Priority Subjects — Establishment of Optimal Risk Management

## Social and Institutional Analysis of Nuclear Business Environment in Japan

Background and Objective

Taking into account the lessons learned from the Fukushima Daiichi Nuclear Disaster, the institutional environment surrounding nuclear business has greatly changed, such as the independence of the regulatory authority from promotional administrative agencies. Electric power companies, who are the main bearers of the nuclear business, must not only carry out institutional analysis but also obtain an accurate picture of social consciousness, which is one of the great driving forces behind the environmental

change, in order to be able to steadily respond to the change.

This investigation analyzed social consciousness to forecast the direction of future institutional reforms in the Japanese nuclear industry, and provided case studies of how the nuclear industry in foreign countries or other industries in Japan cope with institutional environment change in order to obtain implications for the nuclear business in Japan.

Main results

## An investigation of the current status and changes of social consciousness relating to environmental and energy issues after the Great East Japan Earthquake

Through a social survey (3600 men and women in 11 cities across Japan), we grasped public opinion in regards to environment and energy issues (Fig. 1), public attitude toward energy-related organizations including electric power companies (Fig. 2) and the points that the general public thinks are important in assessing nuclear power technology, comparing the previous survey results to those of past years. (Fig. 3) (Y14004). We analyzed the results of the survey and proposed important points for electric power companies to communicate with local people and general public. The important points are as follows:

1) it is important for the electric power companies to make an appeal the public interest in general energy issues such as energy security before acquiring public understanding regarding the companies' activities; 2) it is useful for electric power companies to provide information and maintain communication with the public, "customizing" their interests, knowledge, and behavioral patterns; 3) it is important for electric power companies to understand energy issues including nuclear power that concern the public and appreciate the importance of restoring public trust.

## 2 An analysis of overseas meetings in nuclear siting areas

Some local stakeholder meetings have been established at nuclear siting areas in the UK and France. In the UK, a primary role of SSG (Site Stakeholder Group) is improving the quality of decision-making and risk management in operators through local stakeholder engagement. On the other hand, CLI (Commission Locale d'Information) in France contributes to ensure transparency through information sharing and communication among electric power industries, regulatory bodies and local communities. (Table 1)

However, in the case of both stakeholder meetings neither have the authority to permit the operation (including re-start) of nuclear facilities, nor play the role of "consensus building" in regards to controversial nuclear power issues. We showed that it was preferable for nuclear power policy and electric power companies in Japan to clarify the institutional position of such stakeholder meetings in local government and to reflect opinions of the local stakeholders.

## 3 A trend analysis of stakeholder meetings in non-nuclear fields

In Japan, some stakeholder meetings have been established in non-nuclear fields. We analyzed these stakeholder meetings and clarified two trends of the meetings (Table 2). The two clarified trends are as follows: 1) proposal-type meetings tend to illustrate a concrete direction and assessment of the siting points, and opinions expressed at such meetings

have influence on final decision-making of the business activities; 2) monitoring and dialogue-type meetings don't focus on short-term and directive consensus building but rather on forming medium and long-term relationships of trust. It is preferable for nuclear fields in Japan to utilize the latter option.

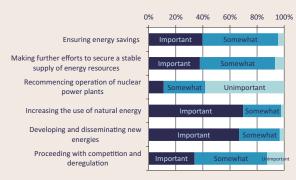


Fig. 1: Important aspects of energy policy in Japan

Expectations towards the utilization of natural energy and new energy are high, and support to restart nuclear power generation is low.

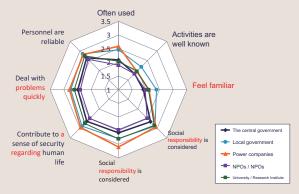
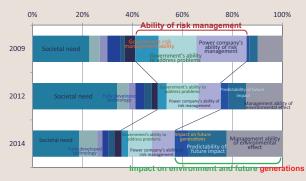


Fig. 2: Public attitude towards energy related organizations

The public has less confidence in the electric power industry and is not aware of their activities. Despite this, the public does appreciate the electric power industry as a contributor to a secure and affluent daily life.



 $^{\star}$  2009-2012 survey respondents resided in the Tokyo metropolitan area

Fig. 3: The most important criterion for evaluation of nuclear power generation

Before the earthquake of March 2011, "risk management competence" was the most common answer, but now, "impact on the future and environment" is considered the most important criterion.

Table 1: Comparison of site stakeholder meetings in the UK and France

	SSG (Site Stakeholder Group)	CLI (Commission Locale d'Information)
Major role	Quality improvement of decision-making and focusing on "input" through participation	Ensuring transparency through information-sharing and communication among stakeholders
Key characteristics	• Providing the fields of participation for "consultation" in planning • including issues regarding economy/employment in the area	Stipulating the duty of providing information to CLI and the right to ask questions from CLI     Being able to consider that municipalities are integrated into regulatory system
Influence over decision making	Substantially powerful influence over decision-making by NDA/operators	Distinguished discussion in CLI on decision-making by operators.
Legal base	NDA guideline; not legal binding	Law 2006-686 of 13 June 2006 concerning nuclear transparency and safety with decree
Chairman	Ex. local chief executive etc	Prefectural assembly chairman of the local area
Budget	From NDA	From utility
Regional coverage	Allocated depending on each issue	Distinction by emergency planning zone

In the case of both stakeholder meetings, neither have the authority to permit the operation (including re-start) of nuclear facilities, nor play the role of "consensus building" in regards to controversial nuclear power issues.

Table 2: Stakeholder meetings of non-nuclear fields

	Proposal-type	Monitoring/dialogue type
Key characteristics	·Illustrating a concrete direction in planning, policy, potential siting area, and assessment results concerning selecting sites for waste treatment centers, etc.	Mainly explaining and providing information from operators/administrative bodies     Not focused on short-term and directive consensus building but rather on forming medium and long-term relationships of trust
Influence over decision-making	Opinions expressed at meetings have influence over the final decision-making by operators	Good proposals in meetings are properly reflected by operators/administrative bodies
Major challenges	*How to respond to directions which differ from what administrative bodies etc. originally thought. *The recognition gap of position of the meetings in administrative bodies.	•The purpose of the meetings are questioned if the stakeholders believe their opinions are not reflected •Tend to be substantially explanation-oriented meetings
Cases	•River basin committee •Committee for waste treatment plant and crematorium etc.	•Monitoring committee for PCB disposal •"Responsible care" in chemical industries •Council for US military bases

Proposal-type meetings tend to offer a concrete direction and assessment of the siting points, and opinions expressed at such meetings have influence on the final decision-making regarding business activities. On the other hand, monitoring and dialogue-type meetings don't focus on short-term and directive consensus building but rather on forming medium and long-term relationships of trust.