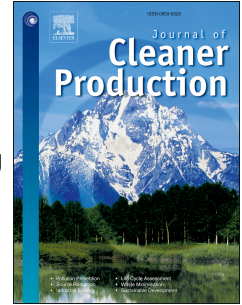


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Identifying and analyzing barriers to offshore wind power development in China using the grey decision-making trial and evaluation laboratory approach

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Abstract: China has attached great importance to offshore wind power development due to rich offshore wind resources and the proximity to load centers. However, hindered by various barriers, the growth of offshore wind installed capacity is much slower than the government's expectation. This study proposes a barrier-analysis framework for offshore wind power based on the grey decision-making trial and evaluation laboratory (DEMATEL) method. Firstly, four categories of barriers affecting offshore wind power in China are identified through a literature survey and interaction with experts, including economic, technological, environmental and social-political barriers. Secondly, this study investigates the prominence of these barriers and the cause-effect relationships among them using the grey DEMATEL approach. Then, a sensitive analysis is conducted by considering different scenarios of experts' weights to verify the robustness of analysis results. Finally, this study further validates the results with experts' feedback and the existing literature. According to the results, six barriers are regarded as key barriers to Chinese offshore wind power industry, and corresponding strategic measures are suggested to eliminate these key barriers and promote its sustainable development. This study can provide a valuable insight into barriers to

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