




Group

Climate Change

CLP's climate strategy has a fundamental impact on our business strategy because a low carbon generation pathway translates into a departure from business-as-usual. The numbers speak for themselves - we moved from a company with just over 1% renewable energy in our portfolio in 2004, to over 16% in 2010 (over 20% non-carbon emitting including nuclear power).

Our experience so far has provided a clear indication that we can proceed with our climate strategy faster than originally anticipated. We have therefore reviewed our 2020 targets to further reduce our CO₂ emissions intensity, and to increase our non-carbon emitting generation portfolio:

	Original Targets	New Targets
2020 Carbon Intensity:	0.7kgCO ₂ / kWh	0.6kgCO ₂ / kWh
2020 Renewable Energy Target:	–	20%
2020 Non-Carbon-Emitting Target:	20%	30%

These targets were published in "Our Journey to a Low-Carbon Energy Future" in December 2010 and can be downloaded from the CLP Group website (www.clpgroup.com). 

Our journey towards a low carbon generation portfolio so far has been taken with clear support from our shareholders, our lenders, and our stakeholders at large. We make our investment decisions based on the principles that they must be financially sound, deliver value to the societies we serve, and responsibly manage the associated environmental impacts. We believe the results to date have demonstrated the soundness of this strategy and we will continue along the same direction.

Safety


We will continue to aim at achieving improvements in our safety performance that will take us towards the goal of zero injuries. Our emphasis for 2011 is to implement safety initiatives at both the regional and site levels, and to turn learning into action plans that will strengthen accountability.

At the Group level we will apply resources to help reinforce safety skills, continue the learning process, and maintain an environment where everybody will think about safety for themselves as well as for others above anything else.

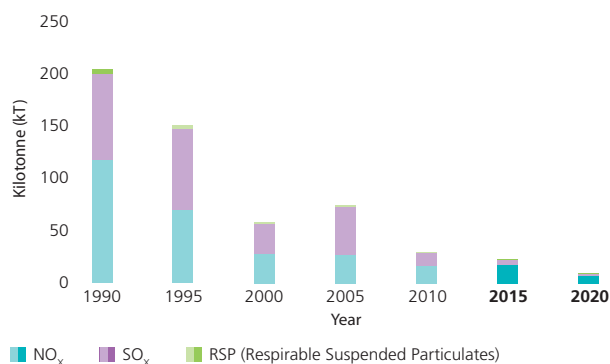




Hong Kong

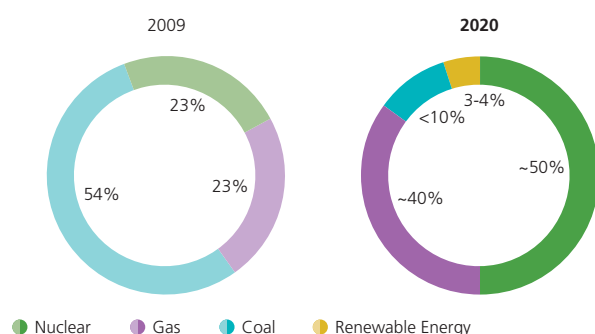
Our mission remains to provide adequate, reliable, cost effective and environmentally responsible electricity supply to Hong Kong. In the coming year, there will be a particular emphasis on supporting Government's policy objectives regarding fuel mix and emissions levels. Specific plans and activities envisaged for 2011 are described in the Annual Report. 

CLP Power Hong Kong Air Emissions from 1990 to 2010 and Projected Emissions to 2015 and 2020



The 2015 emissions projection is based on the HKSAR Government applicable emissions caps for the three power stations under Castle Peak Power Company in 2015. The 2020 emissions projection is based on the HKSAR Government's proposed fuel mix in the Hong Kong's Climate Change Strategy and Action Agenda, issued in September 2010.

Hong Kong's Fuel Mix for Power Generation in 2009 and Proposed Fuel Mix for 2020



Source: Hong Kong's Climate Change Strategy and Action Agenda, HKSAR Government, September 2010

Over the course of this decade we foresee that our Hong Kong electricity business will be categorised by:

- strengthened infrastructure integration with Guangdong, notably through the import of gas and nuclear power;
- a cleaner fuel mix, which will involve using more gas, importing more nuclear energy and reducing our reliance on coal, as well as promoting the use of local renewable energy sources to the extent that this is practical;
- the continued implementation of the inter-government MOU so that new, long-term gas supplies are brought to Hong Kong;
- the timely development of pipeline infrastructure and necessary arrangements and project implementation to bring new long-term gas supplies to Hong Kong;
- the promotion of energy efficiency – we will continue to help our customers to boost energy conservation through energy efficiency related services and public education, as well as offering advice on energy efficient products, better building design and optimal equipment selection for businesses;
- management of the ongoing capital expenditure which our business will require, both to timetable and within budget; and,
- excellence in operations at all times, including the effective management of critical business issues such as tariff levels and environmental performance.

Australia

The Australian electricity sector has been privatised in recent years, but government policy remains a major impact on the business environment:

The Federal government has been contemplating legislation to reduce greenhouse gas emissions in response to the threat of climate change. There are uncertainties surrounding the Federal government's carbon policy design and pricing mechanism. Our fully owned Australian subsidiary TRUenergy, has been actively participating in this policy debate through offering constructive and fair-minded opinions and suggestions to the Australian government. We will continue to engage with the Australian government leading up to it finalising its carbon mechanism by the end of 2011.

Furthermore, the Federal and State authorities play an active role in energy policy which relates to renewable energy. Although the Australian governments have moved away from ownership of electricity infrastructure, they have remained highly engaged in the related fields of greenhouse gas emissions, promotion of renewable energy and energy efficiency. One example is Australia's Mandatory Renewable Energy Target Scheme (MRET), which commits the Federal government to achieving a 20% share for renewable energy in Australia's electricity mix by 2020. This target has further been split into Small-scale Renewable Energy Scheme and Large-scale Renewable Energy Target since January 2011. TRUenergy will need to pursue long-term contracts with renewable energy projects, so that we can procure the renewable certificates which we, as an electricity retailer, are obliged to acquire under this scheme.

The Australian Federal and State policies are aligned with CLP Group's own Climate Vision 2050 target of making massive reductions in the carbon emissions intensity of our generating portfolio. TRUenergy will continue to implement its own climate strategy, which will contribute to the overall CLP Group climate strategy. We will continue to pursue a lower carbon portfolio in renewable energy including solar energy.

Chinese Mainland

The current 11th Five Year Plan and supporting policies such as feed-in tariffs for renewable energy demonstrated the active promotion of energy efficiency, renewable energy and the accelerated development and deployment of new energy technology. Apart from investing as minority shareholder in wind farm projects, we have successfully developed and commissioned CLP's first wholly-owned wind project in the Chinese Mainland, the 49.5MW Qian'an I project. On hydropower, our 330MW Jiangbian hydropower project's construction work has also been progressing well, despite the physical and technical challenges the site presents. We are going to leverage on these experiences to move forward in developing renewable energy in the Chinese Mainland.

On the other hand, high coal price from the start of 2010 and the coal market price being predicted to be unstable in 2011 onwards have added to our operational risk. Going forward, we plan to manage this risk through reducing coal prices by pursuing long-term coal supply contracts and sourcing alternative coal supplies. With a healthy tariff for coal-fired plants in the Chinese Mainland, this line of business will remain profitable. However in 2010, we have made a move to rationalise our asset ownership in coal-fired projects in the Mainland. The divestment of Anshun II Power Station which we held a 70% ownership was a case in point. This is aligned with the Group's strategy, expressed in our Climate Vision 2050, of reducing the carbon emissions intensity of our generating portfolio.

The PRC government will continue to support the development of clean electricity generation during future planning cycles, whether this is in the form of renewable energy, nuclear power or more efficient coal-fired plant. CLP has already adjusted its Chinese Mainland strategy to position itself in line with this move towards cleaner electricity generation, as part of the Group-wide policy of reducing the carbon intensity of our generation portfolio. Over the coming three to five years CLP aims to re-balance its portfolio from one centred on coal-fired generation to one which prioritises low carbon emissions. To do this, CLP intends to consolidate and rationalise its assets ownership and structures for coal-fired projects, and to pursue clean and renewable energy sources in the Mainland, including wind, hydro and nuclear power.



India

The growth of electricity demand in India and the accompanying need for large-scale investment in generation and transmission infrastructure, combined with CLP's experience in all aspects of the power industry and our growing reputation in India, means that a wide range of investment opportunities are available to expand our business.

Environmental policies and regulations in India are emerging although the scope and pace will continue to vary from state to state. There is opportunity for us to influence local standards by introducing and sharing our best practices and standards. Our experience in successfully bidding for the Jhajjar Power Station project, entered with voluntary inclusion of flue gas desulphurisation emission control technology and safeguarded for incorporation of carbon capture technologies when available, has given us confidence in our ability to win projects while also being environmentally responsible. We will continue developing coal-fired plants in developing countries that achieve our Group's environmental standards, and anticipate possible participation in the bidding for another large coal-fired power project in the coming years.

Seeing the potential market opportunities arising from climate change, the government seems keen on setting policy directions to encourage the development of renewable energy, particularly since there are significant natural resources present. We can support policy makers in their challenging job of developing efficient and effective policies for today's fast changing environment by sharing our experiences on which policies encourage commercial viability and which do not. Hence, there is opportunity for CLP to develop more renewable energy projects in India. CLP is currently the largest external investor in wind energy in India. We will continue to invest in wind energy projects, so as to retain our position. We will also continue with bids for transmission and hydro power projects to diversify our asset portfolio, and explore early opportunities for participation in the development of solar energy in India.

To maintain our growing reputation and commitment to being a responsible company, we will continue to invest in communities and engage local stakeholders in a way that helps strengthen and maintain long lasting relationships between CLP and the local communities we serve.



Mr. B. K. Batra

Climate change has become a vital issue in recent years. As the thermal power sector is one of the major factors contributing to global warming, what initiatives does CLP plan to take to reduce carbon emission levels? What are the plans of CLP to diversify into the green energy sector in India?

Executive Director, IDBI Bank

CLP's Climate Strategy developed in 2007, has become very much a core element of our business strategy. The centre of this strategy is our commitment to reduce the CO₂ intensity of our generating portfolio from 0.84kg CO₂/kWh (as of 30 June 2007) to a progressively lower carbon portfolio with an intensity of 0.2kg CO₂/kWh by 2050. As of 31 December 2010, we have already achieved our first target of reducing the portfolio carbon intensity to 0.8 kg CO₂/kWh. The reduction in carbon intensity was mainly achieved through the continued expansion of our non-carbon emitting portfolio and increased use of natural gas. In light of our promising performance to date, we have set tougher targets for our next milestone in 2020, of 20% renewable energy capacity, 30% non-carbon emitting generating capacity and a carbon intensity target of 0.6 kg CO₂/kWh.

As for India, we are already the largest external investor in wind energy, with a portfolio of over 480 MW of wind energy capacity and more expected in the next few years. We are also exploring the opportunity to participate in the deployment of solar energy in India. Gujarat and Rajasthan have the best solar resource in India, as well as supportive state-level policies. It is there that we are likely to focus our efforts.



Rajiv Mishra

Managing Director – India



Southeast Asia & Taiwan

In the past, environmental regulations in this region seemed to be emerging at a relatively slower pace compared to the larger emerging economies. However, with the onset of global climate change concerns and related possible access to international funding (such as from the United Nations or developed countries), this trend may change. Certain governments in this region may consider their potential for leapfrogging into the future, such as by passing rapidly from conventional sub-critical coal-fired generation directly to a cleaner portfolio characterised by gas-fired generation and renewable energy. Combine that with the business environment uncertainties that can be created by varying policy-making approaches, we must continue to monitor and incorporate these possible risks while pursuing our opportunities.

There may be opportunities in developing Southeast Asian countries for further greenfield projects where CLP is able to apply its abilities to engineer, construct and operate. This is a market where we need to be selective in all aspects of risk and return and only move forward on projects that provide security of cash flow from the Power Purchase Agreements, pass through fuel costs and where the cost of electricity is affordable. These are the necessary preconditions for us to develop the two coal-fired projects in Vietnam, just as much as there would be for any other projects which would come forward in the future. We would also be open to opportunities to develop more renewable energy projects wherever the value of low carbon generation is recognised and stable, supportive government policies are in place.

