Priorities on Education and Public Communications

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HKU-Cambridge Symposium on Challenges & Priorities for Trust-Based Cross-border Nuclear Safety Emergency Governance
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Role of Nuclear Power in Hong Kong

- Accounts for about 25% of Hong Kong's electricity
- Has provided reliable base load power at competitive price since 1994
- Avoids 7.5 million tonnes of CO_2 emission a year
- As of 31 May 2014, the cumulative electricity sent out of Daya Nuclear Power Station has reached **282.4** billion kWh, **193.8 billion kWh** of which was transmitted to Hong Kong, contributing to the economic development in both Guangdong and Hong Kong
- Despite early concerns, Daya Bay has generated little interest in Hong Kong for many years

Guangdong Daya Bay Nuclear Power Station

GNIC 75%

GUANGDONG NUCLEAR INVESTMENT COMPANY, LIMITED - A SUBSIDIARY OF CGNPC

A Joint Venture of CGNPC & CLP

HKNIC 25%

HONG KONG NUCLEAR INVESTMENT COMPANY, LIMITED
- A SUBSIDIARY OF CLP
- SUPPLIES 70% ANNUAL OUTPUT TO HONG KONG

OPERATOR:
DAYA BAY NUCLEAR POWER OPERATIONS & MANAGEMENT COMPANY, LIMITED (DNMC)
- Manage and Operate Daya Bay

CGNPC (87.5% STAKE)

CLP (12.5% STAKE)
INVESTOR AND OFF-TAKER

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Severe Natural Disaster - Earthquake & Tsunami on 11 March 2011

Followed by Unprecedented Nuclear Accident…

Fukushima, Japan
March 2011

Public Sentiment after Fukushima

In 2014…

Need to enhance public engagement and communication

Anti-nuclear Social Movement in China

Thousands of Jiangmen residents protest at Gov't building

Nuclear Power Plant in Guangdong

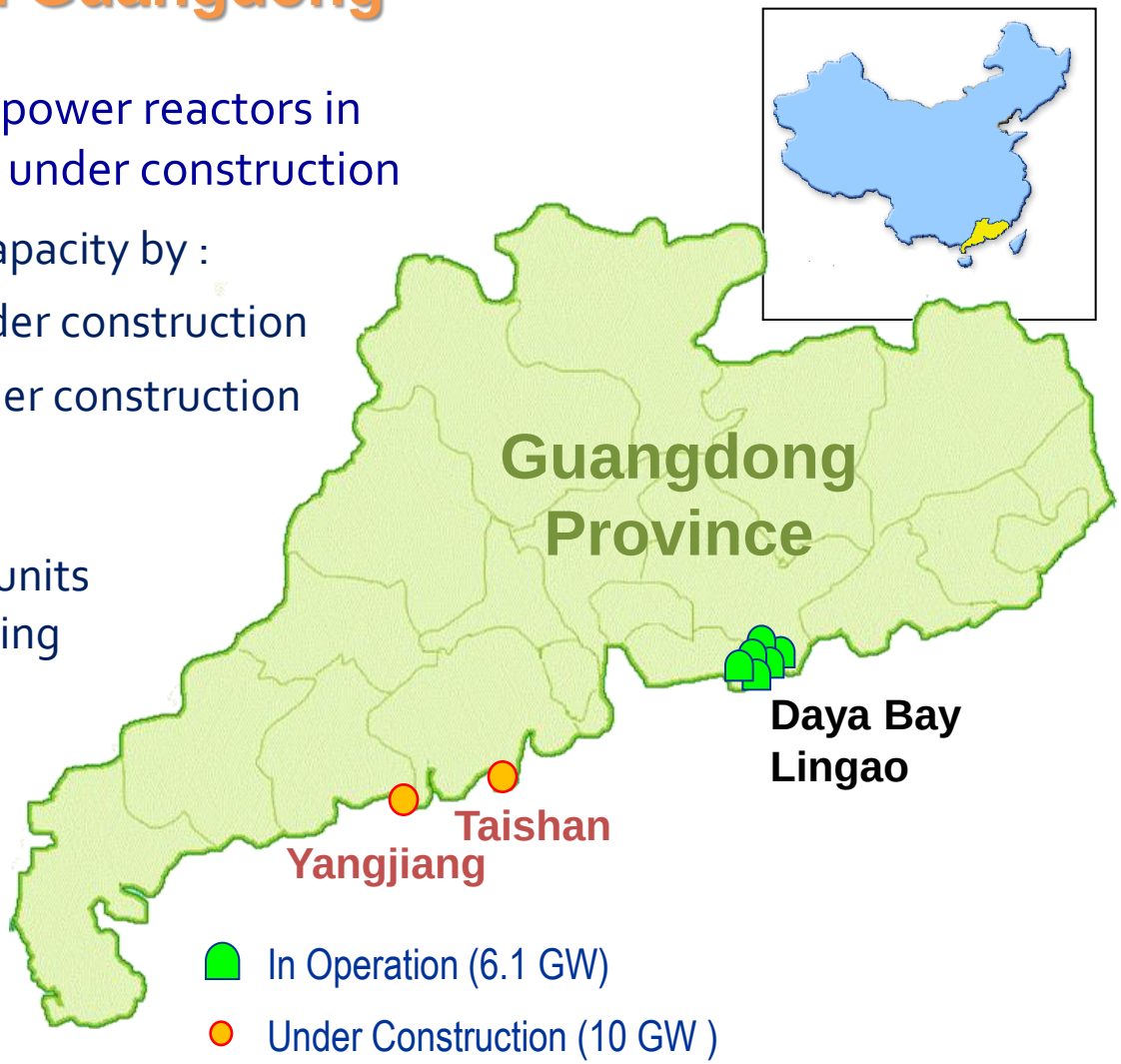
- In China, there are 17 nuclear power reactors in commercial operation and 31 under construction

  Target installed nuclear capacity by :

  2015: 40 GW , + 18 GW under construction

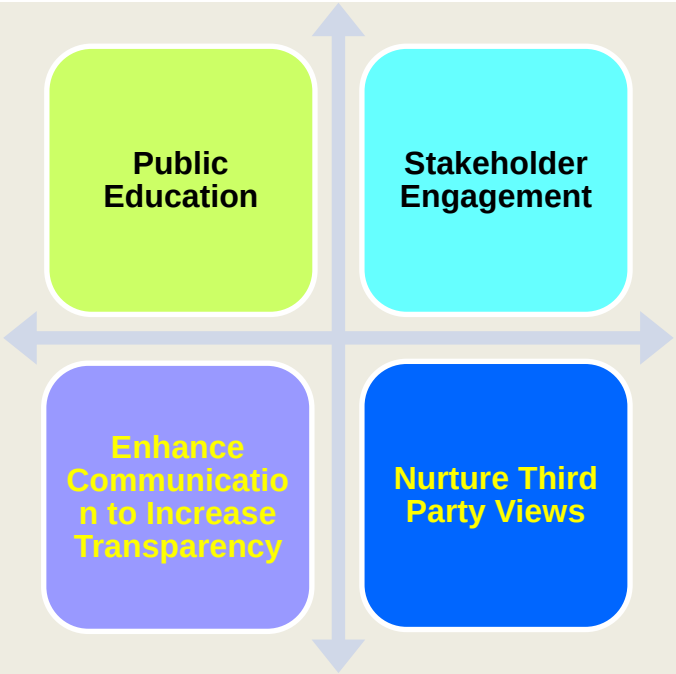
  2020: 58 GW, + 30 GW under construction

- In Guangdong,
  - 6 units in operation and 8 units under construction, including two EPR units at Taishan
  - Electricity generation from nuclear increase at 10% pa over the past 5 years



Objectives and Strategy

- Promote public literacy and rectify misperceptions
- Garner support from key stakeholders
- Instill confidence on the safety performance of Daya Bay
- Foster balanced and informed discussion on the future role of nuclear power



Public Education

NUCLEAR RESOURCES CENTRE
核 能 資 源 中 心

Nuclear Resources Centre

- A one-stop learning platform with balanced information on nuclear energy
- Divided into 7 thematic zones with interactive videos, games and displays
- Received over 11,000 visitors since opening in May 2012

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Public Education (cont.)

Energy Summer School

- 80 secondary students from 16 schools were taken on a four-day learning experience: visits to CLP facilities, talks by energy experts and personal coaching
- Students concluded their learning at a finale event
- All students were appointed as CLP's Energy Ambassadors

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Public Education (cont.)

Nuclear Energy Website

- Launched in March 2013 accumulating more than 28,507 visits so far

Liberal Studies Project

- Hong Kong's first e-learning liberal studies portal developed by CLP to provide students and teachers with comprehensive information on energy and the environment
- Regular school talks featuring energy experts

Media Publicity

- Media briefings and contributing articles

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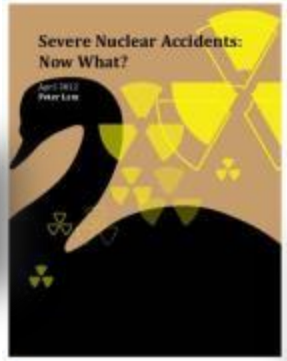
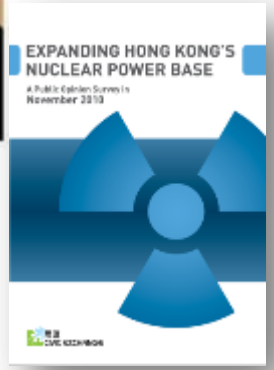
Stakeholder Engagement

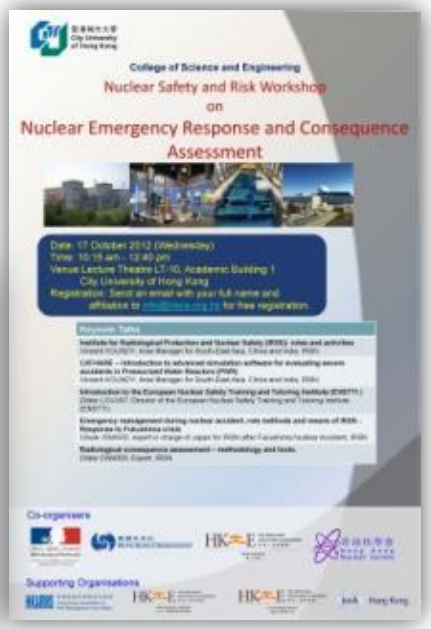
- Support think tanks and industry bodies to organize public forums / speaking opportunities
- Regular exchanges and meetings with important stakeholders e.g. Hong Kong and mainland authorities, legislators, academics, professional groups, business chambers, etc.

Nurture Third Party Views

- Encourage independent bodies, academics, think tanks and experts to engage in discussions on nuclear energy
- Support research projects to cultivate knowledge base on nuclear energy







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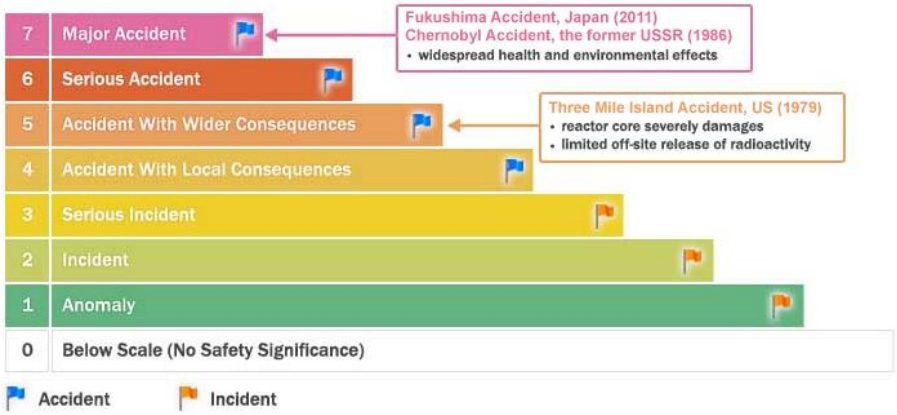
Enhance Communication to Increase Transparency

Non-emergency Licensing Operational Events (LOE) Notification Mechanism

- To address public concern on nuclear safety of Daya Bay, a new notification mechanism was set up in 2011 to enhance transparency



International Nuclear Event Scale (INES)

For **NON-EMERGENCY EVENTS** -

(INES Level 0, 1, and 2 of an non-emergency nature)

Disclose in **TWO working days** after identification through company's website

For **EMERGENCY EVENTS** -

"Nuclear Events Emergency Management Regulation" promulgated by the State Council requires timely communication with the public by a government agency authorised by the State Council

International Practice of Public Disclosure of Licensing Operational Events

Country / Region	Company	Public Disclosure Practice
Britain 	British Energy	• Quarterly disclosure by the regulator (ONR)
Canada 	Ontario Power Generation (OPG)	• OPG to disclose within one business day
France 	EDF	• Disclosure of events at Level 1 & above by the regulator (ASN) • Selective disclosure of events at Level 0 (e.g. events that may attract public interests) • No specific timing requirement for public disclosure (e.g. from a few days to 19 days)
Japan 	Tokyo Electric & Kansai Electric	• Monthly disclosure by the plant operator [pre-Fukushima Accident practice]
Hong Kong (Daya Bay) 	HKNIC	• Public disclosure via website within two working days after identifying a non-emergency LOE

Enhance Communication to Increase Transparency (cont.)

Nuclear Safety Consultative Committee (NSCC)

- Established in 1988
- Members include independent experts, professionals and academics
- To provide the Hong Kong public with regular update on the safety and operational performance of the nuclear power stations

Daya Bay Stakeholder Visits

- Around 1,000visitors visited Daya Bay in 2013 including university students, engineers, professional bodies, government officials, etc.

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Summary

- Nuclear has provided safe, reliable, clean and competitive energy meeting 25% of Hong Kong's needs since early 1990's
- Addressing safety concern through public education, communication and transparency is key to instill confidence
- Close collaboration among key stakeholders required for effective communication

THANK YOU