

A Study on the Actual Conditions of Renewable Energy Use in Japanese Municipalities

FUJII Kohei: Graduate School of Economics, Hitotsubashi University
Naka2-1, kunitachi, Tokyo, Japan
fujiiikohei@mvp.biglobe.ne.jp

YAMASHITA Hidetoshi: Graduate School of Economics, Hitotsubashi University
hide@econ.hit-u.ac.jp

OKUSHIMA Shinichiro: Graduate School of Systems and Information Engineering,
University of Tsukuba
okushimas@yahoo.co.jp

Overview

The Great East Japan Earthquake and the Fukushima Daiichi nuclear disaster that occurred in March 2011 collapsed “Safety Myth” and “Cheap Myth” of nuclear power. Renewable energy as an alternative of nuclear power is receiving a lot of attention in Japan and many local authorities have introduced renewable energy in practice. However, it is not only that the introduction of renewable energy may be promoted simply in local area. The operation of mega solar power and large scale wind power by large companies outside produces electricity in local, while profits from its management flow out to the big city without returning to local. As a result, there is some possibility of expending the disparity between urban and rural area. In order to prevent this situation, it is necessary that local business entity himself operate the facility of renewable energy.

Based on the awareness of the above mentioned problem, we Hitotsubashi University Natural Resources-based Economies Project have been conducting researches on the use of renewable energy in Japanese local areas. As part of these researches, in light of the current situation that we have not been able to fully understand the actual condition of renewable energy at the local level, we took a survey of all 1741 municipalities across the country in collaboration with Asahi News.

Methods

An analysis method of our study is a questionnaire survey of all 1741 municipalities in Japan. The main purpose of the questionnaire survey is to capture the actual condition of renewable energy use at the local level. The main questions are as follows:

- Presence or absence of renewable energy facility in a local area (Who installed renewable energy facility ?)
- Whether local governments are promoting renewable energy use
- The reason why local governments are / or not promoting renewable energy use
- Issues in renewable energy use in a local area
- The roles that local governments should play in renewable energy policy
- The roles that national and prefectural should play in renewable energy policy

In this study, on the hypothesis that the accumulation of social capital and the historical development of environmental policy define the performance of renewable energy policy of local governments, we survey the enactment of regulations related to the environment policy, installation of residents meetings and council in local and activeness of residents activities.

Result

As of May 28, 2014(number of responses:288, percent of responses:16.5%), 73% local governments respond that there is a renewable energy facility in operation in a local area. The breakdown of that is as follows; solar power system 58%, wind power system 14%, biomass power system 7%, and biomass heat utilization 7%. The breakdown of the installation business entity is as follow; local government 33%, external private sector 28%, and local private sector 22%. It means that while local governments led many, external private sectors have entered relatively. For the promotion of renewable energy policy, it is shown that 92% of local governments are trying to promote renewable energy use because of reduction of greenhouse gases, local vitalization, and local production and

consumption of energy. On the other hand, some of issues for introduction of renewable energy also mentioned. After the response deadline of the end of June, we will analyze a full-fledged.

Conclusion

The central issue of this study is to understand the actual conditions of renewable energy use at the local in Japan by the questionnaire survey. In order to clarify the reason why local government introduce renewable energy, we have to analyze by means of not only questionnaire survey but also multivariate analysis using socio-economic factors, political factors and geographic factors, etc. In addition, we should do field survey about a case characteristic that was revealed by this survey. The future issues are to reveal the actual situation of renewable energy in the local in Japan by means of approach from both sides of quantitative and qualitative, moreover, to examine the policy responses needed in the future.