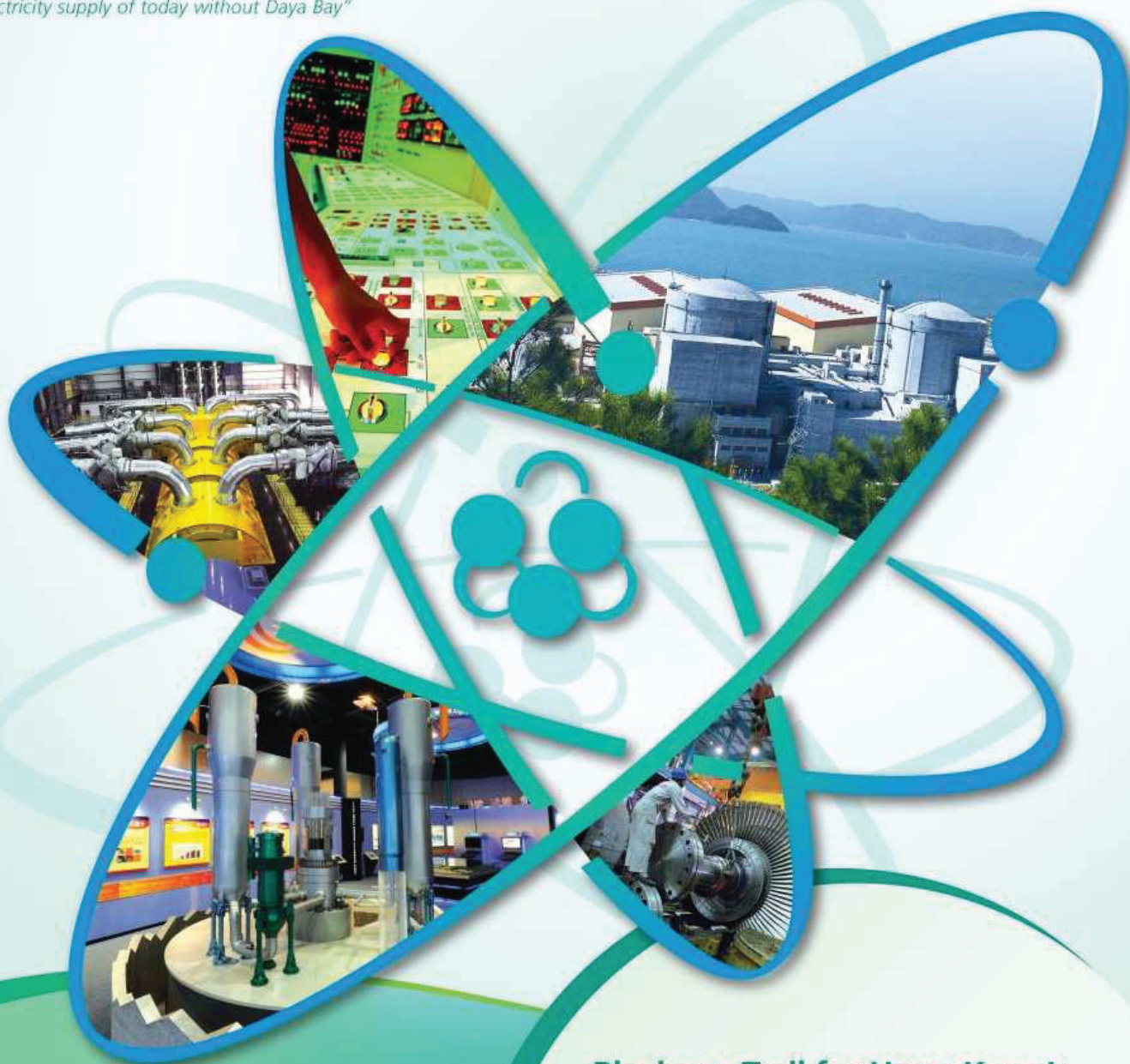


DAYA BAY NUCLEAR POWER STATION

A fusion of effort, a yield of achievement

"About a third of CLP's current energy mix is sourced from Daya Bay and it is hard to imagine Hong Kong's clean electricity supply of today without Daya Bay"



The birth of the Daya Bay Nuclear Power Station

In 1985, the Chinese Government and China Light and Power (CLP) joined hands to develop the Mainland's first commercial nuclear power station at Daya Bay in Guangdong Province. The Guangdong Daya Bay Nuclear Power Station (Daya Bay) was China's landmark international joint venture and marked CLP's first expansion beyond Hong Kong's shores, bringing multi-national expertise to work on a project of immense scale and complexity. Today, Daya Bay is a showcase of achievements, and exemplifies both operational excellence and innovative business collaboration.

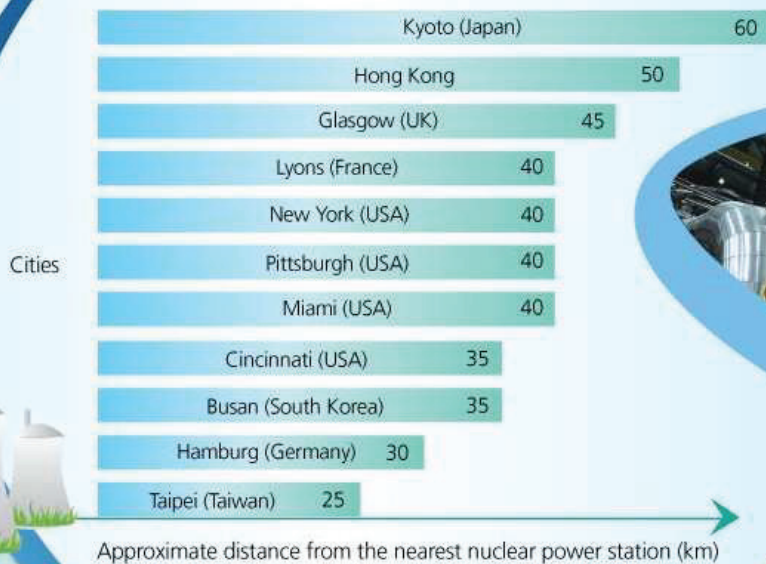
Blazing a Trail for Hong Kong's Clean Energy Generation

The Daya Bay project was CLP's first step into low emission power generation. Nuclear power produces virtually no emissions. Since the commissioning of Daya Bay, CLP has reduced CO₂ emissions in Hong Kong by approximately 110 million tonnes. Nuclear power plays a role in enabling CLP Holdings achieve its pledge to reduce the carbon emissions intensity of its generating portfolio by 75% by 2050 as stated in Climate Vision 2050, and realize CLP's Energy Vision, its roadmap for greener power generation for the Greater Pearl River Delta in the next 10 years.

Do you know...

1

Daya Bay is located 50 km from Tsim Sha Tsui which is about four times the length of Hong Kong's Mass Transit Railway (MTR) Island Line. It takes approximately two hours to travel from Tsim Sha Tsui to Daya Bay by car. The location of the nuclear power station is relatively far from Hong Kong when compared to other major cities in the world.



2

The Daya Bay site, which includes nuclear power facilities, amenity complexes and parkland, can fit in ten Victoria Parks.



4

Daya Bay employs 900 people, of which 70% are university graduates. The average age of the team is early 30s.

The Daya Bay Nuclear Power Station Joint Venture Contract

The current supply contract, which Hong Kong receives 70% of the nuclear electricity generated from Daya Bay, has a term up until May 2014. In September 2009, the contract has been extended for an additional term of 20 years to 2034, enabling Hong Kong to enjoy a continuous supply of clean power from a reliable and secure source.

3

The station's annual supply to Hong Kong can power over 2.4 million homes for one year.

Structure of the Daya Bay Joint Venture

The Guangdong Daya Bay Nuclear Power Station is owned by the Guangdong Nuclear Power Joint Venture Company Limited (GNPJVC). Hong Kong Nuclear Investment Company Limited (HKNIC), which was founded in 1983, holds 25% equity interest in GNPJVC. A sister company of HKNIC has partial ownership of the power station operator, the Daya Bay Nuclear Power Operations & Management Company Limited. HKNIC is a wholly-owned subsidiary of CLP Holdings, a company listed on the Hong Kong Stock Exchange.

6

This tree, planted by the original inhabitants, on the Daya Bay complex, is over 150 years old! It greens the environment and is a testimony of the well protected environment around Daya Bay.

5

All staff are given medical checks every year. In addition to being given radiation monitoring equipment to ensure their health and safety during radiation work, staff are given radiation checks after each access to the nuclear islands. If the radiation is higher than a certain level, a monitoring device will be alerted.

The Daya Bay

project includes nuclear technology and project management from France, turbine generators from Britain, capital from Hong Kong and Chinese Mainland plus civil engineering work from the latter.

A Role Model for Operational Excellence

Over the past 15 years, Daya Bay has been a showcase for operational, project management and technological excellence. Quality management and governance, impeccable safety and environmental management, effective emergency response, unparalleled technology transfer, and a professional, dedicated staff have all contributed to Daya Bay's achievements since its inception.

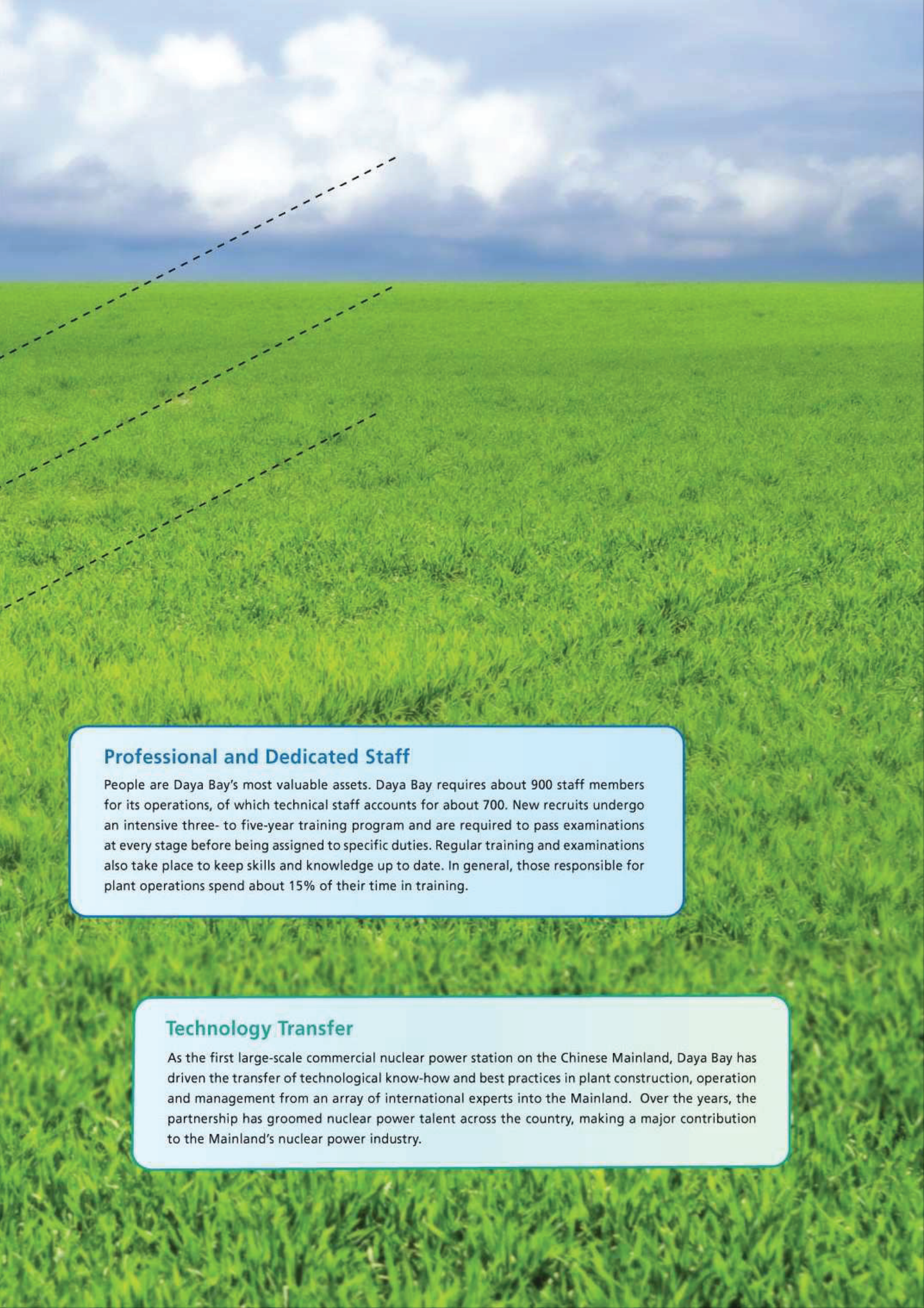
Quality Management

Daya Bay follows the best practices outlined by the International Atomic Energy Agency (IAEA) and World Association of Nuclear Operators (WANO) and its performance is subject to reviews by these two organizations to ensure high operational standards.

Safety Records and Environmental Performance

Daya Bay's operations are continuously monitored by the National Nuclear Safety Administration, which follows national regulations that are in line with international guidelines and practices. Over the years, Daya Bay's good performance has continued to earn prestigious awards and recognition in nuclear safety and radiation protection for pressurized water reactor units against competitors from France, Belgium and South Africa.

A comprehensive environmental monitoring programme is also in place at Daya Bay to protect the health of its staff and neighbouring communities. The Hong Kong Observatory, which monitors radiation levels around the clock, has reported no increase in the level of radiation since the plant's inception. Daya Bay has been ISO 14001 certified for environmental management since 1999, signifying its long-term commitment to environmental management.



Professional and Dedicated Staff

People are Daya Bay's most valuable assets. Daya Bay requires about 900 staff members for its operations, of which technical staff accounts for about 700. New recruits undergo an intensive three- to five-year training program and are required to pass examinations at every stage before being assigned to specific duties. Regular training and examinations also take place to keep skills and knowledge up to date. In general, those responsible for plant operations spend about 15% of their time in training.

Technology Transfer

As the first large-scale commercial nuclear power station on the Chinese Mainland, Daya Bay has driven the transfer of technological know-how and best practices in plant construction, operation and management from an array of international experts into the Mainland. Over the years, the partnership has groomed nuclear power talent across the country, making a major contribution to the Mainland's nuclear power industry.



Q1. How does nuclear power benefit Hong Kong?

Supply from Daya Bay is a clean energy which produces zero emissions. Since its commercial operation, Daya Bay has reduced about 110 million tons of CO₂ emission in Hong Kong.

At present, the import of nuclear power from Daya Bay meets about one-third of CLP's customer needs, contributing to CLP's highly reliable supply of electricity to customers.

Power purchase from Daya Bay gives a competitive, steady, and relatively more predictable tariff path than other fossil fuel electricity generation options which are much more susceptible to the volatility of international fuel prices.

Q2. What measures are taken to ensure the safety and environmental performance of Daya Bay?

Daya Bay is operated in accordance with best practice as recommended by the International Atomic Energy Agency and World Association of Nuclear Operators. It has an excellent record of plant reliability, performance and safety. It compares favourably for safety and operation with other nuclear power generating units in the world.

It undertakes regular inspections of its equipment, monitoring of radioactive release to the environment and the implementation of safety measures.

Its operation is continuously monitored by the national nuclear safety regulator based on China's national rules which are in line with international guidelines and practices.

It maintains a comprehensive environmental monitoring programme to protect its staffs and the general public, and regular checks over the years have indicated that there has been no excessive or undue release of radioactivity. It has been ISO 14001 certified since 1999, signifying its commitment to environmental management.

Q3.

How does Daya Bay ensure a secure power supply to Hong Kong?

At present, 70% of Daya Bay's output is delivered to Hong Kong, which is equivalent to about 25% of electricity consumption for the whole of Hong Kong. The two reactors are capable of independent operation and the station has never encountered a simultaneous supply loss from both units. Therefore, a total loss of supply is highly unlikely.

In addition, power from Daya Bay can be delivered to Hong Kong along several transmission lines taking different geographical routes. A simultaneous disruption of all these routes is very unlikely.

In the unlikely event of a disruption of supply from Daya Bay, either because of a planned outage or an unplanned shutdown, customers would not be affected as CLP can immediately bring in backup capacity.

Q4.

What steps will be taken when Daya Bay comes to the end of its life span?

Daya Bay has an expected life span of at least 40 years, after which the station will be withdrawn from operation and decommissioned.

Decommissioning will involve removing the nuclear fuel from the reactor for storage and subsequent reprocessing, leaving the reactor building and its contents alone for several decades to allow their radioactivity to fall, after which the building would be dismantled and its radioactive components disposed of in a dedicated storage site.

Q5.

How is spent fuel handled?

The owner of Daya Bay (i.e. GNPJVC) is responsible for spent fuel handling. It transfers the spent fuel to a national service provider who will reprocess it in the Mainland in accordance with national policy. The operation of the service provider is supervised by the National Nuclear Safety Administration and its environmental impact is monitored by the State Environmental Protection Administration.



大亚湾核电站延长合营期合同签字仪式

CLP is proud to play a role in the development of the Mainland and Hong Kong. Daya Bay was one of the earliest and largest projects launched under China's Open Door Policy and remains one of the successful. The longstanding partnership between CLP and CGNPC has laid a solid foundation for future collaboration in nuclear energy.

主办：国家发改委(国家能源局)

承办：中国广东核电集团有限公司 中电控股有限公司

2009.9.29 人民大会堂



A Future with Nuclear Power

The Daya Bay project is not only a pioneer of China's joint venture efforts with foreign investment, but also an exemplary success story. The many achievements of the Daya Bay operation have been made possible by the strong and long-standing partnership between CGNPC and CLP. The agreement between the two sides in 2009 to extend the Daya Bay contract for another 20 years signifies a wider and deeper partnership between CLP and Mainland enterprises in the energy sector and environmental management. Nuclear power will remain a centerpiece of our Energy Vision.

CLP is exploring the possibility of sourcing more nuclear power from the Mainland after our success in securing the extension of the Daya Bay contract for another 20 years. In addition, the company will continue to explore further nuclear development opportunities in the Mainland. Supporting the vision for greener power generation in the Greater Pearl River Delta, CLP is committed to working with its Mainland partners on further developing non-carbon emitting energy to benefit the economy and environments of Hong Kong and Guangdong.

1979

CLP's 132kV power link is switched on, kicking off discussions about building China's first commercial nuclear power station under the Open Door Policy

1985

Joint venture contract between the Mainland government and CLP is signed, accounting for about 1/3 of China's foreign reserves at the time.

1988

Nuclear Safety Consultative Committee is established in response to public sentiment in Hong Kong

1994

Daya Bay, which supplies 70% of its nuclear power to Hong Kong, is commissioned, accounting for about 1/3 of CLP's energy mix.

2007

CLP publishes Climate Vision 2050 which pledges to increase CLP's nuclear and renewable energy portfolio to 20% by 2020

2008

Memorandum of Understanding signed between Central Government and Hong Kong Special Administrative Region (SAR). Government guarantees continued nuclear energy supply to Hong Kong.

Celebrating 15 years of successful operation, Daya Bay saves over 100 million tonnes of CO2 emissions in Hong Kong.

2009

The Hong Kong SAR Government approves extending the Daya Bay nuclear supply agreement for 20 years; and signing of the extension of Joint Venture and Supply contracts in the presence of the State leader Xi Jinping at The Great Hall of the People

Please visit www.hknuclear.com to learn more of Daya Bay Nuclear Power Station.

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