PacificLight

PacificLight Power's

Sustainable and Transition Finance Framework

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1. Introduction to PacificLight Power

1.1 About PacificLight Power

PacificLight Power ("PLP") is a leading electricity generator in Singapore, operating a state-of-the-art 830MW combined-cycle gas turbine ("CCGT") power plant on Jurong Island. As one of the most efficient fossil-fuel-based generators in the country, PLP plays a critical role in supporting Singapore's energy reliability while contributing to the national decarbonisation agenda. The CCGT utilizes natural gas as its primary energy source and incorporates advanced technologies to optimize thermal efficiency and reduce greenhouse gas emissions.

In addition, PLP has two fast start generation units with capacity totaling 100 MW to bolster the reliability and security of Singapore's power system with the potential to switch to using hydrogen instead of natural gas in the future. Besides energy generation, PLP is a trusted electricity retailer that has been delivering reliable, sustainable energy to Singapore consumers since 2013 through its subsidiary, PacificLight Energy Pte Ltd ("PLE"). With sustainability embedded at the core of our strategy, we are committed to long-term value creation by integrating environmental responsibility into every facet of our operations. Details on PLP's sustainability governance and performance can be found in our Sustainability Report.

PLP benefits from the joint expertise from both of its shareholders, First Pacific Company Ltd and MERALCO PowerGen Corporation, demonstrating PLP's extensive experience in providing competitive power solutions to both business and homeowners.

1.2 Climate Transition Strategy and Targets

PLP is committed to achieving net zero emissions by 2050, in line with Singapore's national climate ambition. This long-term goal reflects PLP's dedication to support the nation's energy transition and building a resilient, low-carbon future, and supports long-term value creation through responsible resource management and risk mitigation.

PLP adopts a strategic and disciplined approach to sustainability, positioning itself as a key enabler of Singapore's low-carbon energy future. The company integrates ESG considerations into its investment and operational decisions, with a strong emphasis on carbon intensity reduction, energy efficiency, and innovation in clean energy technologies.

Using 2024 as the baseline, PLP has established a set of science-informed targets derived from fuel transition potential and renewable energy integration opportunities. PLP aspires to reduce portfolio emissions intensity by around 6% by 2030 and 15% by 2035 as interim milestones, with a long-term aspiration of achieving net zero by 2050. We recognise that this trajectory is contingent on technological readiness, supportive policy frameworks and infrastructure development in Singapore and the region. We will

review our targets periodically to reflect emerging guidance, regulatory requirements and market developments.

PLP's climate transition strategy focuses on three key pillars:

- Decarbonising power generation assets through improved efficiency
- Enabling renewable energy integration
- Pursuing technological innovation aligned with net zero pathways

Decarbonising power generation assets through improved efficiency

As part of PLP's ongoing decarbonisation efforts, in 2024, PLP successfully completed the Advanced Turbine Efficiency Package (ATEP) in collaboration with Siemens Energy. This upgrade improved thermal efficiency and marked the first gas-fired power plant in Singapore to exceed 60% efficiency, which translates to a reduction in carbon emissions of over 60,000 tonnes annually.

PLP is also conducting internal analysis to assess the emissions reduction potential of the high-efficiency H-class CCGT, further advancing its efforts to optimise asset performance.

Enabling renewable energy integration

PLP recognises that integrating renewable energy into the grid is essential for achieving a low-carbon power system. To support this transition, PLP is exploring the deployment of a Battery Energy Storage System, which will play a critical role in enhancing grid flexibility and reliability. Initiatives include:

- Through its related managed entity, Pacific Medco Solar Energy Pte Ltd (PMSE) has been awarded a Conditional Licence by the Energy to import 600MW of renewable energy from Bulan Island, Indonesia, using solar photovoltaics (PV) and a large-scale Battery Energy Storage System (BESS).

- PLP has partnered with Univers to design, build and operate Singapore's first district-level smart grid in JTC's Punggol Digital District. This project entails solar PV and BESS, integrating AI and IoT into a smart grid with real-time management for grid resilience. The project is scheduled to be implemented in 2026.

- In 2025, PLE signed a Memorandum of Understanding with Bridge Data Centres to facilitate the joint exploration of advanced energy solutions, including the deployment of rooftop solar PV systems, hydrogen fuel cells and on-site battery storage, accelerating the transition to clean energy for Singapore's digital infrastructure.

Pursuing technological innovation aligned with net zero pathways

PLP is actively exploring the future use of low-carbon fuels such as hydrogen. While PLP is firmly committed to its long-term aspiration of achieving net zero, it acknowledges that progress is contingent on several external factors, including technological advancements and economic viability of low-carbon technologies such as hydrogen and carbon capture, utilisation and storage (CCUS), as well as effective

international collaborations in areas such as carbon credits and renewable energy imports.

To help shape these enabling conditions, PLP actively participates in the research and development of new technologies and engages with industry partners to accelerate the deployment of emerging technologies. As a first step, PLP's upcoming 670MW CCGT, that is under development and expected to be completed in 2029, will be hydrogen-ready, demonstrating PLP's commitment to aligning with Singapore's decarbonisation commitments and reaching net zero. Other key initiatives include:

- PLE has entered into an agreement with Google and RExus Bioenergy to develop a 13.2MW Wood Waste-to-Energy (WWtE) plant, which encompasses first-of-its-kind advanced biomass processing technologies and an integrated pilot-scale carbon capture system. The plant is expected to begin commercial operations in 2026, and will operate on a 24/7 basis, thereby providing reliable and sustainable energy supply for Google's data centres and operations in Singapore.

- PLP is conducting a CCS feasibility study to examine potential power sector CCS solutions as part of Singapore's energy transition towards a low-carbon future.

1.3 Rationale for Sustainable and Transition Finance Framework

PLP, its subsidiaries, and related entities under its management ("PLP Group") are committed to supporting Singapore's transition to a low-carbon economy by embedding sustainability into every facet of our operations and strategic planning. As a key player in the energy sector, PLP recognizes the critical role we play in driving environmental stewardship, social responsibility, and economic resilience.

To reinforce this commitment, we are establishing a Sustainable and Transition Finance Framework ("Framework") that will guide the issuance of Green, Transition and/or Social loans or bonds ("SF Transaction(s)") that entities within the PLP Group may enter into in the future. The Framework covers and outlines the criteria and guidelines for PLP Group to allocate and manage the proceeds raised from SF Transactions.

For the avoidance of doubt, the SF Transactions may be in any currency, tenor or with other terms and conditions including covenants, to reflect the financing strategy of PLP Group.

2. Sustainable and Transition Finance Framework

This Framework is prepared in line with the following principles (collectively, the "Principles") to ensure that the SF Transactions from PLP meet the market best practices:

- Green Loan Principles 2025 ("GLP") and Social Loan Principles 2025 ("SLP") published by the Loan Market Association, Asia Pacific Loan Market Association and Loans Syndications and Trading Association
- Green Bond Principles 2025 ("GBP"), Social Bond Principles 2025 ("SBP"), and Sustainability Bond Guidelines ("SBG") by the International Capital Market Association
- Guide to Transition Loans 2025 ("GTL") published by the Loan Market Association, Asia Pacific Loan Market Association and Loans Syndications and Trading Association
- Association for Southeast Asian Nations (ASEAN) Green Bond Standards 2018 ("AGBS"), ASEAN Social Bond Standards 2018 ("ASBS"), and ASEAN Sustainability Bond Standards 2018 ("ASBS") by the ASEAN Capital Markets Forum
- Climate Transition Finance Handbook 2025 ("CTFH") and Climate Transition Bond Guidelines 2025 ("CTBG") by the International Capital Market Association

Following the Principles, the Framework comprises four pillars:

1. Use of Proceeds
2. Process for Project Evaluation and Selection
3. Management of Proceeds
4. Reporting

2.1 Use of Proceeds

The SF Transaction proceeds shall be used to finance and/or re-finance in whole or in part, new or existing Eligible Green, Transition and/or Social Projects ("Eligible Projects").

The Eligibility Criteria for the Eligible Projects are defined in Sections 2.1.1, 2.1.2 and 2.1.3 respectively.

2.1.1 Eligible Green Projects

Where relevant and applicable, the Eligibility Criteria below has been developed with reference to the Singapore-Asia Taxonomy December 2023 issued by the Green Finance Industry Taskforce convened by the Monetary Authority of Singapore.

Eligible Green Project Category	Eligible Green Project Sub-Category	Eligibility Criteria	Relevant Sustainable Development Goals (SDGs)
Energy	Electricity generation using solar PV and CSP	All energy generation activities from solar PV and solar CSP are directly eligible	
	Electricity generation from bioenergy power	Bioenergy power generation that complies with all of the criteria is eligible • Emission intensity measured during the lifecycle of the power plant is less than 100gCO2e/kWh, and • Bioenergy produced from waste (e.g., agriculture, municipal sources) are eligible, or • Feedstock used for production of bioenergy should comply with one of the following standards: ○ Forest Stewardship Council (FSC) ○ Biomass Biofuels voluntary scheme (2BSvs) ○ Bonsucro (Better Sugarcane Initiative) ○ Roundtable of Sustainable Biomaterials (RSB) ○ Round Table on Responsible Soy (RTRS) ○ International Sustainability and Carbon Certification (ISCC and/or ISCC plus)	
	Electricity generation from fossil gaseous fuels	The activity meets the following criteria: • Lifecycle GHG emissions from the generation of electricity using fossil gaseous fuels are lower than 100gCO2e/kWh. • Lifecycle GHG emissions are calculated based on project-specific data, using ISO 14067:2018 or ISO 14064-1:2018. • Quantified lifecycle GHG emissions are verified by an independent third party.	
	Storage of electricity	The activity is the construction and operation of electricity storage including: • mechanical energy storage systems, or • thermal energy storage systems, or • pumped hydropower storage, or • electrochemical storage systems	
	Transmission and distribution of electricity	The activity complies with one of the following criteria: • Transmission and distribution infrastructure dedicated to a direct connection or an	

		expansion of connection between power plants with energy intensities less than 100gCO2e/kWh (lifecycle emissions) are directly eligible, or • Transmission and distribution infrastructure dedicated to an inter-country/region direct or grid connection to access existing or new power plants with energy intensities less than 100gCO2e/kWh (lifecycle emissions) are directly eligible, or • Transmission and distribution infrastructure that is on a decarbonisation trajectory where at least 67% of the newly connected generation capacity in the system is below the generation threshold value of 100gCO2e/kWh measured on a Product Carbon Footprint (PCF) basis, over a rolling five-year period; or the average system grid emissions factor is below the threshold value of 100gCO2e/kWh measured on a PCF basis, over a rolling five year average period. • Investments in new and existing infrastructure to improve energy efficiency and reduce network losses through the use of smart grid technologies and the installation of smart meters. All enabling ICT systems and smart management systems and those required for procurement of electricity that meet the green thresholds are eligible.	
Waste	Waste to Energy	The activity complies with all of the following criteria: • Residual or pre-sorted waste only, and • Plant efficiency ⩾25%, and • Bottom ash recovery with at least 75% recovery of metal from ash. This activity could take place in an off-site location. Note: R&D investments related to developing and testing new and emerging technologies are eligible. These include but are not limited to pyrolysis and gasification that can produce alternate and sustainable fuels or chemicals.	

Carbon Capture and Storage	Point-source capture of carbon dioxide	Point-source capture of carbon dioxide from electricity generation of fossil gaseous fuels to enable it to meet a lifecycle GHG emissions intensity of ≤100gCO2e/kWh, verified by an independent third party	
	Research, development, and innovation for CCS-related technologies, including direct air capture	The activity complies with one of the following criteria: • The activity researches, develops or provides innovation for technologies, products or other solutions that are dedicated to carbon capture, transportation and storage, • The implementation of the technologies, products or other solutions being researched for carbon capture, transportation and storage has the potential to result in overall net GHG emissions reductions once commercialised.	

2.1.2 Eligible Transition Projects

The Eligibility Criteria below has been developed with reference to the Singapore-Asia Taxonomy December 2023 issued by the Green Finance Industry Taskforce convened by the Monetary Authority of Singapore.

<table>
<tr><th>Eligible Transition Project Category</th><th>Eligible Transition Project Sub-Category</th><th>Eligibility Criteria</th><th>Relevant Sustainable Development Goals (SDGs)</th></tr>
<tr><td>Energy</td><td>Electricity generation from fossil gaseous fuels</td><td>Eligible capital expenditure measures can meet any one of the following:
• Retrofit of existing power generation facilities (e.g. CCGT, fuel cells) to allow hydrogen or its derivatives that meet the CCGT technological readiness thresholds and criteria as below

In vol%
<table><tr><td>Timeline</td><td>2023-2028</td><td>2029-2032</td><td>2033-2035</td></tr><tr><td>CCGT technological readiness for hydrogen or its derivatives</td><td>30</td><td>50</td><td>100</td></tr></table>
• New power plants that can allow hydrogen or its derivatives the CCGT technological readiness thresholds and criteria above
• Other investments directly supporting or facilitating hydrogen uptake in the plant are eligible if the measures result in the new plant to allow for share (by volume) of hydrogen or its derivatives to reach or exceed above thresholds</td><td>  </td></tr>
</table>

<table>
<tr><td></td><td></td><td>• Retrofit of existing plants with CCS that is designed at the outset to allow the facility to meet lifecycle GHG emissions from the generation of electricity lower than 100gCO2e/kWh by 2035 at the latest
• New power plants that capture at least 50% of emissions and are designed to meet lifecycle GHG emissions from the generation of electricity lower than 100gCO2e/kWh by 2035 at the latest

In addition to above, all measures must meet the following criteria:
• the power cannot be generated from renewable energy sources, based on a comparative assessment with the most cost-effective and technically feasible renewable alternative for the same capacity identified; the result of this comparative assessment is published and is subject to a stakeholder consultation</td><td></td></tr>
<tr><td>Energy</td><td>Electricity generation from bioenergy power</td><td>All existing bioenergy power generation facilities that comply with all/or any or the criteria is eligible:
• Lifecycle emissions intensity meets amber criteria as defined below:
<table><tr><td>Timeline</td><td>2023-2030</td><td>2031-2035</td><td>2036-2050</td></tr><tr><td>Amber (direct emissions in gCO_2e/kWh)[1]</td><td>⩽220</td><td>⩽150</td><td>N.A.</td></tr></table>
• Bioenergy produced from waste (e.g., agriculture, municipal sources) are eligible
• Feedstock used for production of bioenergy should comply with one of the following standards:
○ Forest Stewardship Council (FSC)
○ Biomass Biofuels voluntary scheme (2BSvs)
○ Bonsucro (Better Sugarcane Initiative)
○ Roundtable of Sustainable Biomaterials (RSB)
○ Round Table on Responsible Soy (RTRS)
○ International Sustainability and Carbon Certification (ISCC and/or ISCC plus)</td><td></td></tr>
<tr><td>Carbon Capture and Storage</td><td>Point-source capture of carbon dioxide</td><td>Point-source capture of carbon dioxide from electricity generation of fossil gaseous fuels to enable it to meet a lifecycle GHG emissions intensity of ⩽220gCO2e/kWh up to 2030 and ⩽ 150gCO2e/kWh from 2031 to 2035, and verified by an independent third party</td><td>  </td></tr>
</table>

[1] Intensity thresholds (gCO_2e/kWh) are based on Transition Pathway Initiatives (TPI) 2°C scenario where threshold is taken from intersection of line at end point year and rounded to nearest 10 (e.g. 2023 – 2028 uses 2028 intersection) with a sunset date of 2035 after which point the thresholds will not be applicable.

2.1.3 Eligible Social Projects

Potential social expenditures are expenditures used to finance projects that address social issues and fall under the Eligible Social Project Categories. While projects may align with more than one project category, projects are listed in the category that best fits their primary impact objective.

Eligible Social Project Category	Eligible Social Project Sub-Category	Eligibility Criteria	Target Population	Relevant Sustainable Development Goals (SDGs)
Access to essential services	Education	Educational outreach programmes to target population	Primary, secondary and tertiary school students	
Socioeconomic advancement and empowerment	Equitable access to opportunities	Programmes that enable target population to gain basic entrepreneurship skills	People with disabilities	
Food security	Food	Programmes that enable target population equitable access to sufficient food	Lower income households	

2.1.4 Exclusion List

For the avoidance of doubt, any business activities that are directly and knowingly supporting coal mining, the weapons industries, tobacco, adult entertainment or gambling activities or activities that involve the capturing and trading of endangered or critically endangered species, shall not be eligible for a SF Transaction.

2.2 Process of Project Evaluation and Selection

The process for project evaluation and selection plays a key role in ensuring that the proceeds from the SF Transactions will be used for projects that meet the Eligibility Criteria outlined in Section 2.1 “Use of Proceeds”.

The process for the selection and evaluation of Eligible Projects are as follows:

- PLP’s Finance team (together with relevant subject experts, where necessary), which is responsible for implementing and maintaining this Framework.

  The key responsibilities include:

  - **Review, Select and Validate**
    Identify, assess and validate the pool of Eligible Projects in line with the Eligibility Criteria set out in section 2.1.

- **Ongoing Compliance Monitoring**
  During the lifecyle of each Eligible Project, regularly review and exclude any projects that no longer comply with the Eligibility Criteria or have been disposed of. These will be replaced with new Eligible Projects, where applicable.

- **Market Practice Alignment**
  Monitor evolving sustainable financing market practices, particularly regarding disclosure and reporting, to ensure continued alignment with best market practices.

- All Eligible Projects must be reviewed and approved in accordance with PLP's internal governance and are subject to final approval by the Chief Financial Officer ("CFO").

- The Chief Executive Officer has the right of veto on decisions made by the CFO.

2.3 Management of Proceeds

The net proceeds from the SF Transactions, or amount equal to the net proceeds, will be allocated exclusively to the Eligible Projects. If there are outstanding proceeds, PLP's Finance team will manage the Eligible Project list through its internal registers and periodically monitor the balance of the tracked proceeds.

Where necessary, additional Eligible Projects shall be added to ensure sufficient and timely allocation of the incremental net proceeds.

During the life of the SF Transaction, if a project ceases to fulfil the Eligibility Criteria, PLP will, on a best effort basis, remove the project from the portfolio of Eligible Projects and replace it as soon as reasonably practicable. Any addition will follow the process described in Section 2.2. To avoid double counting, PLP will not list eligible expenditures more than once in the allocation of the net proceeds.

Where the allocation of proceeds is pending due to there being insufficient approved Eligible Projects at any given time during tenor of the respective SF Transaction(s), PLP may deploy the proceeds at its own discretion in cash or cash equivalent instruments, marketable securities or alternative investments. Such investments will not damage the integrity of the Green, Transition or Social loan/bond market.

2.4 Reporting

PLP Group is committed to transparency in its reporting on its SF Transaction. Relevant reporting methodology and calculation assumptions used in the report to bondholders and/ or lenders will be disclosed.

2.4.1 Allocation Reporting

Green, Transition and/or Social Bonds

PLP or its subsidiaries or related managed entities will provide an annual report of the allocation of the proceeds until full allocation of the net proceeds of any outstanding Green, Transition and/or Social Bonds, or in a timely basis in the event of material development. The report will include:

- The total amount of proceeds allocated and the balance of unallocated proceeds
- Share of proceeds used for new financing vs. re-financing
- A breakdown of allocations and a brief description of each eligible project
- Where feasible, impact reporting using relevant quantitative performance indicators (e.g., energy savings, greenhouse gas emissions avoided, etc.)
- External assurance or review of the allocation report, where appropriate

Green, Social and Sustainability Loans

Where required by Lenders, PLP or its subsidiaries or related managed entities will provide an annual report of the allocation of the proceeds until full allocation of the net proceeds of any outstanding Green, Transition and/or Social Loans, or in a timely basis in the event of material development.

2.4.2 Impact Reporting

Green, Transition and/or Social Bonds

PLP will provide an annual report on the impact of the projects until full bond allocation, using relevant indicators in relation to the Eligible Green, Transition and/or Social Project(s). Examples of such indicators may include:

Category	Examples of indicators
Energy	• Annual GHG emissions reduced/avoided in tonnes of CO_2 equivalent • Annual on-site renewable energy generation in MWh • Annual verified carbon credits generated • Annual energy savings in MWh • Annual electricity storage capacity installed in MWh
Waste	• Annual GHG emissions avoided/reduced in tonnes of CO_2 equivalent compared to landfilling or open burning • Percentage/amount of waste diverted from landfills • Amount of energy recovered per ton of waste

	• Wood waste processed in tonnes per year, by source stream
Carbon Capture and Storage	• Carbon captured (tonnes/year) and average capture rate (% of inlet CO_2)

Green, Transition and/or Social Loans

Where required by Lenders, PLP will provide an annual report on the impact of the projects until full loan allocation, using relevant indicators in relation to the Eligible Project(s).

2.5 External Review

2.5.1 Pre-Issuance External Review

PLP Group has engaged DNV Business Assurance Singapore Pte Ltd to provide a Second Party Opinion (SPO) on its Framework. This review is performed to confirm the alignment of this framework with the core components of the Principles.

This review is done on a one-off basis unless there are material changes to this Framework.

2.5.2 Post-Issuance External Review

Green, Transition and/or Social Bonds

PLP or its subsidiaries or related managed entities will engage an independent provider to provide annual external verification on the alignment of the annual allocation reporting of bond proceeds with the Framework, until full allocation and in case of material changes.

Green, Transition and/or Social Loans

Where required by lenders, PLP or its subsidiaries or related managed entities will engage an independent provider to provide annual external verification and will make the necessary information readily available to the lenders upon request.