

CLP CLIMATE ACTION BOND

DNV GL 2ND PARTY OPINION

Scope and Objectives

CLP Holdings Limited (CLP) (henceforth referred to as "CLP") is one of the largest investor-owned power businesses with presence in Hong Kong, Mainland China, India, Southeast Asia, Taiwan and Australia. Its diversified portfolio of generating assets uses a wide range of fuels including coal, gas, nuclear and renewable sources. As at 31 December 2016, CLP's portfolio comprised 18,622 megawatts ("MW") of equity generating capacity and 5,159 MW of capacity purchase, among which 3,090 MW and 461 MW were from renewable sources respectively. CLP's business also includes transmission and distribution, and electricity and gas retail activities. It has approximately 80 assets with equity generating capacity of 18,180 MW and purchasing capacity of 4,988 MW. CLP's majority owned business unit is intending to issue bonds for the purpose of financing capital expenditure to meet its objectives as outlined in CLP's Climate Action Finance Framework.

Two types of Bonds (henceforth referred to as "Climate Action Bonds") can be issued under CLP's framework:

- **Energy Transition Bonds** whose use of proceeds is to develop gas fired power plants to support the transition from coal fired power generation in markets with limited renewable energy resources.
- **New Energy Bonds** whose use of proceeds is to develop renewable energy, energy efficiency and low emissions transportation infrastructure projects.

DNV GL Business Assurance Services Limited (henceforth referred to as "DNV GL") has been commissioned by CLP to provide an eligibility assessment on the Climate Action Finance Framework (CAFF). Our methodology to achieve this is described under 'Work Undertaken' below. We were not commissioned to review individual bonds or assets, provide independent assurance or other audit activities.

No assurance is provided regarding the financial performance of the Climate Action Bonds, the value of any investments in the Climate Action Bonds, or the long term environmental benefits of the transaction. Our objective has been to provide an assessment that the Climate Action Bonds has met the criteria established on the basis set out below.

Responsibilities of the Management of CLP and DNV GL

The management of CLP has provided the information and data used by DNV GL during the delivery of this review. Our statement represents an independent opinion and is intended to inform CLP's management and other interested stakeholders in the Climate Action Bonds as to whether the established criteria have been met, based on the information provided to us. In our work, we have relied on the information and the facts presented to us by CLP. DNV GL is not responsible for any aspect of the projects or assets referred to in this opinion and cannot be held liable if estimates, findings, opinions, or conclusions are incorrect. Thus, DNV GL shall not be held liable if any of the information or data provided by CLP management and used as a basis for this assessment were not correct or complete.

Basis of DNV GL's opinion

We have adapted our green bond eligibility assessment methodology to create CLP specific CAFF Eligibility Assessment Protocol (henceforth referred to as "Protocol") - see Schedule 2. Our Protocol includes a set of suitable criteria that can be used to underpin DNV GL's opinion. The overarching principle behind the criteria is that there are environmental benefits for the investments to be funded under the CAFF.

As per our Protocol, the criteria against which the Climate Action Bonds have been reviewed are grouped under the four Principles:

- **Principle One: Use of Proceeds.** The Use of Proceeds criteria are guided by the requirement that an issuer of a green bond must use the funds raised to finance eligible activities. The eligible activities should produce clear environmental benefits.
- **Principle Two: Process for Project Evaluation and Selection.** The Project Evaluation and Selection criteria are guided by the requirements that an issuer of a green bond should outline the process it follows when determining eligibility of an investment using Green Bond proceeds, and outline any impact objectives it will consider.
- **Principle Three: Management of Proceeds.** The Management of Proceeds criteria are guided by the requirements that a green bond should be tracked within the issuing organization, that separate portfolios should be created when necessary and that a declaration of how unallocated funds will be handled should be made.
- **Principle Four: Reporting.** The Reporting criteria are guided by the recommendation that at least annual reporting to the bond investors should be made of the use of bond proceeds and that quantitative and/or qualitative performance indicators should be used, where feasible.

Work undertaken

Our work constituted a high-level review of the available information, based on the understanding that this information was provided to us by CLP in good faith. We have not performed an audit or other tests to check the veracity of the information provided to us. The work undertaken to form our opinion included:

- Creation of a CLP specific protocol, adapted to the purpose of the Climate Action Bonds, as described above and in Schedule 2 to this Assessment;
- Assessment of documentary evidence provided by CLP on the Climate Action Bonds and supplemented by a high-level desktop research. These checks refer to current assessment best practices and standards methodology;
- Discussions with CLP management, and review of relevant documentation and evidence related to the criteria of the Protocol;
- Documentation of findings against each element of the criteria. Our opinion as detailed below is a summary of these findings.

Findings and DNV GL's opinion

DNV GL's findings are listed below:

1. Principle One: Use of Proceeds.

CLP intends to issue bonds under its Climate Action Finance Framework. Climate Action Bonds will be one of two types:

Energy Transition Bonds

The proceeds from the issuance of Energy Transition Bonds will be applied to finance or refinance, in whole or in part, investment in the building of natural gas fired power plants where the opportunities to develop renewable energy is limited, the conversion of coal fired power plants, and the facilities or modifications associated with such building or conversion, which will result in carbon emission no more than 450gCO₂/kWh at baseload.

DNV GL notes that gas is not a common use of proceeds for a green bond – however gas is internationally recognised as a “bridging fuel” between coal and renewable energy where local renewable energy generation conditions are unfavourable and relevant regulatory frameworks are aligned with the Paris Climate Agreement.

Hong Kong's Environment Bureau has published its Climate Action Plan 2030+ which commits to alignment with the Paris Climate Agreement and sets targets to reduce both absolute (26-36% reduction) and intensity-based (65-70% reduction) carbon emissions from a 2005 baseline by 2030. The plan recognises that large-scale commercial renewable energy is restricted in Hong Kong based on current renewable technology due to limited land area, unfavourable terrain and restricted territorial waters. Therefore, in order for Hong Kong to meet its carbon reduction targets by 2030 it is recognised that gas will act as a “bridging fuel” between the currently heavily coal dependant energy generation state and a low carbon generation state.

On this basis, DNV GL conclude that CLP's Energy Transition Bonds will bring environmental benefits in markets with limited renewable energy potential.

New Energy Bonds

The proceeds from the issuance of New Energy Bonds will be applied to finance or refinance, in whole or in part, investment in:

- i. generation of energy from renewable sources including wind, solar, waste-to-energy, tidal, hydro and biomass energy and associated assets (including dedicated transmission infrastructure);
- ii. improvements in energy efficiency including smart grid and smart metering systems;
- iii. low carbon transport infrastructure including dedicated electric vehicle charging infrastructure.

DNV GL concludes that CLP's New Energy Bonds fall within the broadly defined categories of renewable energy and sustainable transport.

2. Principle Two: Process for Project Evaluation and Selection.

The Eligible Climate Action Bonds Projects within the CAFF Climate Action Bonds Portfolio will be dynamic and change over time depending on the investment and expenditure priorities of CLP. CLP Group Business Units will make their own determination as to whether they wish to issue a Climate Action Bond under the CLP Climate Action Finance Framework, with approvals undertaken by the CLP Group Climate Action Finance Committee (CAFC), made up of senior management including representatives from each of finance, sustainability and legal departments

DNV GL has reviewed the evidence and can confirm that the eligible project categories and governance framework for project selection meets the eligibility criteria defined by CLP in the Climate Action Bonds documentation, including CLP Climate Action Finance Framework. CLP has outlined the process by which it will allocate funds to eligible projects Governance Team responsible for approving projects.

3. Principle Three: Management of Proceeds.

DNV GL has reviewed evidence showing how CLP plans to trace the proceeds from the Climate Action Bonds, from the time of issuance to the time of disbursement. The CLP Climate Action Finance Framework includes a description of the functions and teams responsible for the tracking. The funds raised from the Climate Action Bonds will be credited to dedicated bank accounts/deposits which are normally used for liquidity management purposes of the corresponding CLP Group Business Unit. Each corresponding CLP Group Business Unit will maintain a register to properly keep track of the use of proceeds for each CLP Climate Action Bonds issuance. The register will record the amount and nature of each allocation made and the remaining balance of unallocated proceeds. DNV GL can confirm CLP have adequate processes to ensure traceability of Climate Action Bonds proceeds.

4. Principle Four: Reporting.

DNV GL can confirm CLP will report on the use of proceeds within one year from the date of a Climate Action Bond issuance and annually thereafter via its CLP Climate Finance Action Report. The information reported on will include insights into the total amount of the eligible investments and expenditures, the environmental impacts achieved with the use of proceeds and the balance of unallocated cash and/or cash equivalent. The Climate Action Finance Report will provide further information on projects with allocations from proceeds of CLP Climate Action Bonds.

Conclusion

On the basis of the information provided by CLP and the work undertaken, it is DNV GL's opinion that the Climate Action Bonds meet the criteria established in the Protocol and there are environmental benefits for the investments to be funded under the CAFF.

DNV GL notes that the Use of Proceeds of the New Energy Bonds are included in the indicative list of sectors included in the section 1 of Green Bond Principles whilst the Use of Proceeds of Energy Transition Bonds are not. DNV GL concludes that the project selection, funds tracking and reporting procedures set out in the CAFF meet the criteria established in the Protocol and are aligned with sections 2, 3 and 4 of the Green Bond Principles 2017.

for DNV GL Business Assurance Services UK Limited

London, 6th July, 2017



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About DNV GL

Driven by our purpose of safeguarding life, property and the environment, DNV GL enables organisations to advance the safety and sustainability of their business. Combining leading technical and operational expertise, risk methodology and in-depth industry knowledge, we empower our customers' decisions and actions with trust and confidence. We continuously invest in research and collaborative innovation to provide customers and society with operational and technological foresight.

With our origins stretching back to 1864, our reach today is global. Operating in more than 100 countries, our 16,000 professionals are dedicated to helping customers make the world safer, smarter and greener.

1 SCHEDULE 1: DESCRIPTION OF CATEGORIES TO BE FINANCED THROUGH CLIMATE ACTION BONDS

Eligible Green Categories	Use of Proceeds
Energy Transition	<p>The proceeds from the issuance of Energy Transition Bonds will be applied to finance or refinance, in whole or in part, investment in the building of natural gas fired power plants where the opportunities to develop renewable energy is limited, the conversion of coal fired power plants, and the facilities or modifications associated with such building or conversion, which will result in carbon emission no more than 450gCO₂/kWh at baseload.</p>
New Energy	<p>The proceeds from the issuance of New Energy Bonds will be applied to finance or refinance, in whole or in part, investment in:</p> <ul style="list-style-type: none"> • generation of energy from renewable sources including wind, solar, waste-to-energy, tidal, hydro and biomass energy and associated assets (including dedicated transmission infrastructure); • improvements in energy efficiency including smart grid and smart metering systems; • low carbon transport infrastructure including dedicated electric vehicle charging infrastructure.

SCHEDULE 2: CLP - SPECIFIC CLIMATE ACTION BONDS ELIGIBILITY ASSESSMENT PROTOCOL

1. Use of proceeds

Ref.	Criteria	Requirements	Work Undertaken	DNV GL Findings
1a	Type of bond	<p>The bond must fall in one of the following categories, as defined by the Green Bond Principles:</p> <ul style="list-style-type: none"> • Green Use of Proceeds Bond • Green Use of Proceeds Revenue Bond • Green Project Bond • Green Securitized Bond 	<p>In addition to reviewing the evidence below, we had several detailed discussions with CLP on the Criteria required.</p> <p>Evidence reviewed:</p> <ul style="list-style-type: none"> • CLP Climate Action Finance Framework 	<p>The CLP Climate Action Finance Climate Action Bond falls within the category of a Green Use of Proceeds Bond.</p>
1b	Green Project Categories	<p>The cornerstone of a Green Bond is the utilization of the proceeds of the bond which should be appropriately described in the legal documentation for the security.</p>	<p>In addition to reviewing the evidence below, we had several detailed discussions with CLP on the Criteria required.</p> <p>Evidence reviewed:</p> <ul style="list-style-type: none"> • CLP Climate Action Finance Framework • Hong Kong Climate Action Plan 2030+ 	<p>We conclude that the legal documentation confirms the utilization of proceeds is appropriately described.</p>
1c	Environmental benefits	<p>All designated Green Project categories should provide clear environmentally sustainable benefits, which, where feasible, will be quantified or assessed by the issuer.</p>	<p>In addition to reviewing the evidence below, we had several detailed discussions with CLP on the Criteria required.</p> <p>Evidence reviewed:</p> <ul style="list-style-type: none"> • CLP Climate Action Finance Framework 	<p>The evidence reviewed gives us the opinion that the designated Green Project categories do provide clear environmentally sustainable benefits.</p>

Ref.	Criteria	Requirements	Work Undertaken	DNV GL Findings
			<ul style="list-style-type: none"> Hong Kong Climate Action Plan 2030+ CCGT_Presentation_en_20160504_01.ppt Additional Gas-fired Generation Units Project – Executive Summary 	

2. Process for Project Selection and Evaluation

Ref.	Criteria	Requirements	Work Undertaken	DNV GL Findings
2a	Issuer’s environmental and social and governance framework	In addition to information disclosed by an issuer on its Green Bond process, criteria and assurances, Green Bond investors may also take into consideration the quality of the issuer’s overall framework and performance regarding environmental sustainability.	<p>In addition to reviewing the evidence below, we had several detailed discussions with CLP on the Criteria required.</p> <p>Evidence reviewed:</p> <ul style="list-style-type: none"> CLP Climate Action Finance Framework 	We conclude that, from the information provided, CLP’s approach to managing environmental sustainability is in line with the objective of the Climate Action Bonds.

3. Management of proceeds

Ref.	Criteria	Requirements	Work Undertaken	DNV GL Findings
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Ref.	Criteria	Requirements	Work Undertaken	DNV GL Findings
3a	Tracking procedure	The net proceeds of Green Bonds should be credited to a sub-account, moved to a sub-portfolio or otherwise tracked by the issuer in an appropriate manner and attested to by a formal internal process that will be linked to the issuer's lending and investment operations for Green Projects.	In addition to reviewing the evidence below, we had several detailed discussions with CLP Management on the Criteria required. Evidence reviewed: <ul style="list-style-type: none"> CLP Climate Action Finance Framework 	We found that the CLP Climate Action Bonds will be tracked in an appropriate manner and attested to by a formal internal process.
3b	Tracking procedure	So long as the Green Bonds are outstanding, the balance of the tracked proceeds should be periodically reduced by amounts matching eligible green investments or loan disbursements made during that period.	In addition to reviewing the evidence below, we had several detailed discussions with CLP Management on the Criteria required. Evidence reviewed: <ul style="list-style-type: none"> CLP Climate Action Finance Framework 	We conclude that there is a clear process in place for the tracking of the balance taking into account disbursements.
3c	Temporary holdings	Pending such investments or disbursements to eligible Green Projects, the issuer should make known to investors the intended types of temporary investment instruments for the balance of unallocated proceeds.	In addition to reviewing the evidence below, we had several detailed discussions with CLP Management on the Criteria required. Evidence reviewed: <ul style="list-style-type: none"> CLP Climate Action Finance Framework 	We conclude that CLP has in place dedicated bank accounts/deposits which are normally used for liquidity management purposes of the corresponding CLP Group Business Unit.

4. Reporting

Ref.	Criteria	Requirements	Work Undertaken	DNV GL Findings
4a	Periodical reporting	In addition to reporting on the use of proceeds and the temporary investment of unallocated proceeds, issuers should provide at least annually a list of projects to which Green Bond proceeds have been allocated including - when possible with regards to confidentiality and/or competitive considerations - a brief description of the projects and the amounts disbursed, as well as the expected environmentally sustainable impact.	<p>In addition to reviewing the evidence below, we had several detailed discussions with CLP Management on the Criteria required.</p> <p>Evidence reviewed:</p> <ul style="list-style-type: none"> • CLP Climate Action Finance Framework 	<p>We can confirm CLP commits to annual reporting within their Climate Action Finance Report.</p> <p>Section 6 Reporting on Use of Proceeds of the CLP Climate Action Finance Framework sets out what will be reported and where including;</p> <ul style="list-style-type: none"> - Identity of CLP Group Business Unit issuing a Climate Action Bonds under the CAFF; - Type of Climate Action Bonds issued (Energy Transition or Emissions Reduction Bond or New Energy Bond); - Aggregate amounts of proceeds allocated; - Estimation of beneficial impact of the use of proceeds; - The remaining balance of unallocated proceeds at the reporting period end.