



# Nuclear Power Industry Cooperation

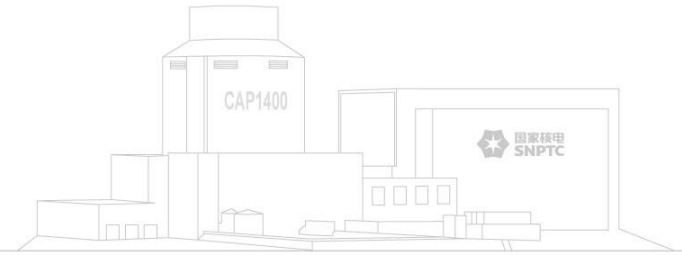
Jian Jingwen

2015.10.06



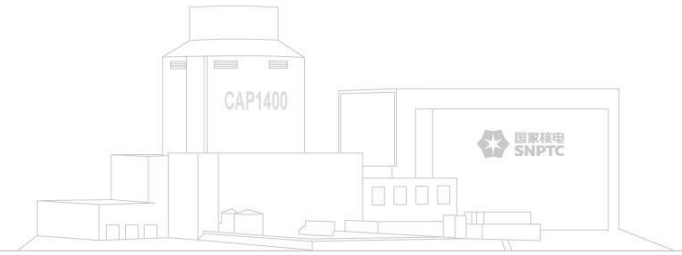
©SNPTC 2015. All rights reserved.

# Content



1. Brief Introduction of CNEIDA
2. Nuclear Power Industry In China
3. Nuclear Power Industry Cooperation

# Content



1. Brief Introduction of CNEIDA
2. Nuclear Power Industry In China
3. Nuclear Power Industry Cooperation

# 1. Brief Introduction of CNEIDA

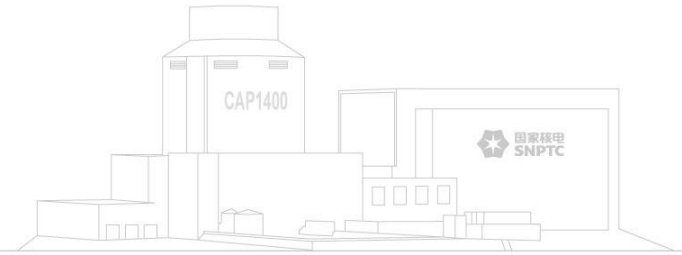
## CNEIDA— China Nuclear Energy International Development Alliance



➤ Established: January, 2014

➤ Members: 20

# Content



1. Brief Introduction of CNEIDA
2. Nuclear Power Industry In China
3. Nuclear Power Industry Cooperation

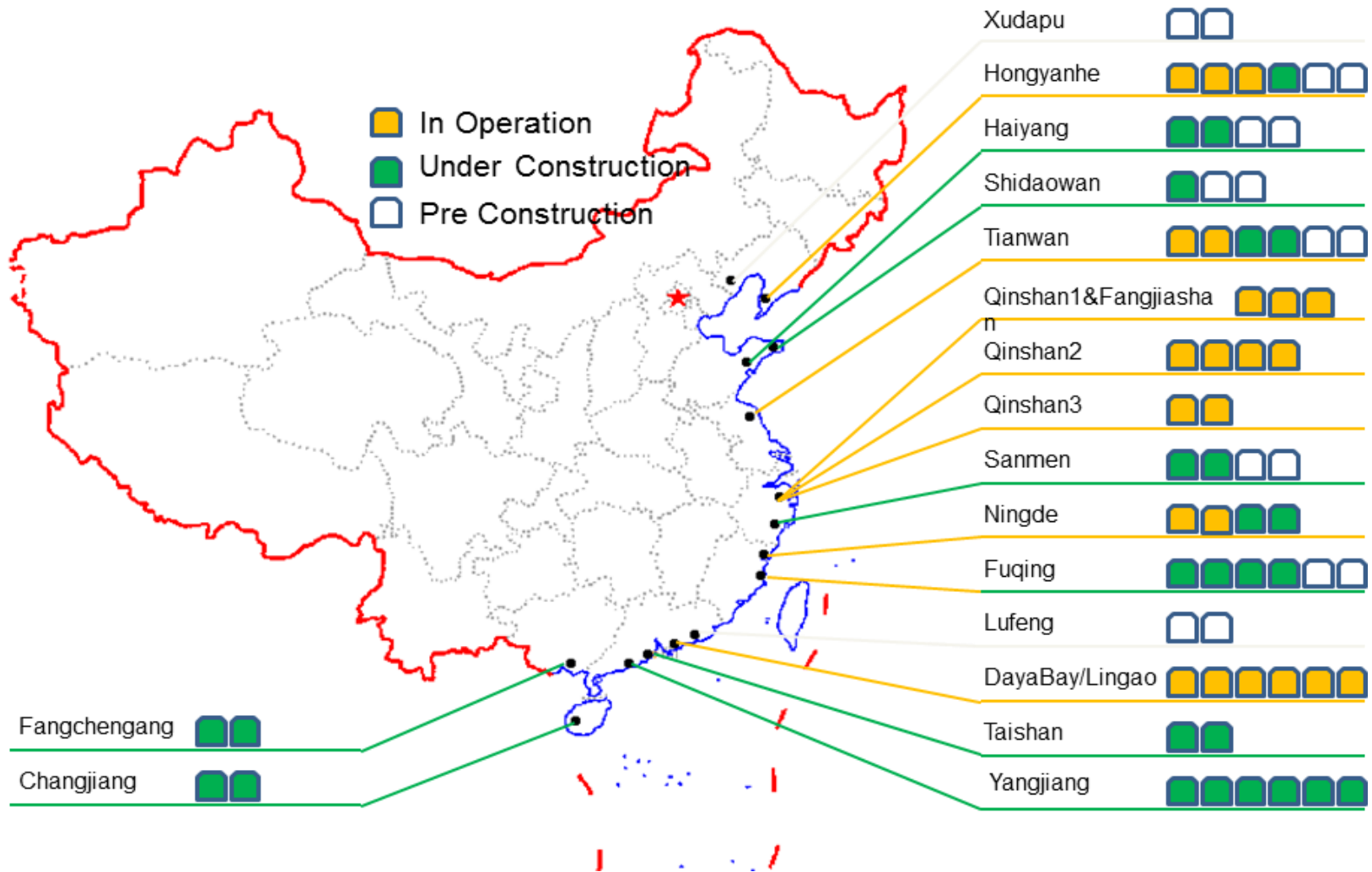
## 2. Nuclear Power Industry In China

China officially began its first nuclear power plant in 1970 when it made the decision to start the design of a 300 MWe nuclear power plant in Qinshan.

First concrete for Qinshan nuclear power plant was poured in March 1985 (FCD), and the plant was successfully connected to the grid in December 1991. This marked the beginning of China's history as a nuclear electric power generation nation.



## 2. Nuclear Power Industry In China



China have 22 nuclear power units under operation ( 20.3Gwe ) , 26 nuclear power units under construction ( 28Gwe ) and 16 in pre-construction now

## 2. Nuclear Power Industry In China

- ❑ Each Government wishes to promote capability of material & equipment supply, construction, project management, operation and maintenance
- ❑ China established high level and integrated Gen III NPP supply chain through 40 years of continuous NPP Construction, rich localization experience is accumulated





## 2. Nuclear Power Industry In China

The capabilities of the supply chain encompass overall design, manufacture, civil construction, installation, commissioning and startup, operation and maintenance.

The key categories of capabilities include:

- Integrated design and research and development system of nuclear island and civil island
- Top five heavy equipment manufacturing groups and a group of professional manufacturing companies shaping an integrated equipment manufacturing system
- Professional construction and project management organization
- Integrated NPP operation and servicing organization

## 2. Nuclear Power Industry In China

### R&D, Standardized Design



NI R&D/ Design



CI R&D/Design



CI R&D/Design

### Support Entities

HE  
哈电集团  
Harbin Power Plant Equipment Corporation

中国一重  
CFHI

上海电气  
SHANGHAI ELECTRIC

DEC  
东方电气

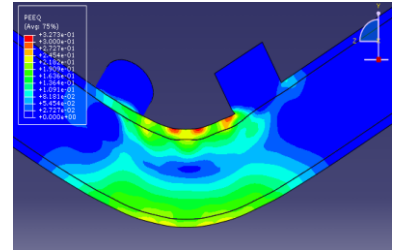
清华大学  
TSINGHUA UNIVERSITY  
-1911-

上海交通大学  
SHANGHAI JIAO TONG UNIVERSITY

## 2. Nuclear Power Industry In China

### Characteristics of Supply Chain in China

- Mature technology and process (over 30 years experience)
- World-Class hardware and facilities
- International QA system and standard (ASME/RCC/IEEE)
- Sufficient capability for 6-8 sets NPP with price advantage



## 2. Nuclear Power Industry In China

### Construction & Management

#### NPP Project Management



- ❑ High-caliber staff
- ❑ IMS platform

#### IMS System

- Carrier of project management experience
- Supporter of global collaboration in NP projects
- deliver digital plants to owner.



Physical



Deliver two plants to owner

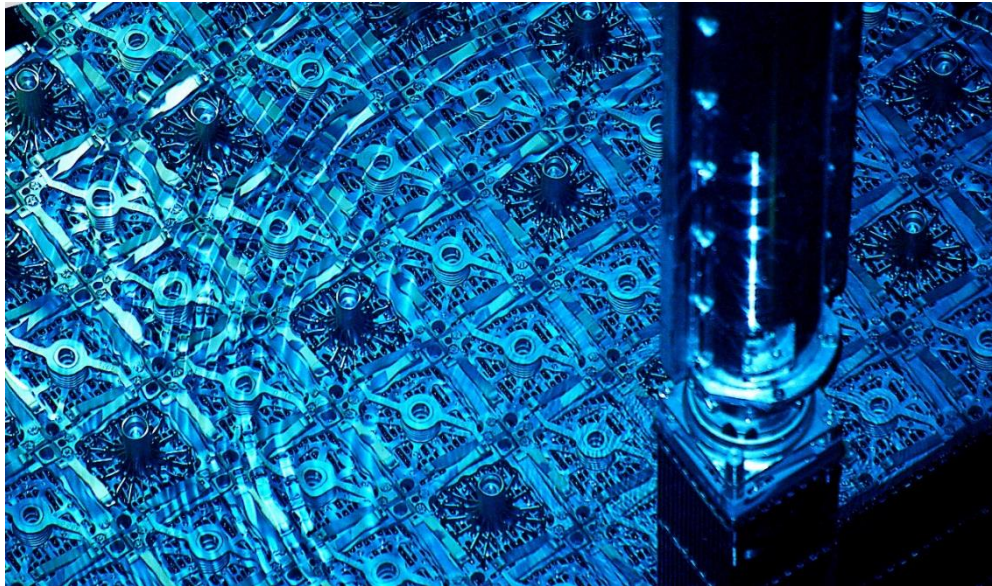
Digital



## 2. Nuclear Power Industry In China

### Fuel Supply

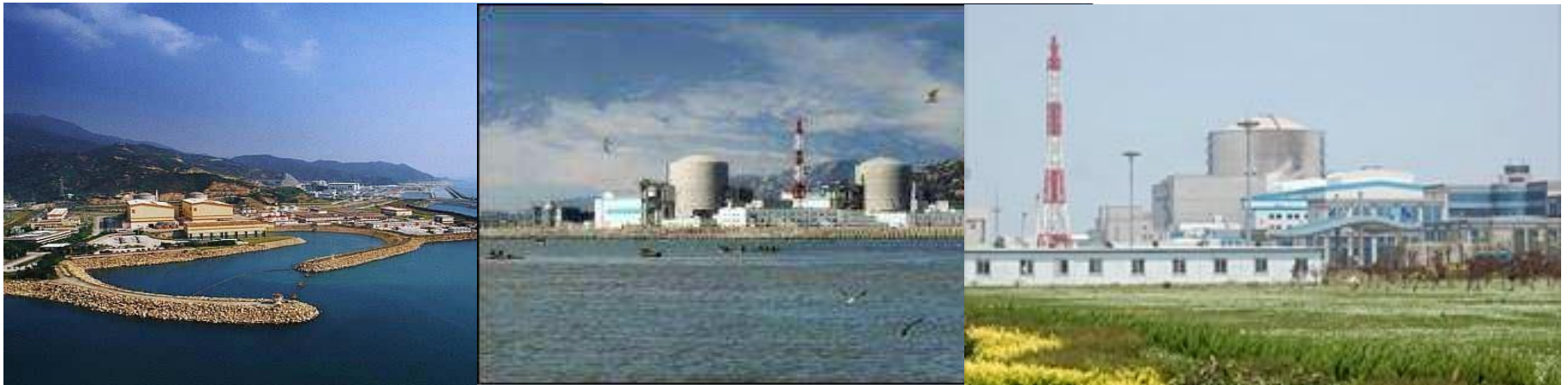
Strong capability on the research and development, construction and production of the whole nuclear fuel industrial chain.



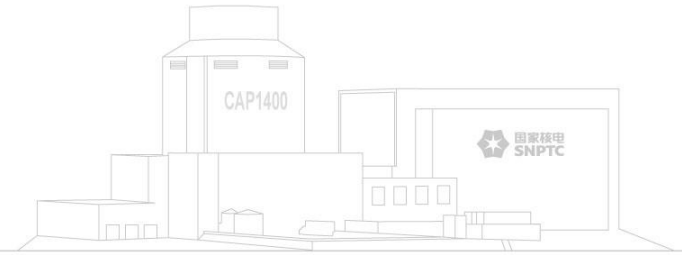
## 2. Nuclear Power Industry In China

### Strong financial support

- Chinese financial institutions highly valued the development of energy especially nuclear power industry, providing the loans to more than 80 percent of Chinese nuclear power assets.



# Content



1. Brief Introduction of CNEIDA
2. Nuclear Power Industry In China
3. Nuclear Power Industry Cooperation

### 3. Nuclear Power Industry Cooperation

□ China are willing to cooperate with Brazil on nuclear power industry.

□ Cooperation in all aspects

- ✓ Technology
- ✓ Management
- ✓ Equipment manufacture
- ✓ Fuel
- ✓ Financing

□ The cooperation between China and Brazil on the Nuclear Power Industry has Bright Future

**Cooperation**

**Benefits**

**Efforts**







国家核电  
SNPTC

更安全的核电  
更美好的生活