

Analysis of the Factors of Local Acceptance of Wind Power Generation Facilities

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Abstract : The government that declared 'de-nuclearization' pushes up renewable energy policies such as solar power and wind power as an alternative to nuclear power generation. However, local residents who are concerned about the development and natural disasters have been hit by opposition, and related businesses around the country are experiencing difficulties. There is also a voice saying that installing a large wind power generator will cause landslides, low frequencies and noise, which will have a bad influence. Renewal is only a harmful and disgusting facility for the residents. In this way, it is expected that extreme social conflicts will occur in the decision making process related to the locally unwanted land-use (LULU). The government's efforts to solve this problem have been steadily progressing, but the systematic methodology for bringing in active participation and opinion gathering of the residents has not yet been established except for the simple opinion poll or referendum. Therefore, it is time to identify the factors that concern the local residents about the wind power generation facilities, and to find ways to make policy decision-making possible. In this study, we analyze the perception of people about offshore and onshore wind power facilities through questionnaires or interviews, and examine quantitative and qualitative precedent studies to analyze them. In addition, the study evaluates what factors affect the local acceptance of wind power facilities. As a result of the factor analysis of the questionnaire items, factors affecting the residents' acceptance of the wind power facility were extracted from four factors such as environmental, economic, risk, social, and management factor. The study also found that the influence of the determinants of local acceptance on the regional acceptability differs according to the demographic characteristics such as gender and income level. This study will contribute to minimizing the conflict on the installation of wind power facilities through communication among the local residents.

Keywords : factor analysis, local acceptance, locally unwanted land-use, LULU, wind power generation facilities

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