TQNPC THIRD QINSHAN NUCLEAR POWER CO.,LTD.
秦山第三核电有限公司

PROMOTING NUCLEAR POWER CONSTRUCTION IN CHINA

At FNCA Special Panel Session

Presented by: Gang CHEN

Third Qinshan Nuclear Power Co. Ltd.

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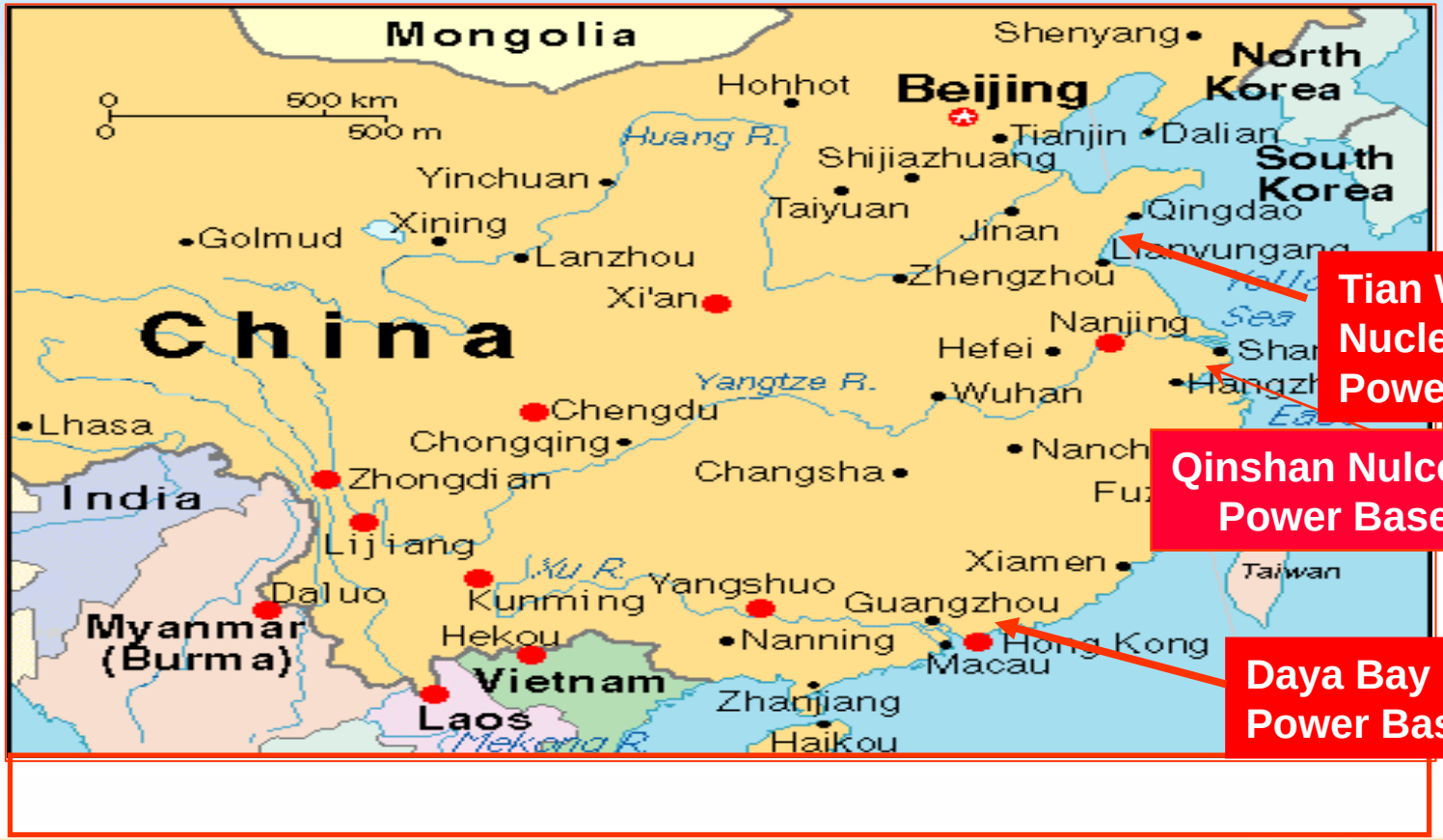
1. Status of Peaceful Use of Nuclear Energy in China

- Currently 9 nuclear reactor units in operation
- Two more reactor units are under construction
- total installed capacity of nuclear power：87000MW
- Nuclear power accounting for 2.3% of total power generation

Location of Three Nuclear Power Base in Mainland of China



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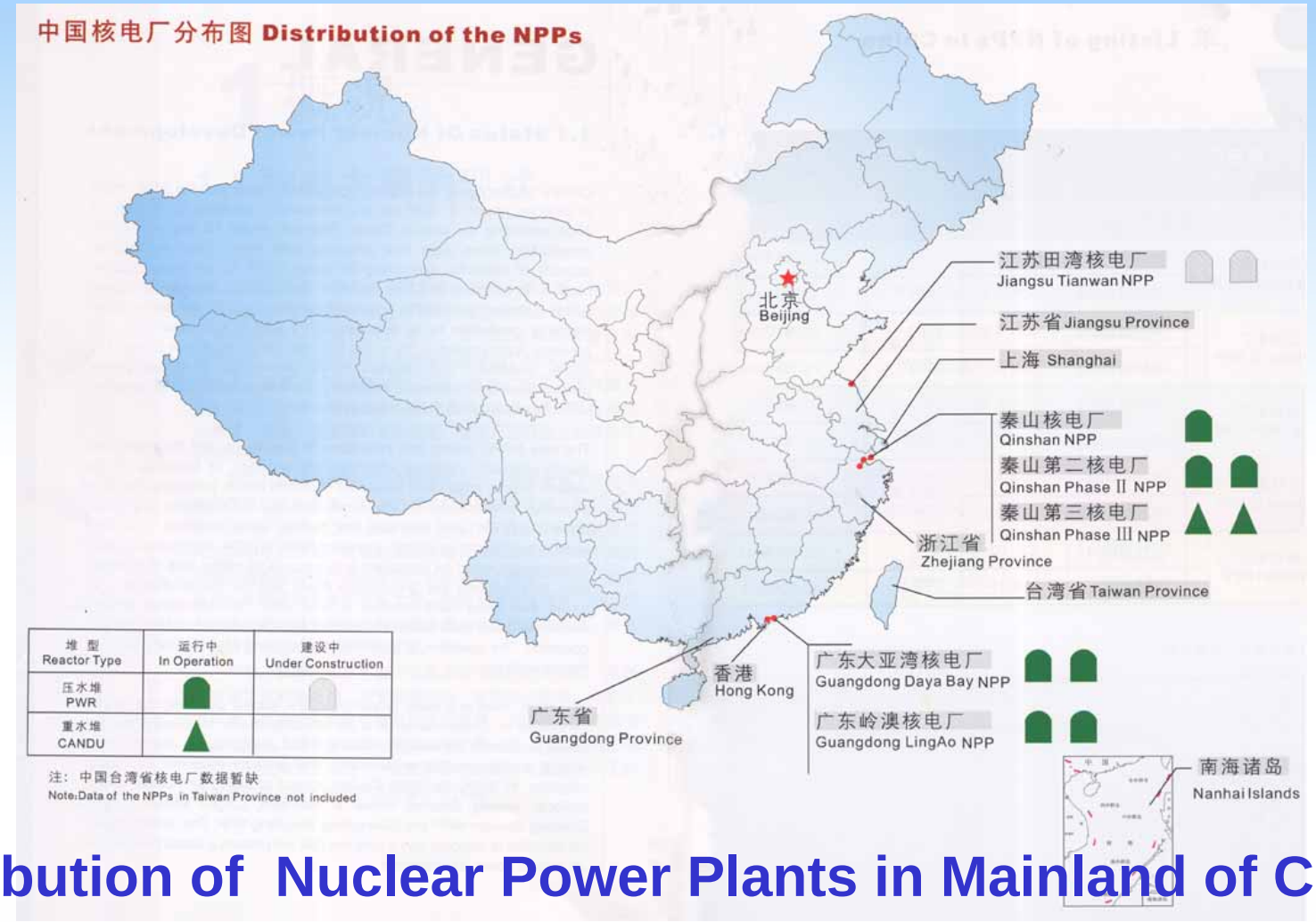
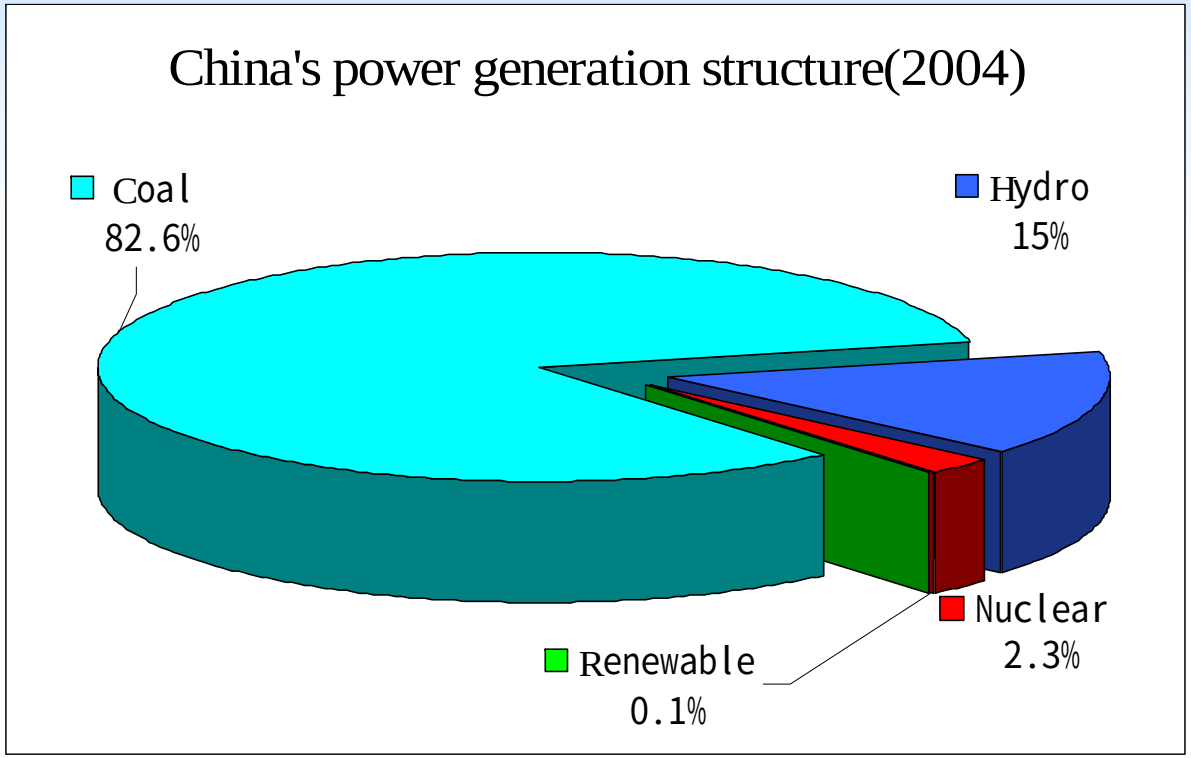
Bird Views of Three Nuclear Power Base in China



Distribution of Nuclear Power Plants in Mainland of China

China's power generation structure (Year 2004)



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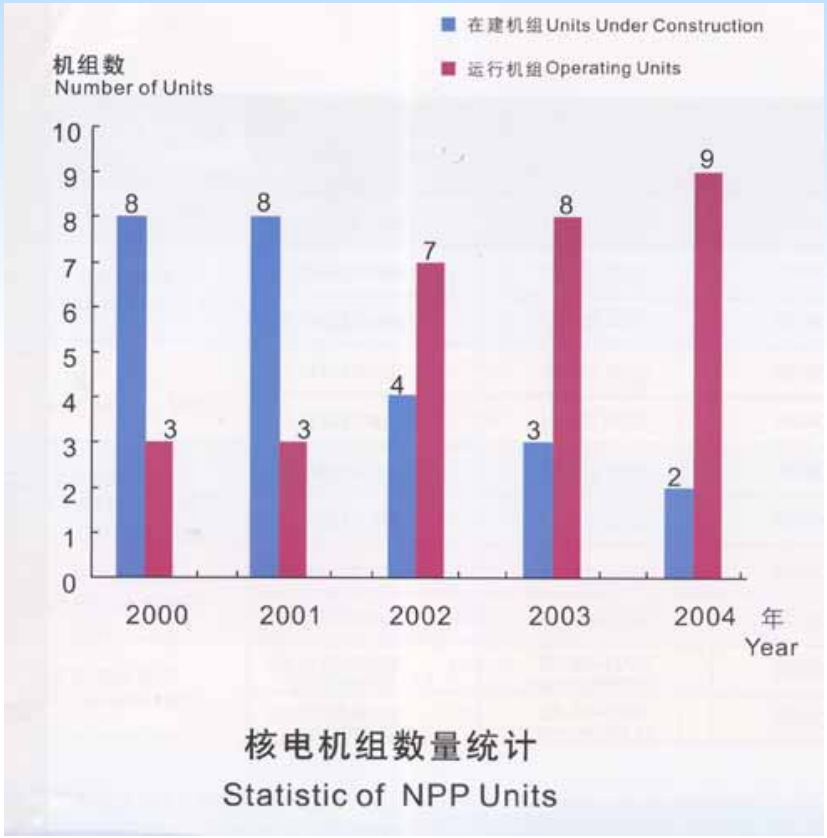
List of NPPs in China

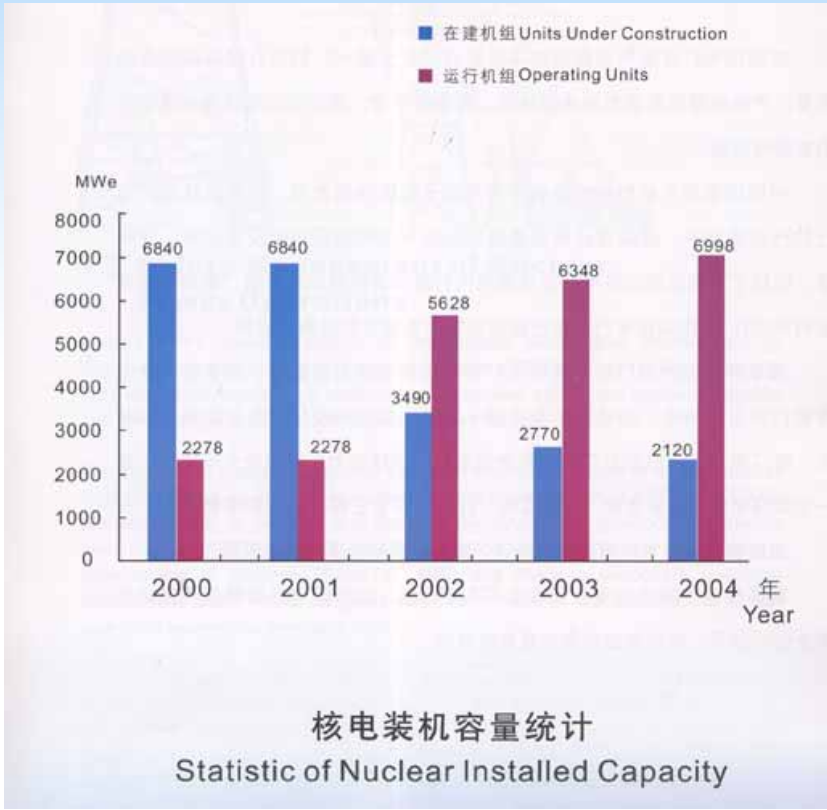
NPP Name		Unit No.	Reactor Type	Nominal Power(MWe)	Construction Start Date	Date of First Connection to the Grid	Date of Connection to the Grid
Qinshan NPP		CN-1	PWR	310	1985-03-21	1991-12-15	1994-04-01
Guangdong Daya Bay NPP	Unit 1	CN-2	PWR	984	1987-08-07	1993-08-31	1994-02-01
	Unit 2	CN-3		984	1988-04-07	1994-02-07	1994-05-06
Qinshan Phase Ⅱ NPP	Unit 1	CN-4	PWR	650	1996-06-02	2002-02-06	2002-04-15
	Unit 2	CN-5		650	1997-04-01	2004-03-11	2004-05-03
Guangdong LingAo NPP	Unit 1	CN-6	PWR	990	1997-05-15	2002-02-26	2002-05-28
	Unit 2	CN-7		990	1997-11-28	2002-09-14	2003-01-08
Qinshan Phase Ⅲ NPP	Unit 1	CN-8	CANDU	720	1998-06-08	2002-11-19	2002-12-31
	Unit 2	CN-9		720	1998-09-25	2003-06-12	2003-07-24
Jiangsu Tianwan NPP	Unit 1	CN-10	PWR	1060	1999-10-20	2004-06-12 (Planning)	2004-12 (Planning)
	Unit 2	CN-11		1060	2000-09-20	(Planning)	(planning)

Statistics of NPPs Units and Installed Capacity in China



核电机组数量统计

Statistic of NPP Units



核电装机容量统计

Statistic of Nuclear Installed Capacity

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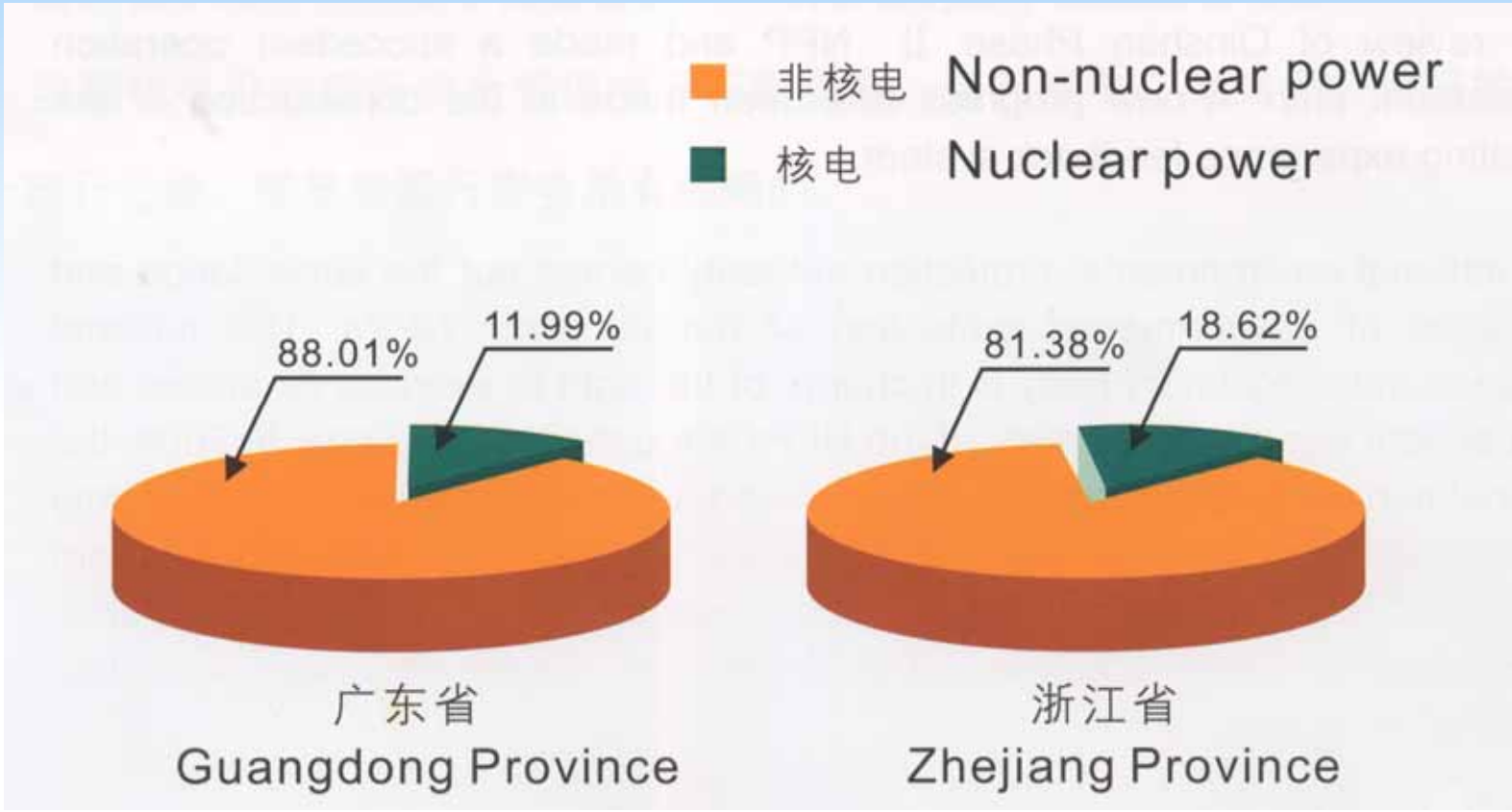
Unit Capability Factors and Unit Load Factors (From 2000 to 2004)

Item / NPP Name		Unit Capability Factor(%)					Unit Load Factor(%)				
		2000	2001	2002	2003	2004	2000	2001	2002	2003	2004
Qinshan NPP		76.8	92.60	68.37	89.15	99.81	77.20	94.05	66.92	88.74	99.78
Guangdong Daya Bay NPP	Unit1	86.07	88.02	89.74	90.13	87.77	85.18	84.92	89.55	89.57	87.27
	Unit2	88.00	90.89	82.02	84.79	73.91	84.91	89.11	81.55	84.48	73.57
Qinshan Phase II NPP	Unit 1	/	/	74.86	79.69	80.18	/	/	74.86	81.15	82.22
Guangdong LingAo NPP	Unit1	/	/	99.92	80.68	88.54	/	/	92.03	76.83	87.76
	Unit2	/	/	/	90.44	80.43	/	/	/	85.00	79.92
Qinshan Phase III NPP	Unit1	/	/	/	90.38	76.16	/	/	/	90.21	77.28
	Unit2	/	/	/	87.67	92.85	/	/	/	90.42	94.03

Good Social and Economic Effect Brought Nuclear Energy

- Actively improved and optimized the human living condition
- Effectively easing the Power Shortage in the Coastal Area
- The total electricity generation by nuclear energy in 2004, if converted to coal consumption, would be equivalent to 14.93 million tons of standard coal.
- Relevant industries promoted


非核电 Non-nuclear power
核电 Nuclear power
88.01%
11.99%
81.38%
18.62%
广东省
Guangdong Province
浙江省
Zhejiang Province

Benign Cycle (Nuclear Energy vs PI)

- Nuclear power development achievements provide persuasive facts and cases for PI activities.
- Good performance of nuclear power plants construction and operation enhances the public confidence on nuclear energy and hence promotes public acceptance.
- Good construction achievements and operation performance of nuclear power plants formed the basis for decision-making by the Government to speed up nuclear power development.

2. New Policy---To Accelerate Nuclear Power Development In China

- Nuclear power as an integral part of the state's energy strategy
- New Policy---"To speed up nuclear power construction"
- 27000 MW to be newly built by 2020 in the Mainland of China

✓ nearly 30 units of 1000MW to be built in the next 15 years

✓ In 2004, eight new units approved

Reasons for the New Policy

- To meet the requirements of economic development and growing demands on energy;
- To optimize energy mix;
- To alleviate environmental pollution;
- To boost the development of related industries;
- To safeguard the national economic and energy security;
- To realize harmonious development of the economy, society and ecological environment.

3. Strict Safety Management and Good Operation Record of Nuclear Power NPPs in China

- Principle: “quality and safety come first”
- Nuclear safety regulation system and supervision and management system
- Regulations on Safety Supervision and Management of Civil Nuclear Facilities and the Regulations on NPP Nuclear Accidents Emergency Management
- A series of rules, guidance, standards and technological documents in compliance with international practice
- Independent supervision on safety of civil nuclear facilities
- Safety licensing management throughout the whole process from siting, design, construction to operation of NPPs

4. FNCA PI project has enhanced promotion of public understanding of nuclear energy in Asia

- FNCA an important role in promoting peaceful uses of nuclear energy and the relevant international cooperation
- China appreciates the FNCA's efforts in recent years in strengthening international cooperation in various fields.
- Frequent PI related information exchange promoted the acceptance and recognition of the public.
- The web-site of FNCA is a platform to publicize PI information
- Cross-national Joint Survey on Understanding and Interest in Radiation Among High School Students was conducted in 2002 in FNCA countries

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Concluding Remark

May the cooperation under FNCA framework between Asian Nuclear Community Flourish like the Japanese national trees planted by Hitachi in Front of TQNPC Administration Building, symbolizing friendship and good cooperation.

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Thanks for Your Attention!