

# AN EMPIRICAL STUDY ON THE INFLUENCING FACTORS OF PUBLIC SUPPORT TO THE MODERN COAL-FIRED PLANT: TAKING PINGJIANG PLANT PROJECT AS AN EXAMPLE

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## Overview

China's coal-based power structure won't change for a very long time in the future. With the progress of coal-fired technology, the modern coal-fired power plant can achieve almost zero emissions. Owing to the promotion of public awareness of environmental protection and the deep impression of high pollution and high emissions of traditional coal-fired power plants, in recent years. There have been several boycotts against the development of coal-fired electricity generation projects in China, such as Heyuan of Guangdong province and Pingjiang of Hunan province, which affected the social and economic stability and normal operation of national energy planning projects. Guiding the public to correctly understand and objectively evaluate the project of the modern coal-fired power plant has become an important strategic issue in China's energy development.

This paper empirically analyzes the influencing factors of the public support for the modern coal-fired power plant. Specific parts include literature review, research methods, research hypotheses and conceptual model, empirical research findings and conclusions and recommendations.

## Methods

Based on literature analysis, considering the actual Pingjiang power plant project, this paper chooses the sense of place, trust in the government and enterprise, and environmental attitudes as independent variables, benefit perception and cost perception as intermediary variables, the public support as the dependent variable, and proposes research hypotheses and conceptual model. Data needed in the empirical study is collected through the interview and questionnaire survey methods and hypothesis testing is carried out through exploratory factor analysis and structural equation modelling.

## Results

First, the sense of place has an indirect negative impact on the public support through benefit perception (The coefficient is -0.043). The hypothesis of the direct impact and the indirect impact through the cost perception between the sense of place on the public support are rejected.

Second, trust in the government and enterprise by the public has a direct impact on the public support, which has an indirect positive effect on the public through benefit perception and cost perception too (The total coefficient is 0.630).

Third, the environmental attitude has indirect positive impact to public support through benefit perception and indirect negative impact to public support through cost perception too (The total coefficient is 0.064). The hypothesis of the direct positive impact and indirect negative impact through benefit perception of the environment on the public support are rejected.

## Conclusions

The paper builds the structural equation model to verify the influence of the sense of place, the environmental attitude and trust in the government and enterprise the public support, which provides theoretical basis for policy. Some suggestions have been proposed including: respect for the public interest demands, change the model of

government decision, guide the public participation, focus on core stakeholders, etc. Which provides the reference of decision in the process of government building modern coal-fired power plants for getting public support.

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