

Renewable Energy and Local Sustainability: A Case Study of the Cancelled Wind Power Plan in Yonezawa City

KUNORI GAKUEN HIGH SCHOOL

Abstract

In 2015, the Paris Agreement set the goal of achieving carbon neutrality in order to keep the global temperature rise sufficiently low. Achieving carbon neutrality is a common goal shared by countries around the world, and many efforts can be seen today, such as making treaties and switching to power generation using renewable energy. Under these circumstances, this study will consider whether the sudden announcement to cancel the wind power generation plan in Yonezawa City, Yamagata Prefecture, was a reasonable decision.

1. Research background

The Paris Agreement aims to achieve carbon neutrality. In Yonezawa City the effects of global warming can also be seen. The average annual temperature in recent years has risen by 1.07°C compared to 40 years ago (Figure 1). Yonezawa City made a "Zero Carbon City Declaration" in its "Yonezawa City Global Warming Prevention Action Plan" in 2019. However, the amount of carbon dioxide emissions in 2019 was 747,000 tons, which is still far from the target (Figure 2). It is clear that introducing renewable energy is necessary to reduce CO_2 emissions. This study, I will consider whether the decision to cancel the Kurikoyama Wind Power Project was reasonable or not.

A major reason for the cancellation was that there was not enough agreement among citizens.

Wind power is necessary, but the decision to cancel the plan was reasonable because there was not enough explanation to citizens or agreement among them.

Consideration

Many of the signatures in opposition were collected by residents who had participated in study sessions etc. in advance.

→ People with negative opinions were more likely to participate, and the signatures may have strengthened this tendency.

There may also be differences in the background of each opinion based on factors like occupation and age.

Therefore, it can be thought that the recent opposing opinions and signature campaign were partly shaped by differences in how information was received and by bias in the group of participants.

2. Research method

- ① Examine opinions from explanation meetings and petitions submitted against the plan.
- ② Review previous on the effects of wind power generation.
- ③ Evaluate whether the cancellation was reasonable from economic and environmental perspectives.
- ④ Propose future actions to promote renewable energy projects in Yonezawa City.

3. Result

Feed-in Tariff (FIT) system

Noise pollution

The impact of building power transmission lines

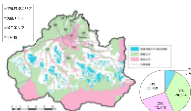
Damage to the landscape

Impact on wildlife

5. Next steps

Conduct a questionnaire survey

Create a plan to increase the introduction of renewable energy adoption in Yonezawa City



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