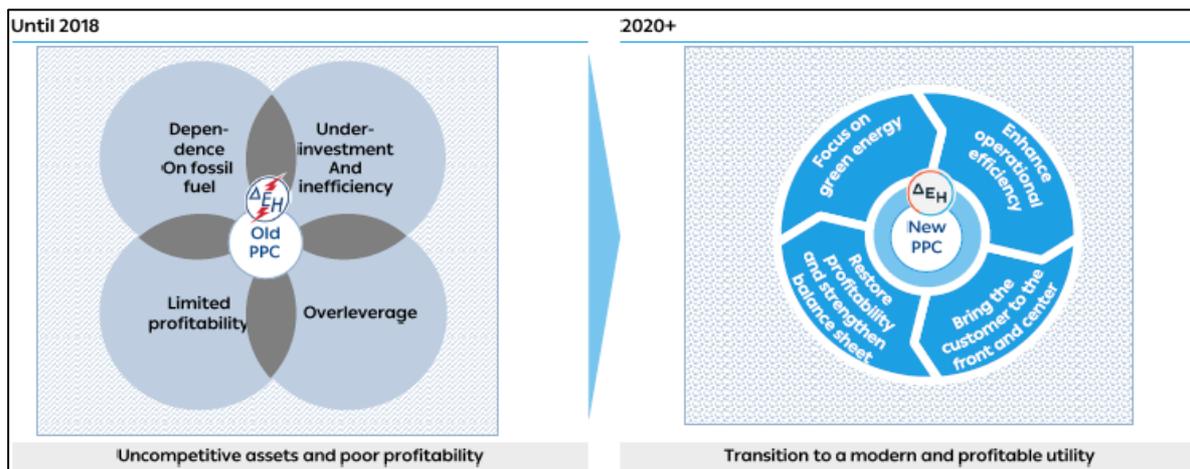
PPC operates under the strategic approach of "Creating Shared Value", that is, the creation and measurement (total value) of shared value between the business, society, and the environment. This will arise from the ongoing transformation of the company’s value chain and operations, and the configuration of a new corporate culture, guided by the principles of Sustainable Development and the circular economy, wherever these can be applied.

That is why PPC’s approach to Sustainable Development is in full accordance with the company’s business model and its transformation needs, investing in integrated, innovative and high-quality services and products, shaping a better working environment and mutually beneficial relationships with all stakeholders, whilst ensuring alignment with the principles of Economic Growth (Profit), Environmental Welfare (Planet) and Social Welfare (People).

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<sup>1</sup> <https://www.dei.gr/en/i-dei/enimerwsi-ependutwn>

Transformation of PPC Business Model



PPC's environmental strategy has been in line with the European Union's and Greece's ambitious medium and long-term objectives for climate neutrality by 2050. For the implementation of its strategy, the Corporation has established and updated its Business Plan, the implementation of which is assigned to the organizational units having also as an object the management of the environment. For achieving constant environmental performance, PPC develops Environmental Management Systems and proceeds to the certification of its installations.

**PPC's Environmental Strategy guidelines are the following<sup>2</sup>:**

1. **Dealing with climate change:** PPC follows an integrated strategy for the reduction of carbon dioxide CO<sub>2</sub> emissions contributing constantly to the achievement of the national goals for the reduction of greenhouse gas emissions and climate change mitigation.
2. **Renewable Energy Sources (RES):** PPC aims to expand RES as the new dominant energy generation technology. PPC aims to increase its RES capacity by 1.3GW in incremental RES capacity by 2023, out of >6GW pipeline.
3. **The protection of the atmosphere, water systems, ground, biodiversity in areas where lignite mines and power generation plants are operating.**
4. **Waste management according to the environmental legislation in force.**
5. **Innovations:** PPC Group through PPCR develops innovative solutions in alternative power generation fields such as hybrid systems and biomass. The Ikaria Hybrid Power Plant is constructed by PPCR.
6. Apart from the obligations deriving from the National Legislation, PPC participates also in initiatives and research programs undertaken voluntarily and also implements relevant actions. The following are mentioned indicatively:
  - PPC has signed the EURELECTRIC Declaration on climate change.
  - PPC has signed "Seal the Deal" UN Campaign.
  - PPC is member of WORLD BUSINESS COUNCIL FOR SUSTAINABLE DEVELOPMENT, WBCSD, which expresses globally position of Corporations on aspects of Sustainable Development. Within the framework of WBCSD, it participates in the WG Electric Utility for

<sup>2</sup> PPC's Environmental Strategy – <https://www.dei.gr/en/i-dei/perivallon/perivallontiki-stratigiki>

issues relative to energy efficiency and smart grids and in WG Water for issues relative to water management.

- PPC participates in EURELECTRIC ENERGY WISDOM Programme so as to promote actions referring to the improvement of energy efficiency and the reduction of CO2 emissions contributing to the medium-term and long-term EU goals for energy and environment.
- PPC participates in GREEN e-motion of European Green Cars Initiative EGCI.
- PPC submitted an action plan to improve energy efficiency in two corporately owned commercial buildings used as customer service points within the European “Green Building” Program for energy efficiency and certification of buildings.

### PPC’s contribution to its 6 major sustainable development goals

Goals	PPC’s Activity	Goals	PPC’s Activity
<b>6 CLEAN WATER AND SANITATION</b> 	<ul style="list-style-type: none"> <li>• The company significantly contributes in the sustainable management of its water resources while at the same time proceeds with the recycling and reuse of significant amounts of water from its activities</li> </ul>	<b>12 RESPONSIBLE CONSUMPTION AND PRODUCTION</b> 	<ul style="list-style-type: none"> <li>• PPC informs its customers on the responsibilities and safe use of energy</li> <li>• Responsible generation and consumption, is part of PPC’s sustainable operation</li> </ul>
<b>7 AFFORDABLE AND CLEAN ENERGY</b> 	<ul style="list-style-type: none"> <li>• As the largest electricity suppliers in Greece, PPC strives to provide access to reliable and modern energy to all of its clients. The company invests in the growth of renewable energy sources, setting the stepping stone for a future that will rely on sustainable and environmental friendly energy sources</li> </ul>	<b>13 CLIMATE ACTION</b> 	<ul style="list-style-type: none"> <li>• PPC actively contributes to the mitigation of climate change and its impacts</li> </ul>
<b>8 DECENT WORK AND ECONOMIC GROWTH</b> 	<ul style="list-style-type: none"> <li>• PPC promotes continuous, sustainable and inclusive economic development. It promotes full, productive and respectful employment for all. PPC follows specific practices, that ensure its value chain adheres to fair working practices</li> <li>• The company is committed to ensuring a safe working environment both internally as well as externally for the various contractors</li> </ul>	<b>15 LIFE ON LAND</b> 	<ul style="list-style-type: none"> <li>• PPC has developed a specific policy for the conservation of biodiversity and natural habitat, by applying the best pollution abatement technologies and proceeding with systematic land restoration projects through reforestation and other similar actions</li> </ul>

Value chain: Supplier/Contractors      Operations      Service and product use

▲ Maximising positive impact      ▼ Minimising negative impact

### 1.3 Environmental Assessment at PPC

#### PPC’s Certification on the Environmental Management Systems<sup>3</sup>

Aiming at constant improvement of environmental impact, PPC applies Environmental Management Systems in its generation facilities. Until today, PPC has received Certification for Environmental Management Systems according to ISO 14001:2015 in the Lignite Center of West Macedonia, in all operated thermal power plants of the Interconnected System, in all thermal power plants of Crete, Soronis Rodou and almost in all hydroelectric power plants of the Interconnected System. Two (2) Steam Electric Stations (SES), namely SES Melitis and SES Megalopolis, are properties of PPC fully owned subsidiaries Lignitiki Melitis S.A. and Lignitiki Megalopolis S.A., respectively, were re-certificated by independent Certification Bodies, after surveillance audits.

During 2020, towards the improvement of the environmental behavior:

<sup>3</sup> <https://www.dei.gr/en/i-dei/perivallon/perivallontiki-stratigiki/perivallontiki-organwsi>

- The Autonomous Power Stations of Chios, Kos, Karpathos, Samos and Lemnos were successfully certified their Environmental Management Systems (EMS) according to ISO 14001:2015.
- The process for a new EMS according to ISO 14001:2015 for SES South Rhodes (SES Kattavia) continued.
- A new EMS according to ISO 14001:2015 is under development for HPS N. Plastira. In 2012, PPC received the first award in the category of Management for Sustainable Development of the “Greek Business Awards for the Environment” of the European Commission for PPC’s environmental performance in the Development, Application and Certification according to ISO 14001:2004, of Environmental Management Systems in its Thermal and Hydroelectric Power Plants.

## 2. PPC Sustainability–Linked Bond Framework

At PPC we are committed to integrate sustainability across our businesses. In order to demonstrate our sustainability commitments and to link concretely the objectives by PPC, we have chosen to create a sustainability-linked bond (Sustainability-Linked Bonds or SLB) framework in accordance with the ICMA’s Sustainability-Linked Principles (SLBP) 2020<sup>4</sup>.

The following five components form the basis of PPC’ s SLB framework:

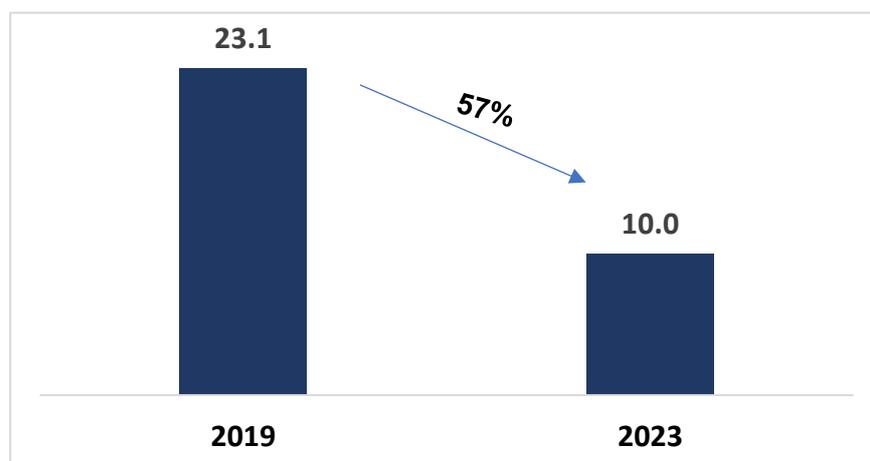
- Selection of key performance indicators (KPIs);
- Calibration of sustainability performance targets (SPTs);
- Specific bond characteristics;
- Reporting on the above, and
- Independent verification of the components listed in points A-D of the SLB Framework.

### A) Selection of Key performance indicators

PPC has selected the following KPI, which will measure the future sustainability improvement of the PPC.

Carbon footprint emissions

- **KPI:** Reduce scope 1 CO2 emissions (measured in mtons)



<sup>4</sup> ICMA SLBP 2020 : <https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/June-2020/Sustainability-Linked-Bond-PrinciplesJune-2020-100620.pdf>



Scope 1 emissions includes emissions from fuel consumption of thermal power plants (Scope 1 direct emissions as per the GHG Protocol Initiative terminology) as well as indirect emissions (Scope 2) only from self-consumption by PPC thermal power plants.

PPC actively contributes to the mitigation of climate change and its impacts. The modernization of PPC's generation capacity, the promotion of RES, as well as energy conservation constitute the founding pillars

of the Company's strategy for the reduction of the greenhouse gas emissions. At the same time, it ensures that its generation practices adapt to the new climate change conditions. The first step of PPC's Environmental Impact Assessments, that are carried out for its projects, is to examine the projects' resilience to potential temperature increases and extreme weather events, according to Environmental Impact Assessment Directive.

## B) Calibration of Sustainability Performance Target (SPT)

- **SPT:** Reduction in PPC's scope 1 CO<sub>2</sub> emissions by 57% by 2023 from 2019 base year

### Historical carbon footprint:

<i>(in Mtons CO<sub>2</sub>)</i>	2017	2018	2019	2020
Scope 1	31.79	29.57	23.15	15.53
Scope 2	<i>Included in Scope 1 – please see note 3 below</i>			
Scope 3	--	--	--	--
<b>Total</b>	<b>31.79</b>	<b>29.57</b>	<b>23.15</b>	<b>15.53</b>
<b>Average CO<sub>2</sub> emission factor (tCO<sub>2</sub> / MWh)</b>	<b>1.10</b>	<b>1.14</b>	<b>1.06</b>	<b>0.86</b>

1. Calculations account for CO<sub>2</sub>.
2. **Scope 1 emissions:** Currently includes emissions from fuel consumption of thermal power plants (Scope 1 direct emissions as per the GHG Protocol Initiative terminology). Although (see note 6) PPC plans to further explore reporting emissions from other Scope 1 categories in the future (i.e emissions from fuel consumption in buildings and vehicles) KPI refers to the current categories only.
3. **Scope 2 emissions:** Indirect emissions (Scope 2) from electricity consumption at PPC (includes only emissions derived from the self-consumption by thermal power plants) are included in the Company's direct emissions (Scope 1).
4. **Scope 3 emissions:** See note 6.
5. The emissions mentioned in the table include also the emissions of the subsidiaries Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A.
6. PPC plans to further explore reporting emissions from other Scope 1, 2 and emission categories from scope 3 as well, from 2020 onwards.
7. Represents average CO<sub>2</sub> emission factor of PPC and its subsidiaries (Lignitiki Megalopolis S.A. and Lignitiki Melitis S.A.)

Year-on-year PPC reduced its Scope 1 emissions by 7% in 2018, 22% in 2019 and 33% in 2020.

### Alignment with national targets:

The Greek government intends to use the National Energy and Climate Plan (NECP) as the key tool for developing its national energy and climate policy for the following decade (2020-2030), taking into account the European Commission's recommendations and the UN Sustainable Development Goals (SDGs).



Greece stand out as one of the EU Member States that have adopted ambitious climate objectives, committing to reduce greenhouse gas (GHG) emissions in the EU ETS sector by 62% by 2022, 65% by 2025 and 74% by 2030 compared to emissions in 2005<sup>5</sup>. These national targets are also a prerequisite for making possible the transition to a climate neutral economy by 2050, as the Greek government aims to participate on a pro rata basis in the commitment for a climate neutral economy at an EU level.

The SPT set in this Framework, reducing PPC's emissions by 57% from 2019 to 2023 is in line with PPC's target to reduce emissions by 40% from 2019 to 2022 and by 74% from 2005 to 2022. These targets are very ambitious compared to these targets set by the Greek Government under its NECP.

Table: Evolution of the reduction in Greece's national GHG emissions for 2030<sup>6</sup>

<b>Evolution of the reduction in GHG emissions (% reduction)</b>	<b>2020</b>	<b>2022</b>	<b>2025</b>	<b>2027</b>	<b>2030</b>
Reduction in emissions for ETS sectors and uses compared to 2005	52%	62%	65%	67%	74%
Reduction in emissions for non-ETS sectors compared to 2005	30%	31%	33%	34%	36%
Total reduction in GHG emissions compared to 2005	41%	47%	50%	52%	56%
<b>Total reduction in GHG emissions compared to 1990</b>	<b>23%</b>	<b>31%</b>	<b>34%</b>	<b>36%</b>	<b>43%</b>

For 2022 the Greek NECP targets a 62% reduction of CO<sub>2</sub> emissions in the EU ETS sector (where electricity generation is by far the largest emitter) compared to the base-year 2005. PPC's emissions in 2005 were 52.6 mln tons, in 2019 they were 23.1 mln tons (56% reduction compared to 2005) and in 2022 they are envisaged to be 13.9 mln tons (74% reduction compared to 2005), overshooting the relevant National Target of 62% and actually reaching the National Target of 2030. Further reduction of CO<sub>2</sub> emissions will be achieved until 2030 by the total abolition of lignite-fired generation and by the interconnection of most of the Aegean islands with the mainland electricity system, as planned by the NECP.

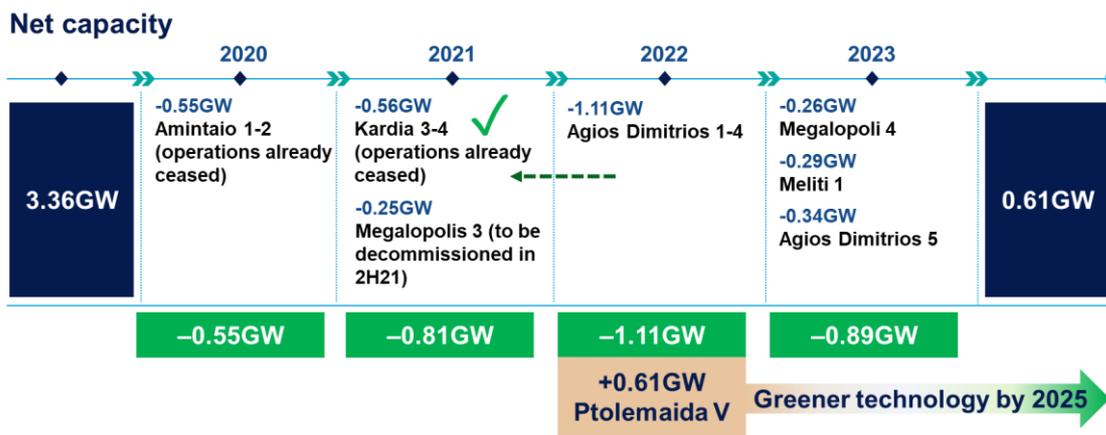
#### **Key steps being taken to reduce our emissions:**

Through substantial efforts in phasing out our existing lignite plants and investing in Renewable Energy Sources (RES) we aim to achieve this target:

1. **Phase out of existing lignite plants by 2023** – more ambitious than the target set by Greece government in NECP to putting a complete end to the use of lignite for power generation in Greece by 2028.

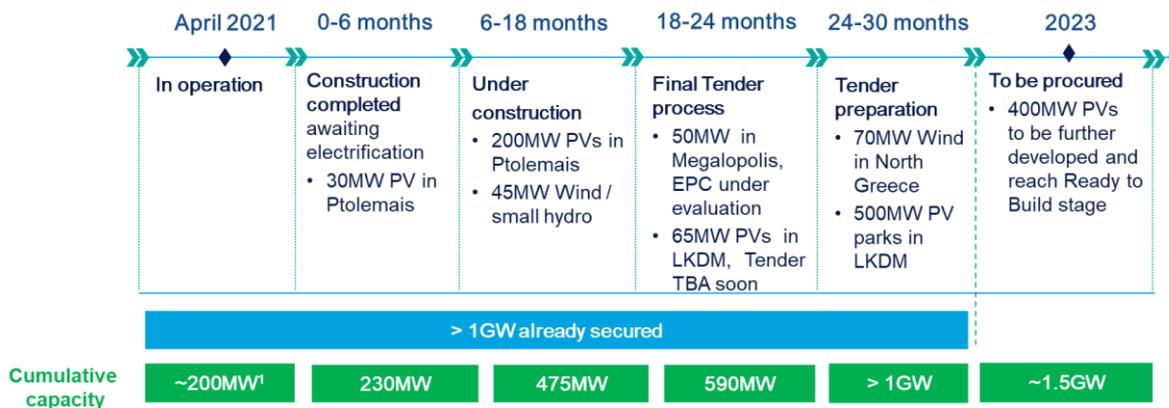
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<sup>6</sup> [https://ec.europa.eu/energy/sites/ener/files/el\\_final\\_necp\\_main\\_en.pdf](https://ec.europa.eu/energy/sites/ener/files/el_final_necp_main_en.pdf)



## 2. Focus on RES

- Redeploy capital in RES to shift generation mix towards sustainable sources and stable profitability while supporting the country's energy needs
- 1.3GW in incremental RES capacity by 2023, out of >7GW pipeline



(1) Including PPC's participation in JVs of c. 63MW as of April 2021

PPC's environmental strategy has been in line with the European Union's and Greece's ambitious medium and long-term objectives for climate neutrality by 2050.

### C) Bond Characteristics

For the avoidance of doubt, unless otherwise stated, the proceeds of any Sustainability-Linked Bond(s) will be used for general corporate purposes. The perimeter of the KPI or calibration of the SPT may change if there is a material change to PPC's business. Any such change will be communicated within the annual reporting.

On the target observation date, which will be 31 Dec 2023, PPC will observe the performance of the KPI against the SPT.



On the notification date (which will be provided in the bond documentation), PPC will notify if it has attained the SPT, in which case there will be no impact on the coupon. The KPI and SPT will be verified by an external auditor.

If PPC is unable to achieve the SPT, interest rate will increase by 50bps from the next coupon date, as stated in the legal documentation relating to the Sustainability-Linked Bonds.

Where relevant, PPC may include potential exceptional events that could substantially impact the calculation of the KPI and SPT in the legal documentation of the sustainability-linked bond(s).

#### D) Reporting

PPC will provide information on its scope 1 emissions, measured regularly through our annual Sustainable Development Report. This reporting is provided on an annual basis.

PPC will also provide a verification assurance report relative to the SPT outlining the performance against the SPTs and the related impact, and timing of such impact, on the bond's financial and/or structural characteristics.

The reporting will also include information relevant for monitoring the progress of the SPT.

#### E) Verification

PPC's performance of the KPI defined above at the relevant performance date will be verified by the Group's external auditor to a reasonable level of assurance prior to the relevant publication date of the KPIs.

In an effort to enhance the quality of PPC's sustainability disclosures and strengthen its credibility, PPC will also seek assurance from its existing auditor over the performance against target, in the CSR reporting periods leading up to 2023.

PPC's Sustainability-Linked Bond Framework has been reviewed by Sustainalytics who provided a second party opinion, confirming the alignment with the ICMA's Sustainability-Linked Bond Principles (SLBP).

### 3. Amendments to this Framework

The Treasury team will review this Framework on a regular basis, including its alignment to updated versions of the GBP/SLBP as and when they are released, with the aim of adhering to best practices in the market. PPC will also review this Framework in case of material changes in the perimeter, methodology, and/or the SPT's calibration. Such review may result in this Framework being updated and amended. The updates, if not minor in nature, will be subject to the prior approval of PPC and Sustainalytics. Any future updated version of this Framework that may exist will either keep or improve the current levels of transparency and reporting disclosures, including the corresponding review by an External Reviewer. The updated Framework, if any, will be published on PPC website and will replace this Framework.

### 4. Disclaimer

This Sustainability-Linked Financing Framework (the "Framework") contains certain forward-looking statements that reflect the PPC's management's current views with respect to future events and financial and operational performance of the PPC Group. These forward-looking statements are based on PPC's current expectations and projections about future events. Because these forward-looking



statements are subject to risks and uncertainties, actual future results or performance may differ materially from those expressed in or implied by these statements due to any number of different factors, many of which are beyond the ability of PPC to control or estimate precisely. You are cautioned not to place undue reliance on the forward-looking statements (as well as information and opinions) contained herein, which are made only as of the date of this document and are subject to change without notice. PPC does not undertake any obligation or responsibility to release any updates or revisions to any forward-looking statements and/or information to reflect events or circumstances after the date of publication of this Framework. The information contained in this Framework does not purport to be comprehensive and, unless differently specified in this Framework, has not been independently verified by any independent third party.

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As of this date, PPC believes that its Framework is aligned with ICMA's Sustainability-Linked Principles (SLBP) 2020. A withdrawal of the Second Party Opinion may affect the value of any securities issued by PPC and/or may have consequences for certain investors with portfolio mandates to invest in "sustainable" or "green" assets. Under no circumstances will PPC or its affiliates, representatives, directors, officers and employees have any liability whatsoever (in negligence or otherwise) for any loss or damage howsoever arising from any use of this document or its contents or otherwise arising in connection with the document or the above mentioned presentation.