



Nuclear Energy Regulatory Agency
(BAPETEN)

Establishment of TSO and Its Possible Contribution to Public Outreach in Indonesia

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Introduction (1/2)

NPP Programme

- Indonesia has planned to establish NPPs since several decades ago, but it has not been successful yet in reaching the final decision to go.
- In preparing the NPP plan, several milestones have been reached, such as:
 - Construction of three research reactors for conducting research and preparing experienced human resources;
 - Establishment of new law on nuclear energy in 1997 (act no 10/1997);
 - Establishment of new regulatory body which is independent of executing/promoting body;
 - Development of several safety regulations relating to nuclear installations and nuclear materials;

Introduction (2/2)

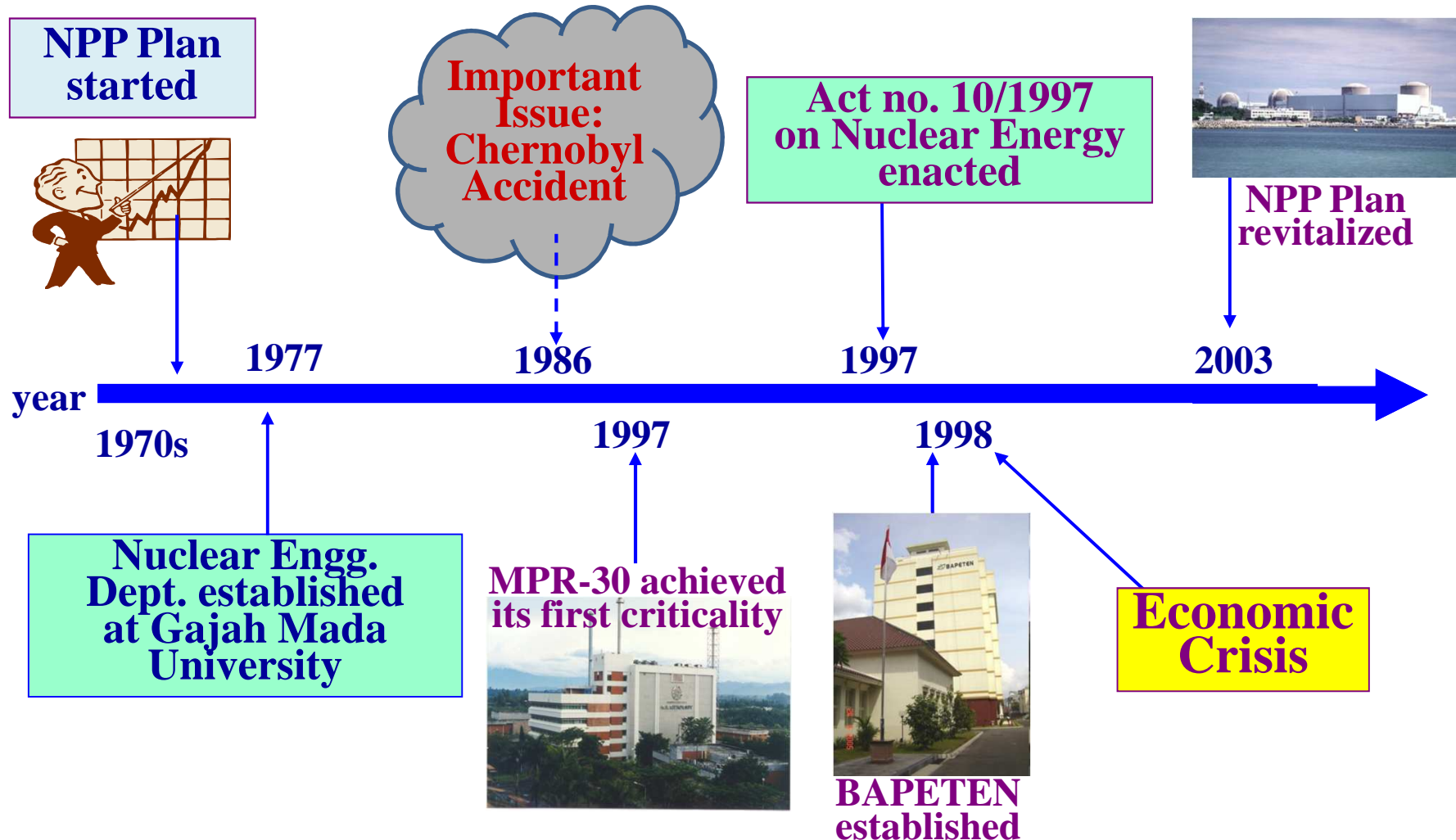
NPP Programme --- (cont'd)

- Public information and information dissemination regarding the NPP programme is being continuously carried out.

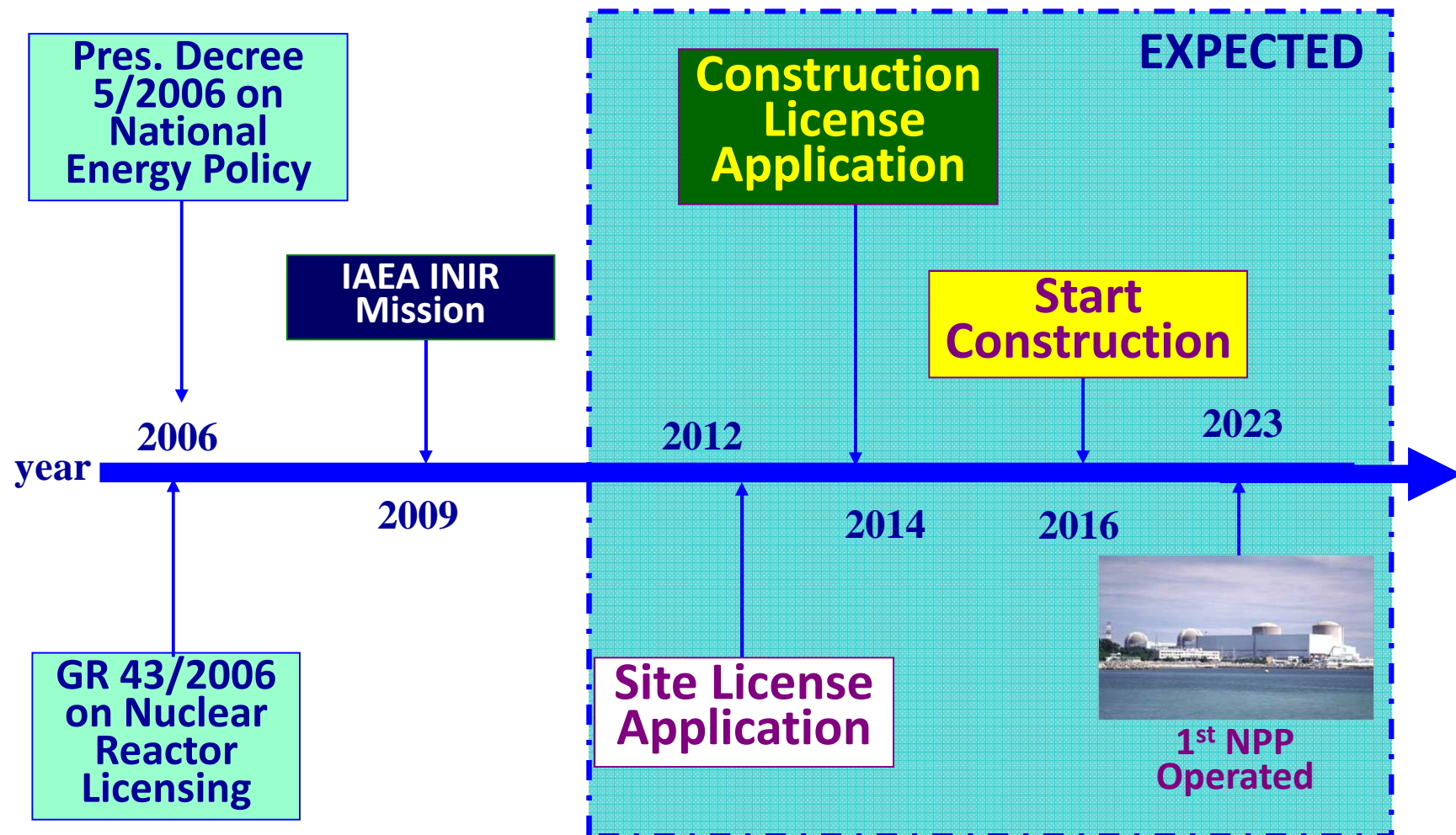
TSO establishment

- In the frame of strengthening safety infrastructure, technical and scientific support organization (TSO) is important to be established to provide scientific and technical recommendations, especially to the Regulatory Body.
- TSO is expected to be able to take a role in public outreach in the frame of achieving the public confidence, which is one of vital importances in the NPP programme.

Milestones of the NPP Programme (1)



Milestones of the NPP Programme (2)



Key Issues on the NPP Programme (1/2)

Establishment of a strong and effective regulatory infrastructure:

- To establish **an independent regulatory body**
- To develop strong and harmonized nuclear safety regulations and standards
- To establish **independent TSO** to provide technical and scientific support to the regulatory body
- To develop nuclear safety network among regulatory bodies, as well as among TSOs
- To develop nuclear knowledge network among regulatory bodies and among operating organizations.

Key issues on the NPP Programme (2/2)

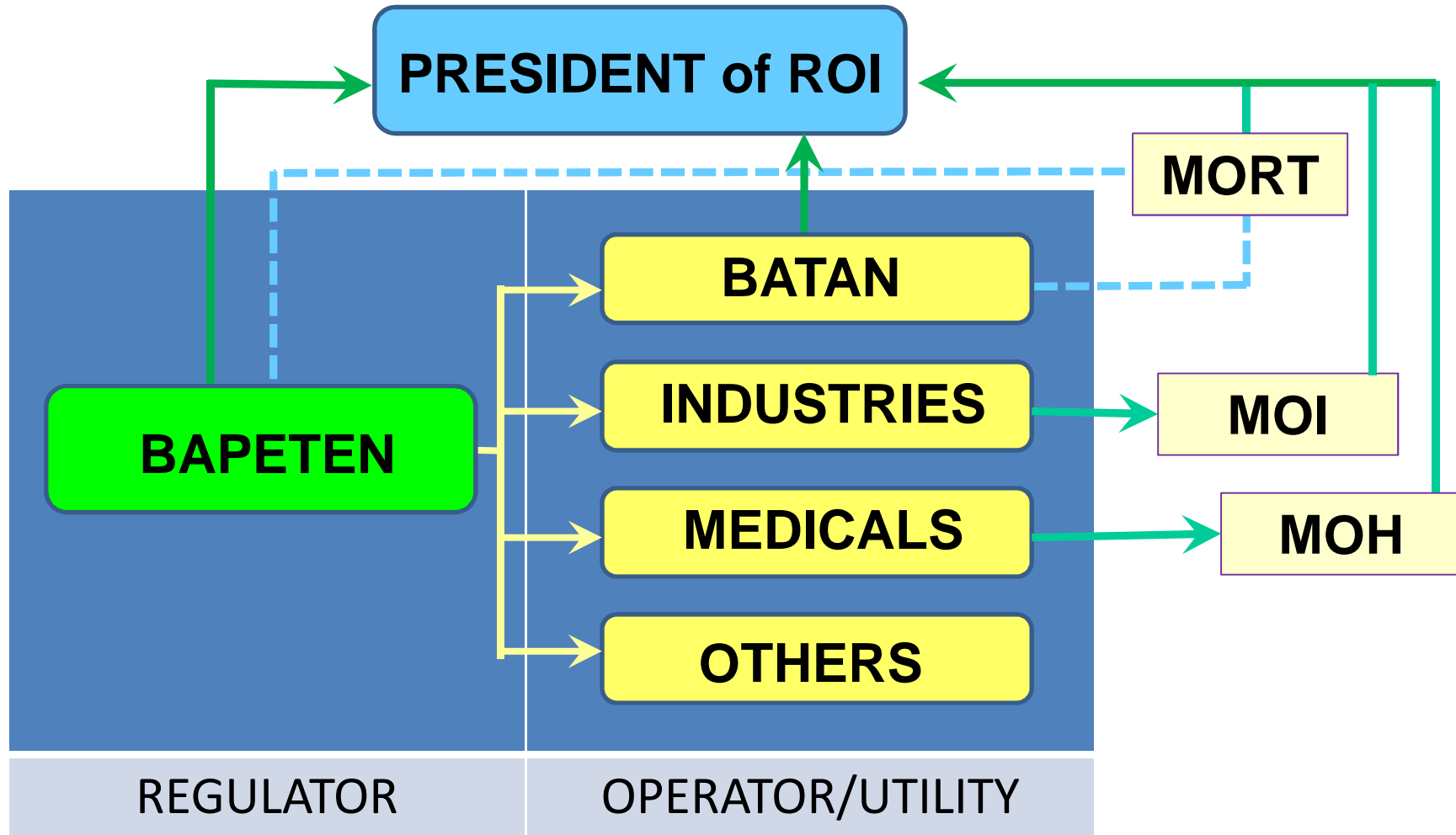
Achievement of public confidence:

- To develop an effective strategy and approach to conduct a public information and public education
- To extend the role of TSOs to taking a part in performing the public information and public education

Enhancing the quality of human resources which are involved in nuclear business:

- Increasing the role of education and training centres in national capacity building
- Improving the quality of nuclear knowledge networks, and consistently utilizing the networks in nuclear capacity building.

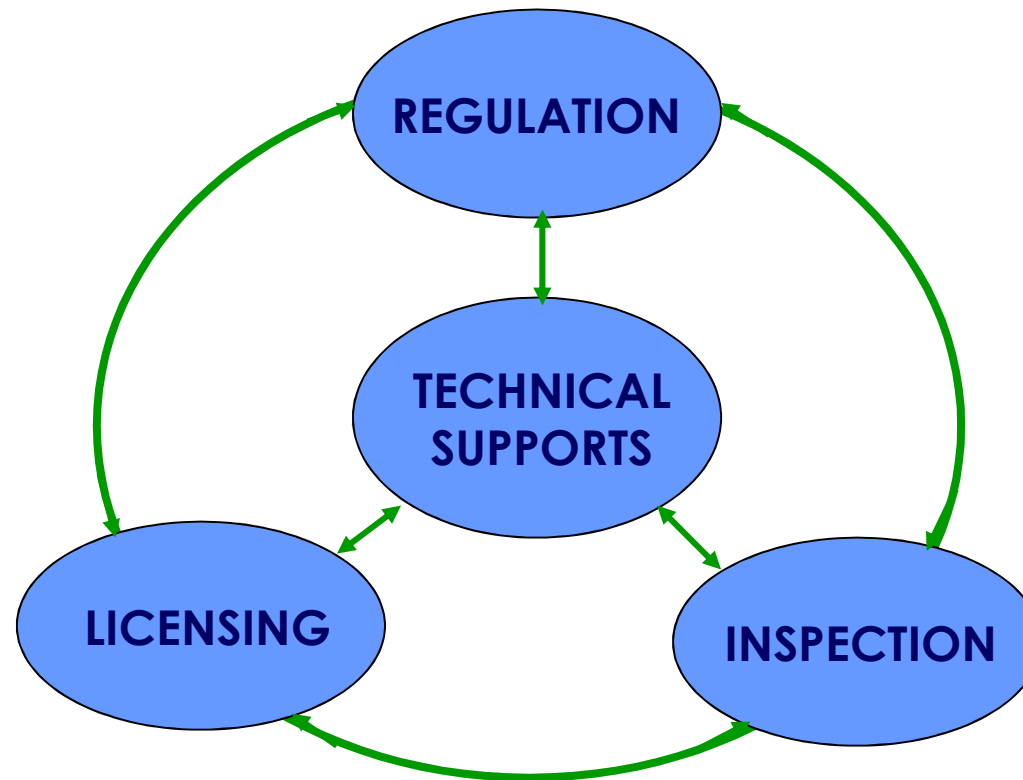
REGULATORY INFRASTRUCTURE (1)



Based on the nuclear law, act no 10/1997

REGULATORY INFRASTRUCTURE (2)

- The regulatory control is performed through 3 main regulatory functions: **regulation, Licensing, and Inspection.**
- **Technical Supports** is provided to enhance the regulatory functions.



Safety Issues and Public Acceptance

- ❑ The main issue relating to the public acceptance is safety.
- ❑ However, to be successful in conducting the public information, information of many other relevant aspects should also be provided to the public via the most effective media.
- ❑ The important aspects that should be informed are, inter alia:
 - safety
 - technology
 - potential risk
 - economical benefits
 - Environmental aspect, etc.

Which organization should perform public outreach?

- ❖ **Government:**
 - Executing body
- ❖ **Knowledge Centre:**
 - Universities
 - Training Centres
 - Research Centres
- ❖ **Independent organization:**
 - NGOs and
 - Other Civil Organization
- ❖ **Semi-Government:**
 - TSO

Establishment of TSO

Depending on national needs and its infrastructure, TSO can be established in the following options:

Government Org.



Funded with the national budget, and should be independent of those of Reg Body and Optg. Org.

Semi-Gov't. Org.



Funded partly with national budget, and partly from the services' fees (from customers).

Private Organiz.



Fully financed from the services' fees (customers: RB, Optg. Org., private sectors)

Expected Roles of TSO

Depending on its type of organization, TSO can play different roles (single or multi-tasks):

Single Function



provide technical and scientific supports to the **Regulatory Body** to enhance effectiveness of regulatory process .

Hybrid Organ.



- provide technical and scientific supports both to the **Regulatory Body** and to the **Operating Organization** ; and
- assist in conducting public education and information on NPP programme (additional)

Public Acceptance by TSO

- ❑ **Public acceptance is one of important roles that can be played by the TSO.**
- ❑ **Following aspects are important relevant to the public acceptance:**
 - **providing on-line, transparent and continuous information;**
 - **to enrich national education curricula with the nuclear contents;**
 - **to perform systematically and periodically education and training for the youth, who are expected in the future to become the public agents;**
 - **to develop networking among TSOs, and maximize utilization of available networks, such as ANSN.**

THANK YOU FOR YOUR KIND
ATTENTION

