

Risk Management Report

We are committed to continually improving our risk management framework, capabilities, and culture across the Group so as to ensure the long-term growth and sustainability of our business.

CLP's Risk Management Philosophy

Risk is inherent in CLP's business and the markets in which it operates. The aim is to identify risks and then manage them so that they can be understood, reduced, mitigated, transferred or avoided. This demands a proactive approach to risk management and an effective group-wide risk management framework.

CLP's overall risk management process is overseen by the Board through the Audit Committee as an element of solid corporate governance. CLP recognises that risk management is the responsibility of everyone within CLP. Rather than being a separate and standalone process, risk management is integrated into business and decision-making processes including strategy formulation, business development, business planning, capital allocation, investment decisions, internal control and day-to-day operations.

CLP's risk management objectives:

- At a strategic level, CLP focuses on the identification and management of material risks at the Group, business and functional levels, in order to better equip itself to pursue the Group's strategic and business objectives. In pursuing growth opportunities, CLP aims to optimise risk / return decisions whilst establishing strong and independent review and challenge processes.
- At an operational level, CLP aims to identify, assess, evaluate and mitigate operational hazards and risks in order to create a safe, healthy, efficient and environmentally-friendly workplace for its employees and contractors whilst ensuring public safety and health, minimising environmental impact, and securing asset integrity and adequate insurance.

CLP's Risk Appetite and Risk Profiling Criteria

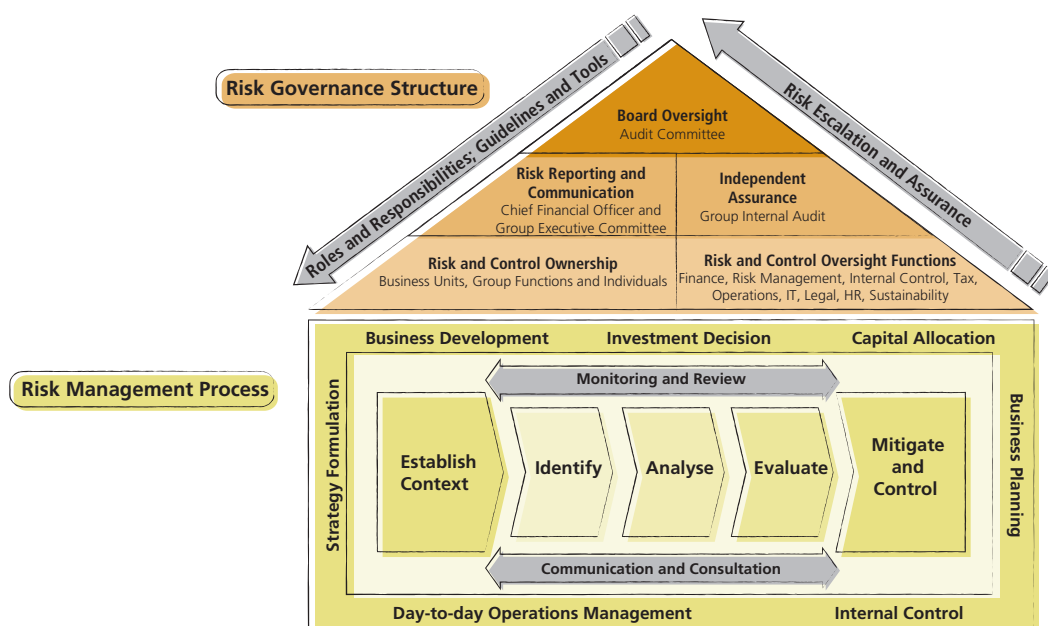
CLP's risk appetite represents the amount of risk the Group is willing to undertake in pursuit of its strategic and business objectives. In line with CLP's Value Framework and expectations of its stakeholders, CLP will only take reasonable risks that (a) fit its strategy and capability, (b) can be understood and managed, and (c) do not expose the Group to:

- material financial loss impacting ability to execute the Group's business strategy and/or materially compromising the Group's ongoing financial viability,
- incidents affecting safety and health of our staff, contractors and the general public,
- material breach of external regulations leading to loss of critical operational / business licence and/or substantial fines,
- damage of the Group's reputation and brand name,
- business / supply interruption leading to severe impact on the community, and
- severe environmental incidents.

Based on the above, CLP has established its risk monitoring in the form of a risk assessment matrix to help rank risks and prioritise risk management efforts at the Group level. Business units are required to adopt the same risk matrix structure in order to establish their own risk profiling, determine consequence and likelihood of identified risks with reference to their own materiality and circumstances as well as establishing risk mitigation strategies.

CLP's Risk Management Framework

CLP's risk management framework comprises two key elements: risk governance structure and risk management process.



CLP's Risk Governance Structure

- Facilitates risk identification and escalation whilst providing assurance to the Board.
- Assigns clear roles and responsibilities and facilitates implementation with guidelines and tools.
- Consists of multiple layers of roles and responsibilities as explained below.

Board Oversight

Audit Committee, acting on behalf of the Board

- Evaluate and determine the nature and extent of the risks the Board is ready to endorse for the Group to take in pursuing the delivery of the Group's strategic objectives.
- Ensure that an appropriate and effective risk management framework is established and maintained by the Group.
- Oversee management in the design, implementation and monitoring of the risk management framework.
- Oversee management in their risk mitigation efforts.

Independent Risk Assurance

Group Internal Audit

- Capitalise on the audit processes and plans of Group Internal Audit to review the effectiveness of risk management framework.

Risk Reporting and Communication

Chief Financial Officer and Group Executive Committee

- Provide leadership and guidance for the balance of risk and return.
- Supported by Group Risk Management, communicate and assess the Group's risk profile and material risks at the Group level.
- Track progress of mitigation plans of material risks and report on detailed examinations of specific risks as required.
- Ensure that a review of the effectiveness of the risk management framework has been conducted at least annually and provide such confirmation to the Board through the Audit Committee.

Risk and Control Oversight Functions

Group Functions with Risk and Control Oversight Role: Finance, Risk Management, Internal Control, Tax, Operations, Information Technology, Legal, Human Resource, Sustainability.

- Establish relevant group-wide policies, standards, procedures, guidelines where appropriate.
- Oversee business units as well as group risk and the control activities relevant to respective functions.

Risk and Control Ownership

Business Units, Group Functions and Individuals

- Responsible for identifying and assessing key risks in their areas of responsibility, making effective risk management decisions, establishing risk mitigation strategies as well as promoting a risk-aware culture.
- Carry out risk management activities and reporting in their day-to-day operations and ensure that risk management processes and mitigation plans follow good practices and guidelines established by the Group.
- Ensure that a review of the effectiveness of the risk management framework for their areas of responsibility has been conducted at least annually and provide such confirmation to the Group Executive Committee.
- Risk managers or coordinators at business units and group functions have been appointed to facilitate communication, experience sharing and risk reporting.

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CLP's Risk Management Process

- Is integrated into business and decision-making processes including strategy formulation, business development, business planning, capital allocation, investment decisions, internal control and day-to-day operations management.
- Involves establishing the context, identifying risks, assessing their consequences and likelihood, evaluating risk level, control gaps and priorities, and developing control and mitigation plans. This is a continuous process with periodic monitoring and review in place. It is also an interactive process with stakeholder communication and consultation.

Quarterly Risk Review Process at Group Level – An integrated bottom-up and top-down risk review process

CLP adopts an integrated bottom-up and top-down risk review process to enable (1) comprehensive identification and prioritisation of all material risks throughout the Group, (2) escalation of material risks at the right managerial level, (3) effective risk dialogue among the management team, and (4) proper oversight of risk mitigation efforts.

Bottom-up Process

- Every quarter, our business units and group functions are required to submit their material risks identified through their risk management process to Group Risk Management.
- Group Risk Management, through aggregation, filtering and prioritising processes as well as consultation process, compile a Quarterly Group Risk Management Report for discussion at the Group Executive Committee, chaired by the CEO. The Committee reviews and scrutinises the material risks and ensures the appropriate controls and mitigation measures are in place or in progress.
- Following review by the Group Executive Committee, the Quarterly Group Risk Management Report is submitted to the Audit Committee with a summary of the material risks circulated to the Board. "Deep dive" presentations on selected risks are presented to the Audit Committee for more detailed review.

Top-down Process

- Emerging risks and/or overarching strategic risks, which might have a material impact on the Group over a longer timeframe, are monitored and discussed on a quarterly basis by the Group Executive Committee.
- Group Risk Management facilitates ongoing emerging risk review and management discussion by compiling relevant information from both internal and external sources. Overarching strategic risks are reviewed and discussed during the annual business planning process. Emerging risks that are identified and considered material are further assessed and monitored by relevant business units or group functions. (An example of emerging risk is set out on page 138)

Risk Review Process for Investment Decisions

- All new material investments must be endorsed by the CLP Holdings Investment Committee, chaired by the CEO, before seeking approval from the Board or Finance & General Committee.
- CLP adopts a multi-gated system of periodic project appraisals during their development and investment cycles both prior to and after a final investment decision is made.
- CLP requires independent multi-disciplinary review of any investment proposal before submission to the Investment Committee. Independent risk appraisal by Group Risk Management is part of the investment review process.
- Group Risk Management control ensures for each investment project a detailed project risk assessment with proper documentation. Detailed checklists and worksheets are adopted for identifying risks/ mitigations and assessing risk level. Material risks and associated mitigations are highlighted and discussed at the Investment Committee.

Risk Management Integrated with Internal Control Systems

- Risk management is closely linked to CLP's Integrated Framework of Internal Control. Key controls are subject to testing in order to assess their effectiveness. Details on Internal Control are set out in the Corporate Governance Report on pages 108 to 129.

Risk Management in the Business Planning Process

- In the annual business planning process, business units are required to identify all material risks that may impact their achievement of business objectives. Identified risks are evaluated based on the same set of risk profiling criteria as the quarterly risk review process. Plans to mitigate the identified risks are developed for implementation and budget purposes. The material risks set out on pages 134 to 137 of this Annual Report have been extracted from our 2015 business planning process.

Major Risk Management Initiatives in 2015

- Hong Kong Stock Exchange has amended its Corporate Governance Code, effective 1 January 2016, relating to risk management. Whilst CLP is, in general, already in compliance with the amendments, further adjustments are being made to relevant processes to ensure timely compliance.
- Group Risk Management has reviewed, in relation to risk management, the Terms of Reference of the Audit Committee, the General Representation Letter checklist, the group-wide risk management framework etc. It also supported China business unit in preparing risk management training materials, conducting training sessions, and sharing risk management practices with some of our key partners in China, including Guohua Electric Power Corporation and China General Nuclear Power Corporation.
- CLP Power Hong Kong has further enhanced its risk management monitoring by identifying and mapping significant events or key issues in the coming years which may potentially impact its business.
- China business unit has promoted reviews and discussions of enterprise risks in addition to operational risks at the Board meetings of its assets e.g. Fangchenggang, Jiangbian and Huaiji. It also commissioned independent risk assessment for Jiangbian and Huaiji subsequent to the incidents relating to extreme weather events.
- Following the establishment of the new corporate strategy, EnergyAustralia undertook a reassessment of its enterprise-wide risks which could materially impact the achievement of objectives. Supporting this reassessment, EnergyAustralia's IT also commissioned independent reviews of their cyber security and IT control risks. In addition, EnergyAustralia's controls across credit and market risks were further enhanced with the incorporation of strategic third-party credit management assessment.

Material Risks of the Group

Our 2015 business planning process has identified the following as material risks of the Group.

Risk Description	Changes in 2015	Key Risk Mitigations
<p>Regulatory Risk remains the key challenge of most business units. Notably in Hong Kong, some calls to lower the level of rate of return, an increased focus on renewable energy and energy efficiency on the next SoC Agreement, for which discussions have already started between the Government and CLP Power Hong Kong. The Australian energy market continues to face regulatory uncertainty on numerous fronts from carbon, renewable energy targets, liabilities of mine rehabilitation to retail pricing re-regulation. The Chinese Government has issued power market reforms, the practical implementation of which is still very difficult to assess.</p>		
<p>Regulatory & political risk of Hong Kong business</p> <p>Medium-term risk of adverse changes to the post-2018 regulatory structure exists. The results of Hong Kong Government's public consultation on future development of the electricity market recognised the value of SoC and supported a continuation of the established regulatory framework, although there was a range of views expressed on the level of the rate of return as well as greater expectations for more renewable energy, energy efficiency and conservation and further improvements to the penalty / incentive scheme under the new regulatory regime.</p>	<p style="text-align: center;"></p> <p style="text-align: center;"><i>Consultation on electricity market development ended with results announced</i></p>	<ul style="list-style-type: none"> • Implement comprehensive stakeholder engagement plan to facilitate sensible and informed discussion on the post-2018 regulatory regime. • Focus on operating performance, customer service and brand building to reinforce CLP's demonstrated performance and commitment to our customers and the wider community.
<p>Uncertain regulatory outcomes impacting EnergyAustralia's performance</p> <p>EnergyAustralia's performance remains under the influences of regulatory uncertainty such as carbon mitigation, renewable energy targets, spot market rule changes, technical & regulatory obligations of assets, potential changes in regulations about mine remediation, Greenhouse Gas Emissions Reduction scheme, retail pricing re-regulation etc.</p>	<p style="text-align: center;"></p> <p style="text-align: center;"><i>Renewable Energy Target (RET) revised down to 33TWh by 2020 (down from 41TWh previously)</i></p>	<ul style="list-style-type: none"> • Centralised regulation and compliance team to manage EnergyAustralia's position on proposed regulatory changes. • Stakeholder and government engagement to advocate our position on regulatory changes.
<p>Market Risk is another driver of volatility facing the Group with lower economic growth, change in GDP structure and environmental efforts in China potentially reducing output of thermal power plants. Lower worldwide demand and prices for commodities have also dampened the Australian economy, in which the oversupply situation of the wholesale generation market continues to impact EnergyAustralia.</p>		
<p>Significant energy market changes impacting EnergyAustralia's stability</p> <p>EnergyAustralia continues to face threat of demand reduction, lower pool prices and increasing retail competition.</p>	<p style="text-align: center;"></p> <p style="text-align: center;"><i>Oversupply situation of the wholesale generation market continues</i></p>	<ul style="list-style-type: none"> • New organisational structure and strategy focused on the customer, low cost operating model, digital transformation and NextGen products. • State-based marketing plans to address account and customer erosion through product and service differentiation.
<p>Electricity volume risk affecting China portfolio</p> <p>Volume risk due to resource variability, supply-demand imbalances and grid constraints/curtailments in certain areas.</p> <p>In 2015, Fangchenggang's generation output remained low due to increased hydro generation in Guangxi and more subdued electricity demand. Turnaround depends on upcoming capacity such as nuclear, hydro generation and economic performance of Guangxi.</p>	<p style="text-align: center;"></p> <p style="text-align: center;"><i>Fangchenggang dispatch remained low</i></p>	<ul style="list-style-type: none"> • Review of operations and development strategy. • Proactively engage with Government and grid companies advocating for more dispatch. • Explore steam sales and direct electricity sales to boost generation.

Risk Description	Changes in 2015	Key Risk Mitigations
<p>Financial Risk – The Group’s liquidity remains strong and financial risks have been decreasing with major financing and refinancing activities completed across the Group. Credit rating outlooks of CLP Holdings, CLP Power Hong Kong and EnergyAustralia have been revised to stable from negative, thanks to initiatives in further enhancing the Group’s capital structure, robust cashflow and stronger credit metrics as a result of better operational performance in overseas entities (particularly EnergyAustralia) and lower debt gearing with early debt repayment after CAPCO/PSDC acquisitions and significant proceeds raised through the sale of the Iona Gas Plant.</p>		
<p>Potential further downgrade of EnergyAustralia’s credit ratings</p> <p>EnergyAustralia’s business and credit rating is looking more positive, particularly after the sale of Iona Gas Plant, proceeds of which help strengthen the balance sheet and lower financing cost after debt repayment.</p>	 <i>Maintained BBB- with outlook revised to stable from negative in May 2015</i>	<ul style="list-style-type: none"> Review business strategies, revisit capital structure and lock in long-term funding to ensure liquidity. Sufficient undrawn debt facilities to meet calls for credit support by counterparties in case of a further downgrade. Repay (part of) debt with proceeds of divestment.
<p>Group’s liquidity risk of inadequate funding</p> <p>The Group’s liquidity remains strong through completion of cost-effective financing and diversified refinancing initiatives.</p>	 <i>Credit rating outlooks of CLP Holdings and CLP Power Hong Kong revised to stable from negative in May 2015</i>	<ul style="list-style-type: none"> Maintain current dividend practices, good investment grade credit ratings, and adequate liquidity. Solicit adequate and cost-effective funding in advance and maintain an appropriate mix of committed credit facilities. Ensure funding diversification (sources, instruments, currencies and tenor). Maintain good, long-lasting relationship with lenders.
<p>Foreign currency risk associated with the Group’s investments</p> <p>The Group is exposed to transaction and translation exchange rate risks, particularly Indian rupee, Renminbi and Australian dollar, and the associated financial cost risks. Group level earnings may also be impacted by marked-to-market fair value gains/losses as some of the economic hedges are classified as “ineffective” according to Hong Kong Financial Reporting Standards.</p>	 <i>Currency volatility has become a market norm</i>	<ul style="list-style-type: none"> Hedge currency exposures in line with Group Treasury Policy. Natural hedge by matching currency of revenue, cost and debt. Project level debts to be denominated in and/or swapped into functional currency where possible.
<p>Default of Group’s financial counterparties</p> <p>Inability to enforce financial derivatives for hedging CLP’s economic obligations. Exposures relating to unrecoverable amounts from financial counterparties.</p>	 <i>Event risks overhanging</i>	<ul style="list-style-type: none"> Transact only with creditworthy and pre-approved financial institutions. Allocate exposure limits based on bank’s credit standing to avoid over-concentration whilst maintaining meaningful competition. No recourse to CLP Holdings for counterparties of subsidiaries and affiliates.




 Risk level increased

 Risk level decreased

 Risk level remains broadly the same

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Risk Description	Changes in 2015	Key Risk Mitigations
Commercial Risk – Commercial disputes with offtakers in India over the implementation of power purchase agreements may take time to settle.		
<p>EnergyAustralia's Mount Piper coal supply</p> <p>Mount Piper is supplied by the Springvale mine. State and federal approvals underpinning ongoing operations of the mine were granted in 2015.</p> <p>Continuing supply of coal remains subject to environmental, economic, geological, operational, delivery and credit risks.</p>	<p><i>New</i></p>	<ul style="list-style-type: none"> Collaborate with the Springvale joint venture to mitigate ongoing sources of environmental, economic, geological, operational, delivery and credit risks. Engage with local community and other stakeholders on long term regional sustainability. Contingency planning for potential supply disruptions affecting dispatch levels.
<p>Major commercial disputes with offtakers over Power Purchase Agreements (PPAs) in India</p> <p>Paguthan's Deemed Generation Incentive litigation is pending a Supreme Court hearing. An adverse judgment may require CLP India to pay all previously time barred amounts in addition to amounts already paid.</p> <p><i>(See contingent liabilities disclosure on pages 240 to 241.)</i></p> <p>Jhajjar's disputes with offtakers over applicable tariff, energy charges, and availability penalty are pending dispute resolution through adjudication.</p>	<p> <i>Pending court hearing / adjudication</i></p>	<p>Paguthan's Deemed Generation Incentive litigation</p> <ul style="list-style-type: none"> No further mitigations anticipated. <p>Jhajjar's disputes with offtakers</p> <ul style="list-style-type: none"> Dispute resolution through adjudication process of Central Electricity Regulatory Commission (CERC). Provisions to be made as appropriate.
<p>Risk of PPA renegotiation / extension at Paguthan</p> <p>Given the non-availability of gas at affordable prices, the offtaker is unwilling to schedule dispatches.</p> <p>CLP India won two rounds of auctions by the Federal Government on subsidised imported gas. The supply commenced in June 2015 and will continue until March 2016, translating into lower costs for our customers and higher dispatches.</p>	<p> <i>Successfully in bidding for subsidised imported gas</i></p>	<ul style="list-style-type: none"> CLP India, in conjunction with the offtaker, will continue to participate in subsidised imported gas bidding scheme. Monitor gas supply situation and try to obtain domestic contracts when available. Paguthan's development options upon PPA expiry being reviewed.
<p>Volatility of fuel costs for Hong Kong business and challenge of tariff adjustments</p> <p>Rising costs of our Hong Kong business, particularly higher fuel costs as a result of increasing gas consumption necessary to meet emissions standards, create increasing tariff pressure in the longer term.</p> <p>Public expectations for tariff reductions will be high in terms of lower energy prices given the recent decreases in international fuel prices.</p>	<p> <i>Special one-off fuel rebate for the first half of 2015 and Average Total Tariff reduction of 0.9% concluded for the 2016 Tariff Review</i></p>	<ul style="list-style-type: none"> Implement optimal fuel mix strategy. Mitigate gas price volatility with supply diversification. Exercise stringent cost management. Help customers mitigate tariff impact. Continue to enhance energy efficiency and conservation initiatives. Step up stakeholder engagement efforts.
<p>Counterparty risk of Indian distribution companies</p> <p>Offtakers' ability to meet their PPA obligations.</p>	<p> <i>Experiencing some delays in receivables only</i></p>	<ul style="list-style-type: none"> Monitor the credit ratings and financial health of State utilities with particular focus on their implementation of approved debt restructuring package and payment records. Follow up with utilities at a commercial level and escalate to senior level when required.

Risk Description	Changes in 2015	Key Risk Mitigations
<p>Industrial / Operational Risks – Operational issues continued to challenge Jhajjar as the supply of domestic coal improved in volume but remained very substandard in quality. CLP is continually focusing on preventive measures and remediation relating to safety, emissions compliance, fuel supply, plant performance, human capital, data privacy, cyber-attack and increasing occurrence of extreme weather events.</p>		
<p>Major accident at construction or operating plants</p> <p>With new construction sites in China and India, there is increased incidence risk of contractors' safety management.</p>	 <i>Improving safety performance</i>	<ul style="list-style-type: none"> Implement CLP Group Health, Safety, Security and Environment (HSSE) Management System and related standards and guidelines, including the Critical Risk Standards, to enhance the awareness of both employees and contractors (see more details on pages 88 to 92).
<p>Uncertainty in Jhajjar's plant performance</p> <p>Current concerns include capability of the plant to operate in a trouble-free manner if it has to run on 100% domestic coal instead of blending with imported coal.</p>	 <i>Planning for plant modification in progress</i>	<ul style="list-style-type: none"> Major plant modifications to be implemented in line with the schedule of major overhauls with target completion by mid-2018. Continue to strengthen asset management. Completed review of the coal handling plant. Earlier issues related to coal handling and boiler tube leakage are under control.
<p>Performance risk of wind power projects across the Group</p> <p>Our coastal wind projects in Shandong province of Mainland China continued to achieve performance consistent with our long-term expectations. Grid curtailment affected our projects in northeast China as well as Tamil Nadu and Rajasthan in India.</p>	 <i>Grid curtailment in certain areas continued to be a key challenge</i>	<ul style="list-style-type: none"> Improve wind yield estimation and operational data analysis. Conduct forensic analysis. Proactively engage with the Government and grid companies advocating for more dispatch. Seek contractual protection by warranty, plant availability guarantee and power curve performance guarantee.

 Risk level increased

 Risk level decreased

 Risk level remains broadly the same