

Nuclear Power Plants: Yesterday, Today and Tomorrow
June 26-27, 2014
Obninsk

NUCLEAR POWER PROGRAMME IN VIETNAM AND ROLE OF MOST

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OUTLINE

1. Nuclear Power Programme

2. Role of MOST in the development of Nuclear Power Infrastructure

3. Conclusion

1. Nuclear Power Programme

- Resolution by the National Assembly on the Investment in Ninh Thuan Nuclear Power Project (25 November 2009): Decided to invest in Ninh Thuan Nuclear Power Project with 2 plants (2 units per plant) to generate electricity for socio-economic development in Vietnam in general and in Ninh Thuan province
- Planning for National Electricity Development for the Period of 2011-2020 with Consideration up to 2030 (approved by Prime Minister in 2011): upto 2030: Nuclear power ~ 10% generation share

1. Nuclear Power Programme

- Up to 2030: 14 Units ~ 15000 MW (8 sites)
- Ninh Thuan Nuclear Power Project:
 - Ninh Thuan 1:
Vendor: Russia
Capacity: 2 units x 1,000 MWe
 - Ninh Thuan 2:
Vendor: Japan
Capacity: 2 units x 1,000 MWe



DEVELOPMENT PLANNING ORIENTATION FOR
NUCLEAR POWER IN VIETNAM UP TO 2030
(APPROVED BY PRIME MINISTER IN 2010)

1. Nuclear Power Programme

COMPONENT PROJECTS

Ninh Thuan NPP Project

Construction of Ninh Thuan 1 NPP (EVN)

Construction of Ninh Thuan 2 NPP (EVN)

PR Centre on site (EVN)

Basic infrastructure for the Project (EVN)

Workforce Preparation for the Project (EVN)

Site clearance & resettlement (local authorities)

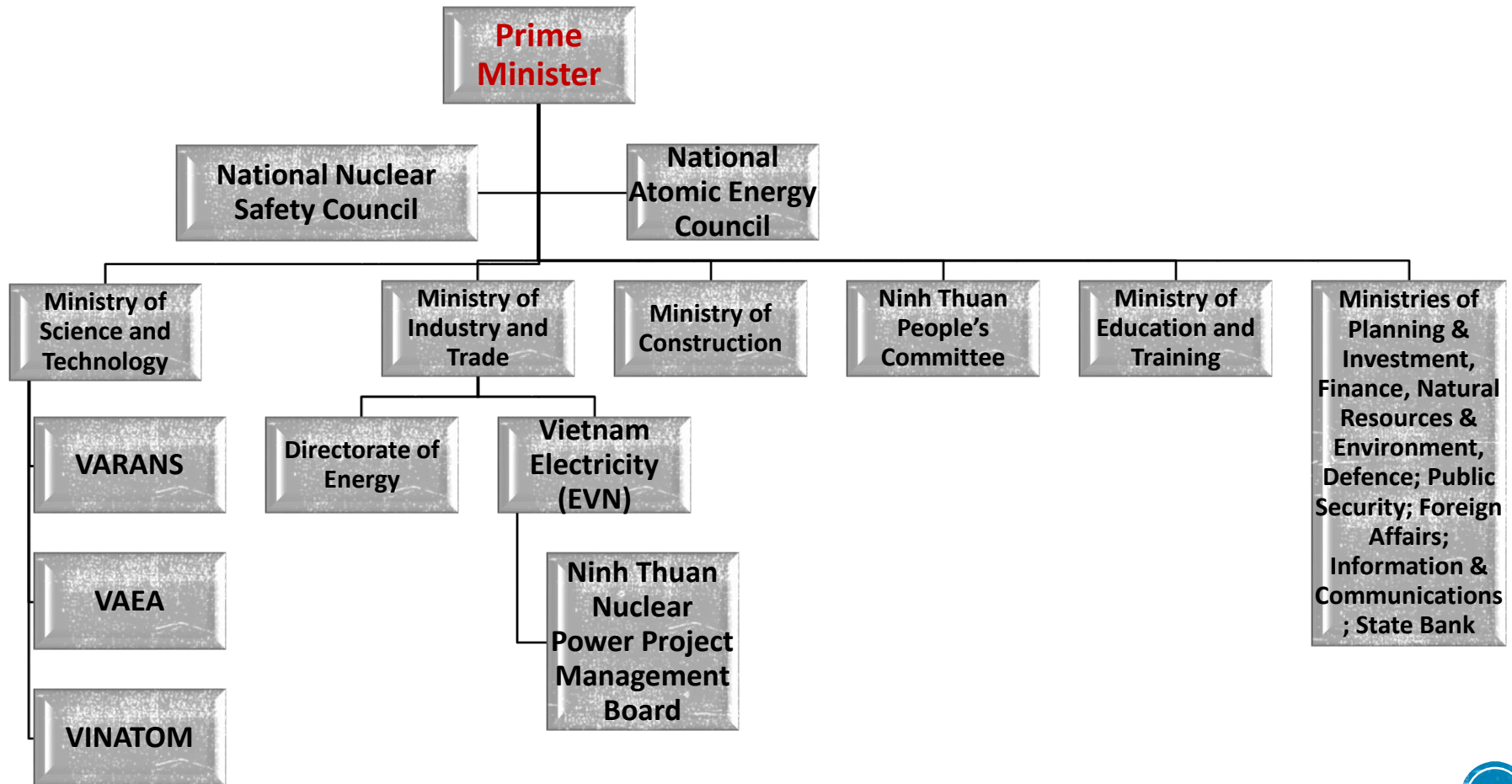
Nuclear Science & Technology Centre (MOST)

Project for development of nuclear power supporting Industry (MOIT)

Public Information & Communication (MOST)

2. Role of MOST in the development of Nuclear Power Infrastructure

GOVERNMENTAL MANAGEMENT SYSTEM



2. Role of MOST in the development of Nuclear Power Infrastructure

STATE STEERING COMMITTEE OF THE NINH THUAN NUCLEAR POWER PROJECT
(ESTABLISHED IN 5/2010)

Chairman

**Mr. Hoang Trung Hai,
Deputy Prime Minister**

**Standing Deputy Chairman
Minister of Industry & Trade**

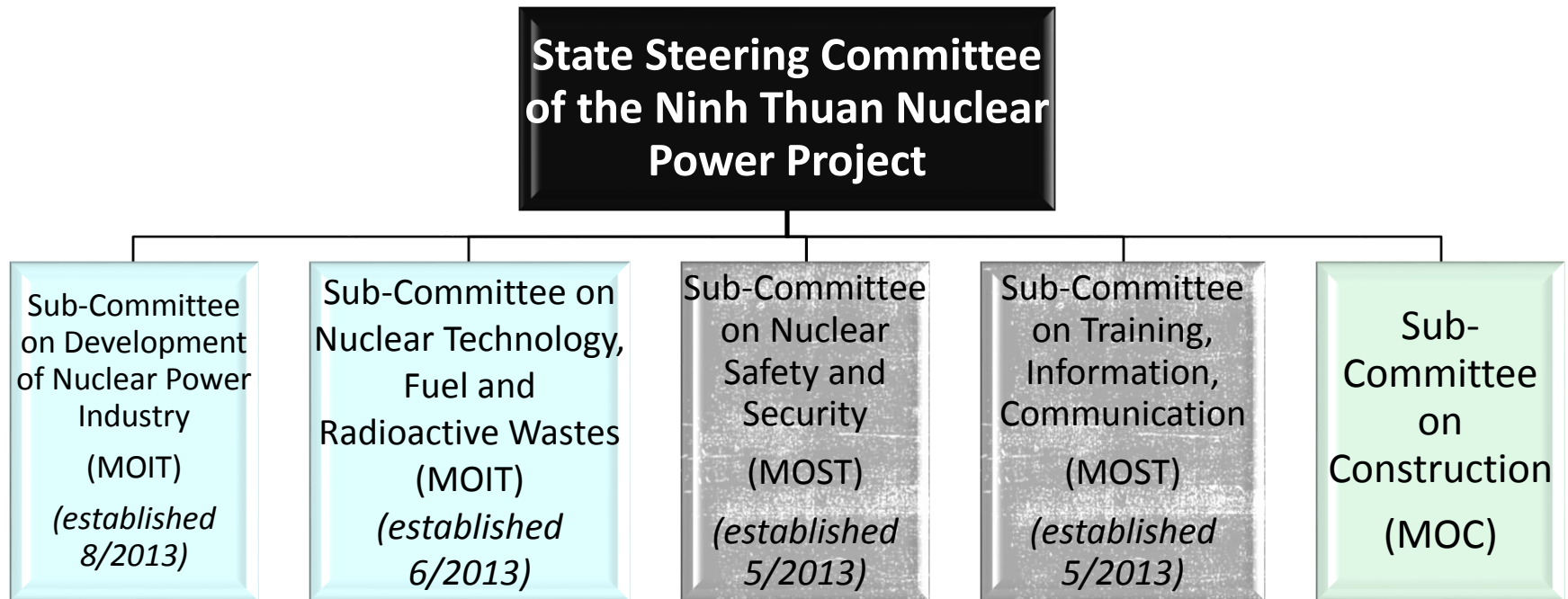
Deputy Chairmen

**Minister of Science & Technology, Minister of
Construction, Chairman of the People's
Committee of Ninh Thuan Province**

Members

- Deputy Ministers of Industry & Trade; Science & Technology; Construction; Planning & Investment; Finance; Natural Resources & Environment; Defence; Public Security; Foreign Affairs; Education & Training; Labour, Invalids & Social Affairs; Information & Communication; Office of Government
- Deputy Governor of State Bank
- Deputy Chairman of the People's Committee of Ninh Thuan Province
- President of Vietnam Electricity
- Deputy Chairman of Committee on Science, Technology & Environment, National Assembly

2. Role of MOST in the development of Nuclear Power Infrastructure



Roles and responsibilities of Members of the State Steering Committee are defined in the *Regulation of Operation of the National Steering Committee of the Ninh Thuan NPP Project* (Decision No. 93/QĐ-TTg dated 17/01/2011) and the *Decision Amending and Supplementing Some Articles of the Regulation of Operation of the National Steering Committee of the Ninh Thuan NPP Project Promulgated along with the Decision No. 93/QĐ-TTg dated 17 January 2011 by the Prime Minister* (Decision No. 717/QĐ-TTg dated 14/06/2012)

2. Role of MOST in the development of Nuclear Power Infrastructure

- **Ministry of Science and Technology**

(state management on atomic energy)

- Vietnam Atomic Energy Agency (VAEA): Policy, promotion of development, utilization and R&D of atomic energy;
- Vietnam Agency for Radiation and Nuclear Safety (VARANS): Safety, safeguards and security regulation;
- Vietnam Atomic Energy Institute (VINATOM): R&D organization

- **Ministry of Industry and Trade**

- General Directorate of Energy: state management of energy
- Vietnam Electricity *(state-owned enterprise)*: investment owner of Ninh Thuan Nuclear Power Projects
- Other ministries involving in the nuclear power programme: MONRE, MOC, MOET, etc.

2. Role of MOST in the development of Nuclear Power Infrastructure

- Roles of MOST in regulatory field, nuclear safety and public information and communication:
 - + To appraise the safety during different phases of the nuclear power plant;
 - + To grant the construction license;
 - + To guide the content of Safety Analysis Report;
 - + To issue the requirements and guide the content of nuclear safety assessment on siting, design, construction, operation and dismantling the nuclear power plant;

2. Role of MOST in the development of Nuclear Power Infrastructure

- Roles of MOST in regulatory field, nuclear safety and public information and communication:
 - + To guide the content of the plan on dismantling of the nuclear power plant;
 - + To guide the content of the environmental radiation monitoring plan;
 - + To define the standard for radioactive discharge, duration of radioactive waste and spent nuclear fuel storage in the nuclear power plant;
 - + To conduct domestic and oversea training for staff of relevant state management agencies, regulator, TSO
 - + To implement activities concerning public information, communication for the nuclear power development in Vietnam.

2. Role of MOST in the development of Nuclear Power Infrastructure

MOST chairs:

- The National Nuclear Safety Council (established in 4/2010)
- The National Atomic Energy Council (established in 5/2013);
- The Subcommittee on Nuclear Safety and Security (established in 5/2013);
- The Subcommittee on Training and Public Information, Communication (established in 5/2013);

2. Role of MOST in the development of Nuclear Power Infrastructure

Role of MOST in Nuclear Power Infrastructure Review

- 1st INIR Mission in 2009
- 2nd INIR Mission in 2012

2. Role of MOST in the development of Nuclear Power Infrastructure

International Cooperation activities:

- Legislative and regulatory framework: Amending the Atomic Energy Law and developing the regulation guidelines/standards
- Cooperation with IAEA in nuclear infrastructure development:
 - 2009-2011: 3 TC Projects related to the development of nuclear power infrastructure
 - 2011: Establishment of the Integrated Work Plan for the development of nuclear power infrastructure
 - 2012-2013: 5 TC Projects related to the development of nuclear power infrastructure
- Cooperation with USA, Russia and IAEA in completing the conversion of the nuclear research reactor in Dalat from using highly enriched uranium to low-enriched uranium fuel.
- Project on Nuclear Science and Technology Center
- Training specialist for nuclear governmental agencies (in Russia, Japan, EU, etc)

3. Conclusion

1. Strong commitment to peaceful use of atomic energy. Nuclear power development in Vietnam must ensure the safety, security, effectiveness, and quality and safety is considered the highest priority

2. Vietnam is in phase 2 of developing the national nuclear infrastructure and has been proactively preparing the necessary infrastructure for the introduction of nuclear power.

4. International cooperation plays an important role in nuclear power development in Vietnam, especially cooperation with vendors, the IAEA and experienced countries in nuclear industry.

**THANK YOU FOR YOUR
ATTENTION!**

