CEO's Strategic Review

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> **Richard Lancaster** Chief Executive Officer



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With all the unpredictable events that occurred across the world in 2016, from the UK to the US to China, it will likely be remembered as a year of uncertainty. On top of this, we are seeing disruption in our industry as the world addresses the challenges posed by climate change and technological evolution. There were also incidents of major power blackout in different parts of the world and in Australia in particular which served as a reminder, if needed, of the importance of making the right investment to ensure supply reliability.

CLP is not immune from these global forces and yet despite these significant influences we have continued to operate our businesses steadily and reliably across the portfolio, thus delivering dependable growth. I would therefore like to make use of this Strategic Review to set out how each of our businesses fared across the five major markets last year, and how CLP is well-positioned to face the challenges and seize the opportunities in markets where we operate.

Hong Kong

Although our home base Hong Kong is seen by some as a mature market, we still see an increase in demand for electricity and its related delivery infrastructure. This is driven by a growing population and customer base as well as major infrastructure developments such as the expanding MTR network, the high-speed rail link and the Hong Kong-Zhuhai-Macao Bridge. We are always seeking better ways to serve our customers and are leveraging rapidly changing technology to provide them with more innovative solutions. As such, our business continued to grow steadily and we have consistently maintained a world-class reliability and safety record. Operating earnings from our local electricity business increased 4.6% to HK\$8.640 million.

During the year, we made good progress in two new investment opportunities. Approval to construct a new gas-fired generation unit at Black Point was obtained and an environmental impact assessment study of an offshore liquefied natural gas (LNG) terminal in Hong Kong waters commenced. These projects will go a long way towards reducing carbon intensity in Hong Kong and strengthening the city's energy security in support of the Government's 2020 fuel mix objective and its new 2030 climate target.

We would be less able to make these investments if not for the stable operating environment in Hong Kong. Regulatory clarity and a reasonable return are our shareholders' most basic considerations when it comes to endorsing long-term investment plans. The SoC has been an effective framework that helps ensure the right investments are made to meet community aspirations and the steady, progressive development of Hong Kong. Discussions with the Government over a new SoC Agreement are underway and we look forward to a regime that will allow us to continue to serve Hong Kong and contribute to the Government's long-term energy objectives.

Mainland China

During the year, the slowing economic growth and electricity demand in Mainland China impacted our business, with our coal-fired projects being the most hard hit. By contrast, our renewables business held up well and performance at Daya Bay Nuclear Power Station was strong. Taking these factors into account, operating earnings in 2016 dropped from HK\$1.977 million to HK\$1.521 million.

The decline in our coal-fired generation business was driven by three major factors which included lower utilisation, higher coal costs and reduced tariffs. We have sought to mitigate the pressure on utilisation by participating in direct sales programmes at discounted tariffs and will continue to do so in the coming year.

Towards the end of the year, we announced our investment in Yangjiang Nuclear Power Station. The transaction is expected to be completed in a few months. Daya Bay's excellent operational and safety performance over the years has allowed us to develop nuclear power in China with great confidence. The Yangjiang investment is set to provide a stable and reliable stream of earnings in a sector that has strong policy support from the Central People's Government. This investment underscores our belief that nuclear power as a zero carbon technology will play a pivotal role in China's energy transition.

In 2016, we expanded our renewable capacity by 275MW. This lifted the size of our renewable portfolio in Mainland China to over 2,000MW. At the same time, we commissioned Phase II of Fangchenggang Power Station in Guangxi Zhuang Autonomous Region which utilises the cleanest and most advanced ultra-supercritical coal technology to ensure it meets the latest environmental regulations.

India

In 2016, our coal-fired Jhajjar plant and gas-fired Paguthan project reported steady operational performance. Jhajjar achieved a record availability of 93% and Paguthan 94%. However, we reported a drop in operating earnings to HK\$469 million because we booked several one-off gains in 2015 that were not repeated in 2016.

During the year, we continued to develop our renewable energy portfolio and construction of our maiden solar project in southern India is progressing. The electricity produced by our wind farms in 2016 was 16% higher than in 2015 due to additional capacity added in the second half of 2015. The

commissioning of these new projects has consolidated our position as one of the biggest renewable energy developers in India. Although India is still a coal-dependent country, it has been making clear moves to reduce dependency on fossil fuels. As a clean energy advocate, CLP will continue to support this policy by making further investments in the renewable energy sector. This is also where we see our long-term growth opportunities.

Southeast Asia and Taiwan

During the year, our operational performance in Southeast Asia and Taiwan continued to be strong. However, operating earnings decreased slightly to HK\$274 million in line with Ho-Ping's tariff adjustment that reflected the lagging effect of lower coal prices in the prior year. I am also happy to report that development of our two coal-fired projects in Vietnam has progressed well.

Australia

While the operating environment in Australia's power industry remained challenging in 2016, EnergyAustralia's financial performance continued to improve. Our strategy

that puts customers first, together with high availability and power production from our generation facilities in a tightening wholesale electricity market, has enabled us to deliver improved operating and financial results. During the year, operating earnings more than doubled to HK\$1,849 million. The reduction in debt following the Iona sale has also had a positive impact reducing overall interest costs.

I am glad to report continuing progress in our retail business. The number of EnergyAustralia's customer accounts remained stable in an intensely competitive environment. Most importantly, our customers are staying longer, churn was lower and there were fewer complaints, reflecting improvements in service.

In ongoing support of our business, last December, EnergyAustralia announced it would sign agreements that underpin the development of around 500MW of new wind and solar energy projects across eastern Australia. This confirms our significant support of the country's renewable energy developments and EnergyAustralia's commitment to the Australian Government's Renewable Energy Target to



Does CLP have any plans to make a complete shift to natural gas in its power generation in Hong Kong?

> The way we produce electricity needs to transition over time to reduce carbon emissions. There are many low or zero carbon technologies in the market, but each economy will have different choices to make based on the available resources, land availability, affordability and so on. Another very important consideration is maintaining a reliable electricity supply which requires some diversity in the technologies used.

> For Hong Kong where we have few natural resources, limited land availability and where the reliability of our electricity supply is of utmost importance, the choices are more limited than in other parts of the world. Shifting to using more natural gas as a fuel will reduce carbon emissions and if natural gas supplies can be secured at affordable levels, which we believe they can through a combination of pipeline gas and LNG, then this is a sensible option for Hong Kong. However we should never become overly reliant on a single fuel source or technology, so nuclear power, which already provides 25% of Hong Kong's electricity, should be kept as an option.

Outside Hong Kong, CLP will deploy a range of technologies including wind and solar power and clean coal technologies to support the transition to low carbon energy across Asia.



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achieve 23.5% of total energy in the national electricity market provided by renewable energy by 2020.

However, there are wider issues to be addressed in the Australian wholesale energy market. The blackout in South Australia last September is a painful reminder of the need for a holistic, stable and coordinated national energy policy. We would like to see a national plan to manage the switch from a coal-dominated energy supply system to a cleaner one that balances environmental issues with affordability and reliability.

Safety

Safety is our first priority and our goal is to have zero injuries at each of our sites. Although we continued to reduce our injury rates in 2016, sadly three of those injuries were fatal incidents at sites under our operating control. All involved contractors with two of the incidents relating to falls from height and the other an assault on a security guard at a remote location. Even one life lost is one too many, and I would like to take this opportunity to express my deepest sympathy to the families of the deceased. We have investigated all the incidents and devised a course of actions to improve our safety practices and enhance contractors' knowledge and competence to avoid similar events in future.

The Forces Behind

The power industry has seen a great deal of change over the decades and has been a key element in the support for the economic growth and community development seen around

the world. Today, there are two driving forces that offer opportunities and risks to which the industry must respond: the energy sector's important role in tackling climate change, and the opportunity to harness the digital revolution and to put it to work for the energy industry.

Climate Change

We are glad to see that the Paris agreement on climate change has been ratified, and that a much faster rate of decarbonisation is taking place internationally. However, the power industry alone cannot meet the agreed climate change mitigation targets. Meeting the challenge will require collaboration by industry, government and civil society alike.

We need to have in place three key elements: a sustainable set of regulatory structures that facilitate the transition to a cleaner energy mix; financing mechanisms to support that change; and conventional and renewable energy sources that are reliable and affordable. While the power industry is ready to roll up its sleeves and do its part, we must also accept that different parts of the world will require different solutions. In developing economies, coal will inevitably remain a vital primary energy source for some time. For our part, CLP is committed to supporting the different choices made by the governments of the communities where we operate and to delivering the cleanest solutions based on the choices those countries make.

We look forward to continued and active involvement with governments to help formulate the regulations required



Smart Charge offers electric car owners one-stop charging solution as we continue to grow our business and support Hong Kong's smart city development

to facilitate this energy transition. From a Hong Kong perspective, we welcome the vision the Government has shown us by setting a new target for carbon intensity reduction by 2030 and providing a well-defined roadmap for the city's transition towards a low carbon future.

Innovation

CLP is more than 115 years old. Over the years, we have gone through tremendous changes but we are still prospering. This is because we have been adaptable. The digital revolution is changing the face of our industry and offers many exciting opportunities. We no longer think of electricity as the only product we offer our customers. Our business is about the quality of our services, the variety of our products and the commitment we make to our customers. With technological advancement and increasing competition, we are faced with disruption in a way that is all too familiar in other industries.

Our business in the next five to ten years may be very different to what it is today. We will be part of the smart infrastructure in the city, and we need to be proactive in playing that role. We need to build our capability and develop a strategy to manage data on a very large scale. We also need a platform so that all of the smart devices can plug into our electricity system. All of that will need to happen on our grid and right across our business.

We have already set up an innovation team to work on these areas and good progress has already been made. Our focus is twofold. First, we aim to leverage all these technologies and information to get better at what we do. We are looking across all our assets and examining how digital technology platforms can help optimise the performance of our generation fleet. The other focus is developing new areas for our business. An example of this is the Smart Charge initiative with HKT. There are more than 7,000 electric vehicles in Hong Kong, more than many cities in the world. Our joint venture's one-stop charging service provides owners and drivers with the convenience and security they need. In a business sense, Smart Charge recognises the different ways we can grow our business while contributing to Hong Kong as a smart city.

We also made an exciting new investment in Australia in Redback Technologies which combines smart home technology with battery storage. EnergyAustralia continues to examine a wide range of opportunities for customers, so the business is capable of thriving as the energy sector evolves. After all, for any business to be successful, we must develop products and services that meet the ever increasing expectations of our customers.

Outlook

Our strategy that centres on "Focus · Delivery · Growth" has worked well for us in the past two years. Looking ahead, we will continue to invest in Hong Kong, our home. As in the past, we will work hard to provide the reliable and safe electricity supply that our customers deserve. Similarly, we will concentrate our resources on measures to lower emissions in order to support the Government's climate policy objectives through innovative solutions and create a greener Hong Kong for all.

We are confident that a new SoC will provide the clarity we need to meet the challenges of the coming years. We are equally confident that Hong Kong's infrastructure needs and developments will bring about new demand for our products and services.

Outside Hong Kong, we will continue to explore investment opportunities in Mainland China and India - our two major growth markets - primarily in non-carbon generation. In Vietnam, where the demographic and economic growth present a strong need for new low-cost generation capacity, we will look to conclude our Vung Ang II and Vinh Tan III projects. In Australia, we will continue our value restoration programme with a focus on our customers, new products and partnerships in innovative energy-efficient technology, and the orderly transition to a cleaner and lower-emission generation sector.

Our "Climate Vision 2050" is a solid foundation for CLP to support the objectives set out in the Paris Agreement. We will work assiduously with our stakeholders to forge ways to help bring the agreement to reality. And we are preparing with a careful and innovative approach for the opportunities and challenges we see presented by the digital revolution.

CLP has a long history of growth and financial stability and there is every reason to believe that this credible record will continue long into the future.

Richard Lancaster

Hong Kong, 27 February 2017

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