

# Current Status of Japan's Nuclear Energy Policy

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1. Japan's overall Nuclear Energy Policy
2. International Cooperation on Nuclear Energy
3. The Establishment of the Independent Regulatory Body

# Nuclear Energy Policy of New Administration 1

## 1. Direction of Nuclear Energy Policy

- Prime Minister's instruction to the Minister of Economy, Trade and Industry (January 25, 2013)

To review from scratch “Innovative Strategy for Energy and the Environment” decided by the former administration and to establish a robust and responsible energy policy from various perspectives, including stable supply of energy, reduction of energy cost.

### <cf. Former Administration's Policy on Energy and the Environment>

- Three Pillars of the Strategy
  - ✓ Realization of a Society not Dependent on Nuclear Power
  - ✓ Realization of a Green Energy Revolution
  - ✓ Stable Supply of Energy
- The Government of Japan will mobilize all possible policy resources to such a level as to even enable zero operation of nuclear power plants in the 2030's.

# Nuclear Energy Policy of New Administration 2

## 2. Restart of Nuclear Power Plants

- Statement by Prime Minister Abe (Plenary Session of the House of Councilors on March 6, 2013)

Regarding the safety of nuclear power plants (NPPs), the administration will defer to the professional judgment of the Nuclear Regulatory Authority (NRA), so no NPP will be restarted unless the NRA assures its safety. On the other hand, once the safety of NPPs is assured by the NRA, the administration will respect its judgment and the NPPs will be restarted, from viewpoint of establishing a robust and responsible energy policy from various perspectives, including stable supply of energy, reduction of energy cost.

- Statement by Minister Motegi (Meeting on Industrial Competitiveness Council on February 28, 2013)

In parallel with the maximum introduction of renewable energy, we would like to utilize nuclear energy whose safety is assured. Regarding the safety of nuclear power plants (NPPs), we will defer to the professional judgment of the Nuclear Regulatory Authority (NRA) and once the safety of NPPs is assured by the NRA, we will respect its judgment and the NPPs will be restarted. In such case, we, exerting all government's effort, will take such all measures for restart of NPPs as the maximum effort to obtain the understanding and cooperation of local governments.

# Nuclear Energy Policy of New Administration 3

## 3. New and Additional Construction of Nuclear Power Plants

- Statement by Prime Minister Abe (Plenary Session of the House of Councilors on February 1, 2013)

Regarding the restart of NPPs, it will be judged in accordance with scientific safety standards. In respect of new and additional construction of NPPs, the administration is going to prudently examine in a certain term based on various aspects including the future environment of energy in Japan.

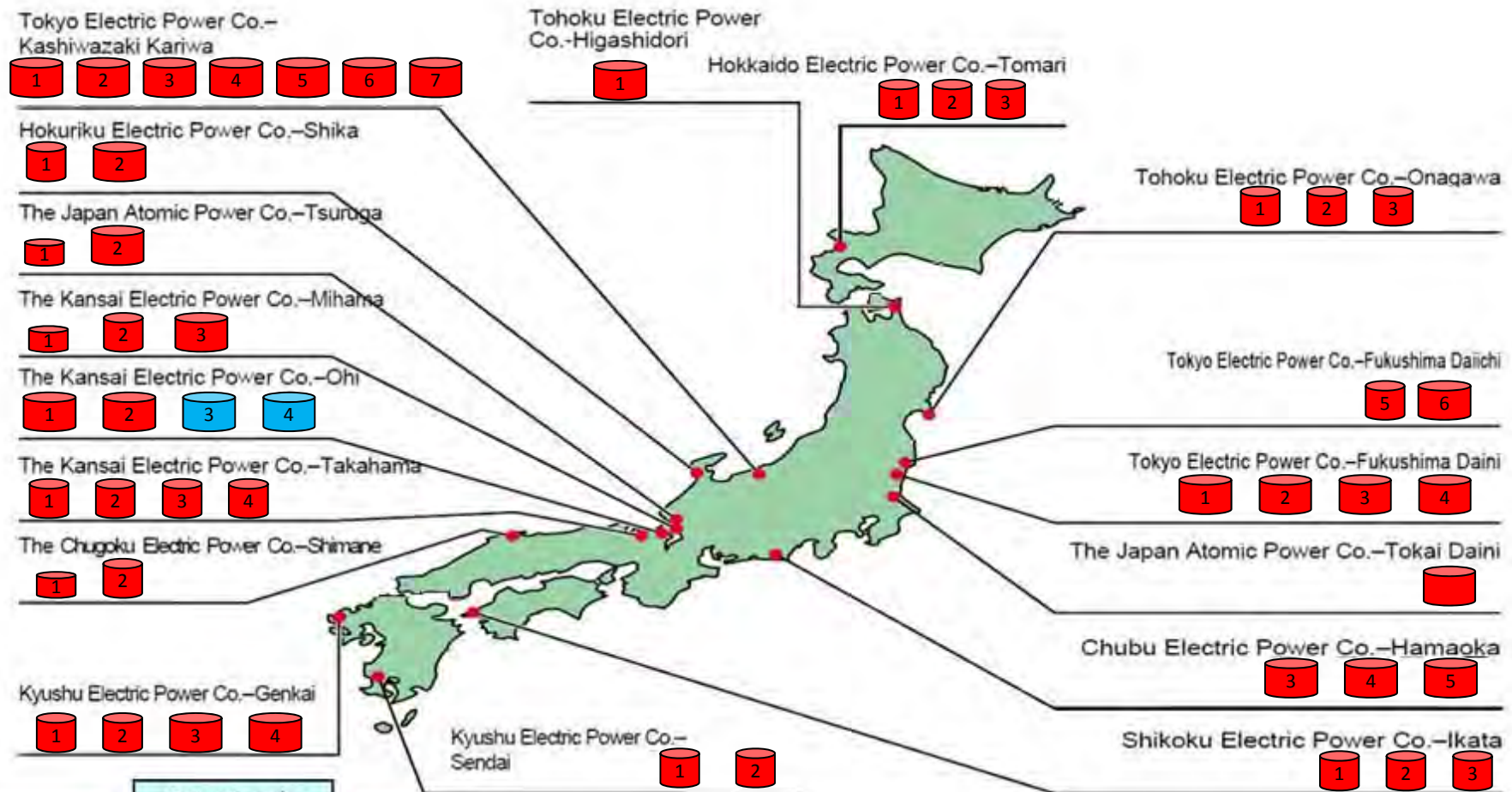
## 4. Nuclear Export Cooperation

- Statement by Minister Motegi (Press Conference on January 15, 2013)

Regarding nuclear export cooperation, the administration considers that Japan should utilize its accumulated nuclear technology and human resources for peaceful use of nuclear energy. We would like to continue to promote nuclear export cooperation between other countries with the highest safety level on the promise of the request from the countries.

# Nuclear Power Plants in Japan

- There are 50 units of nuclear power plants in Japan.
- **48 units (in red)** are in stoppage, and **2 units (in blue)** are now in operation.



Output scale



<500MW



<1000MW



≥1000MW



NPP in operation



NPP in Stoppage

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# Nuclear Export Cooperation

## <Former Administration's Statement>

### ○ “Innovative Strategy for Energy and the Environment” (September 14, 2012)

#### 3) Cooperation with the international community

- it is the responsibility of Japan to contribute to strengthening nuclear safety worldwide ... and to offer its nuclear technologies, of the highest standard in safety in the world to those foreign countries which wish to utilize nuclear technologies of our country, taking into account the situation and will of those countries.



### ○ **Statement by Minister Motegi (Press conference on January 15, 2013)**

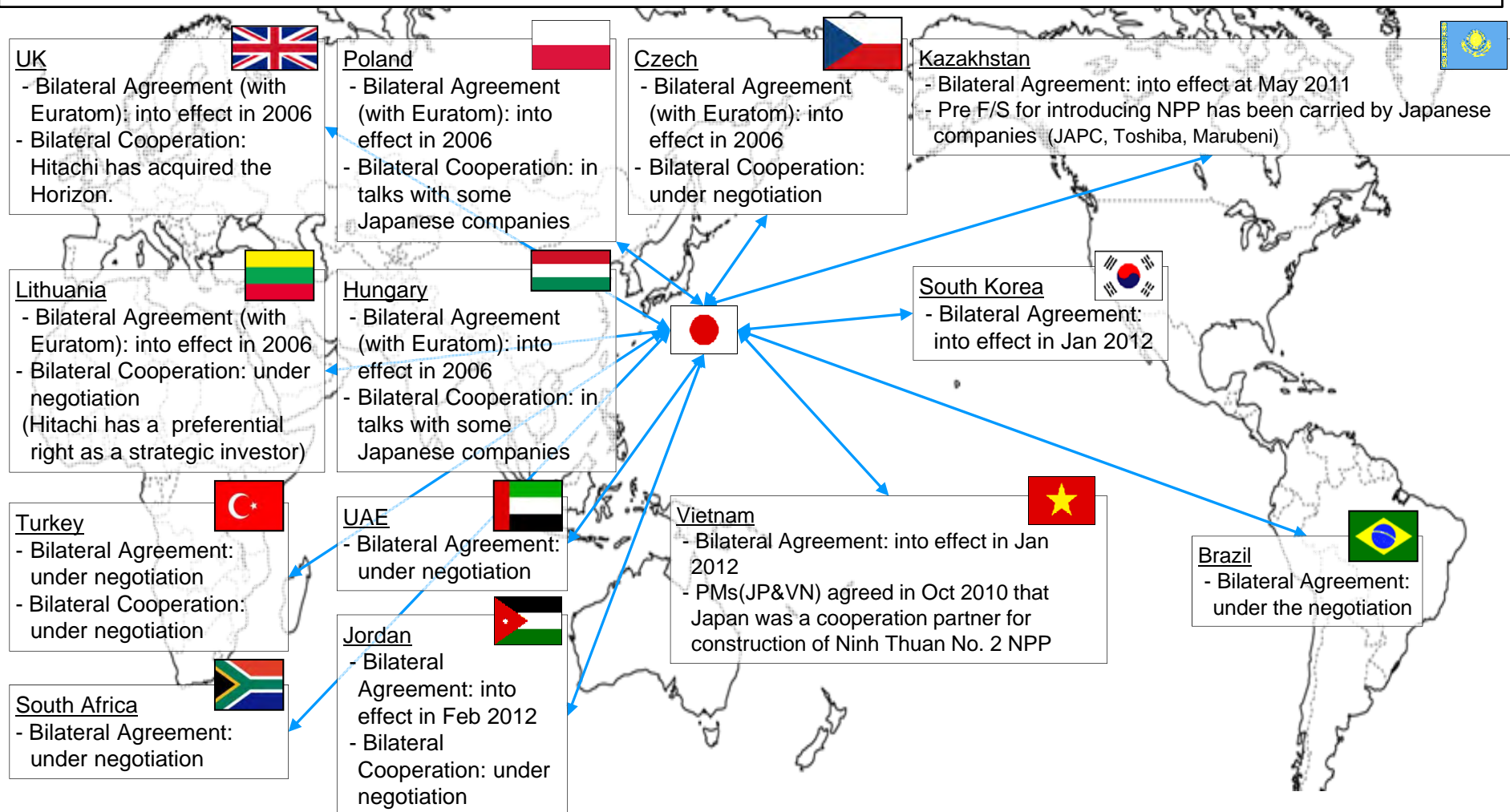
- Regarding nuclear export cooperation, the administration considers that Japan should utilize its accumulated nuclear technology and human resources for peaceful use of nuclear energy. We would like to continue to promote the nuclear export cooperation between other countries with the highest safety level on the promise of the request from the countries.



# Current Status of Bilateral Nuclear Cooperation

○ Japan recently concluded Bilateral Agreements for Nuclear Cooperation (i.e. 123 Agreement) with Kazakhstan (2011), South Korea, Vietnam, Jordan, and Russia (2012), and has been under negotiation with Brazil, India, Turkey, South Africa, and UAE.

○ Japan has also been in talks for the cooperation for nuclear power generation projects with the UK, Lithuania, Poland, Hungary, Czech and so on.



# The strategy area of nuclear power plant export

Kazakhstan	- New reactors are planned to be constructed by the mid of 2020's. JAPC, Marubeni Utility Services and National Nuclear Center Republic of Kazakhstan signed MOU of cooperation for new NPP.
Saudi Arabia	- 16 reactors are planned to be constructed by 2030. The feasibility study for site selection is on going from 2011.
UAE	- 16 reactors are planned to be constructed. (South Korea receives the order of four of them.) There will be a move for next tender procedures in 2013
Lithuania	- Construction is planned in Visaginas (1,300MW class) Operation is planned to begin about 2020. - In July 2011, Hitachi was identified as preferred strategic investor. <b>(Reactor: Hitachi/GE)</b>
Finland	- <b>GE Hitachi, Toshiba, Mitsubishi Heavy Industry, Areva and Korea compete</b> in the plan of TVO. - In February 2013, Toshiba was identified as preferred strategic investor in the plan of Fennovoima.
Czech Republic	- Two reactors are planned at Temelin site. (The first reactor is planned to start operation in 2020.) <b>(Competitors: WEC, Russia)</b>
Hungary	- Two reactors are planned at Paks site. (These reactor are planned to start operation in 2025-2030.)
India	- Assigned site: <b>Two U.S. sites (max: 12 reactors)</b> , Russia two sites (max: 12 reactors? ), French 1 site (max: 6 reactors? ) →Japan is still negotiating the 123 agreements with India.
Vietnam	- Two 1,000 MW class reactors are planned at each of 2 sites in Ninh Thuan Province. - Vietnam contracted with Russia for the first site and selected Japan as a construction partner for the second site.
Turkey	- Construction is planned at two sites: Akkuyu site (four 1,200 MW class reactors) and Sinop site (four reactors : scale undecided). - Turkey has agreed with Russia for the Akkuyu site project and is negotiating with Japan for the Sinop site project.
U.S.	- Two reactors are approved for Combined Construction and Operation License (COL). There are applicants for other 16 reactors. <b>(7 reactors : WEC, 3 reactors : GE Hitachi, Two reactors : Mitsubishi Heavy Industry, a reactor : Toshiba)</b> →In general, new construction is slumping by the shale gas revolution, stagnation of a guaranty of DOE's loan guarantee issuance, etc.

# Nuclear Cooperation by Japanese Government

## ➤ Financial support;

- JBIC (Japan Bank for International Cooperation): Export Credit, Investment Loans
- NEXI (Nippon Export and Investment Insurance): Trade Insurance, Investment Insurance

## ➤ Human resources development;

- Regulatory Cooperation (nuclear safety regulation, nuclear liability regulation etc.)
- Training Cooperation (for operation and maintenance of NPPs)

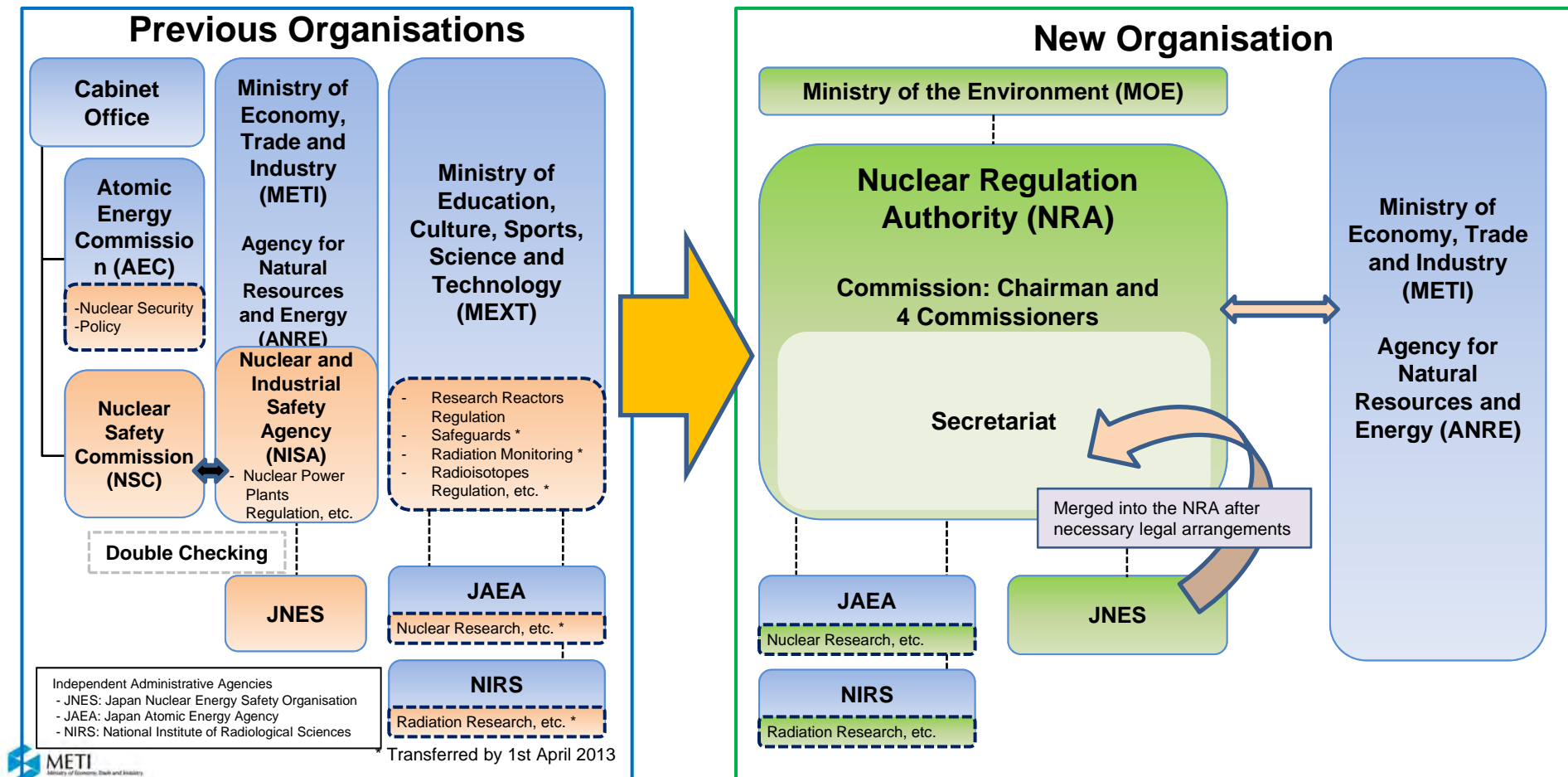
## ➤ Lessons Learned from Fukushima Accident

- Sharing safety measures information learned from Fukushima accident (seminars and workshops etc.)

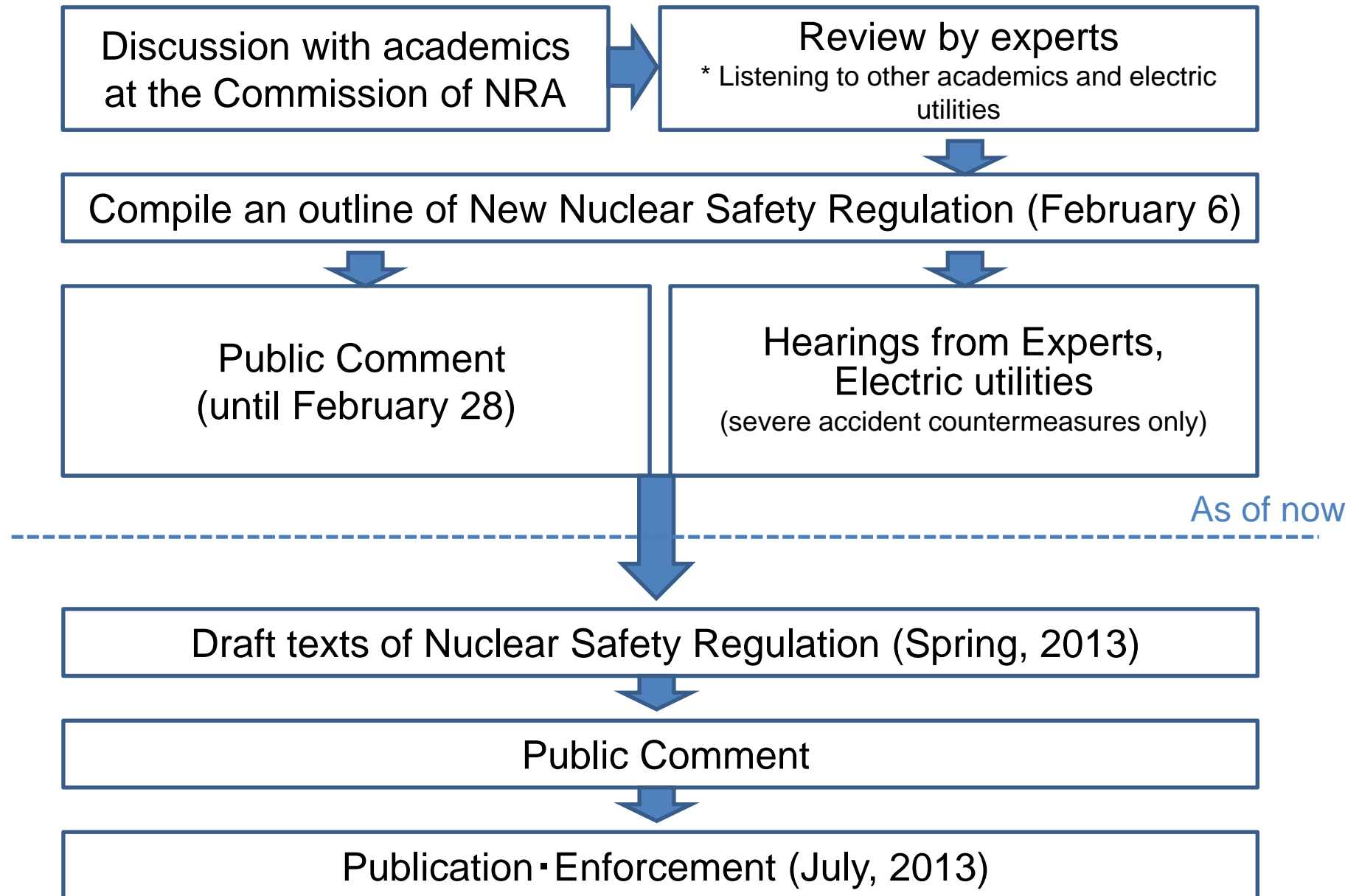
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# Administrative Reform of Nuclear Regulatory Organisations

- **Independence:** Separate nuclear regulation function from nuclear promotion function and establish the “Nuclear Regulation Authority (NRA)”, as an independent commission. Although NRA established under ministry of the Environment, the authority of appointing the Chairman and Commissioners, and of budget are separated from the authority of the minister.



# Schedule of the Introduction of the New Nuclear Safety



# **Thank you for your attention!**

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