

Wind energy in Malaysia: past, present and future

ABSTRACT

In recent years, the Malaysian government has attempted to develop renewable energy (RE) through newly introduced regulatory supports after 30 years of failure to achieve a greater than one percent non-hydroelectric RE share in the total power mix. The government is currently assessing the onshore wind energy potential in Malaysia to determine the possibility of including wind energy in its FiT scheme. However, wind energy development in this low-energy location is not as straightforward as it would seem. Many previous wind studies in Malaysia have relied on poor data and simplistic or inadequate methodologies, resulting in grossly inaccurate estimates of wind potential. Moreover, two wind turbine generator demonstration projects executed by the government have failed. However, above all, the greatest factor impairing the progress of RE development in Malaysia is the weak and uncertain political support of these efforts. This lack of robust support is particularly true where fossil fuels are still heavily subsidised amid the subsidy reform in 2013. A review of global wind energy development shows that successful projects depend heavily on a sound and robust regulatory framework supported by strong and consistent political will. This dependence is not observed in Malaysia, where the government continues to subsidise private independent fossil fuel power producers but levies taxes on electricity consumers to fund RE development. These levies do not effectively support RE development, given the magnitude of the RE fund compared to fossil fuel subsidies. In the absence of strong and sincere political will, the progress of RE development in Malaysia has been notably slow. As a result, the prospect of wind energy development in Malaysia currently remains vague. This paper discusses the above issues in detail and recommends selected regulatory mechanisms based on the global experience of supporting RE development in Malaysia.

Keyword: Wind energy; Energy policy; Renewable energy (RE); Regulatory and political framework; Global wind energy; Low wind speed region