

Identification of Potential Large Scale Floating Solar Sites in Peninsular Malaysia

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Abstract : Increased concerns and awareness of environmental hazards by fossil fuels burning for energy have become the major factor driving the transition toward green energy. It is expected that an additional of 2,000 MW of renewable energy is to be recorded from the renewable sources by 2025 following the implementation of Large Scale Solar projects in Peninsular Malaysia, including Large Scale Floating Solar projects. Floating Solar has better advantages over its landed counterparts such as the requirement for land acquisition is relatively insignificant. As part of the site selection process established by TNB Research Sdn. Bhd., a set of mandatory and rejection criteria has been developed in order to identify only sites that are feasible for the future development of Large Scale Floating Solar power plant. There are a total of 85 lakes and reservoirs identified within Peninsular Malaysia. Only lakes and reservoirs with a minimum surface area of 120 acres will be considered as potential sites for the development of Large Scale Floating Solar power plant. The result indicates a total of 10 potential Large Scale Floating Solar sites identified which are located in Selangor, Johor, Perak, Pulau Pinang, Perlis and Pahang. This paper will elaborate on the various mandatory and rejection criteria, as well as on the various site selection process required to identify potential (suitable) Large Scale Floating Solar sites in Peninsular Malaysia.

Keywords : Large Scale Floating Solar, Peninsular Malaysia, Potential Sites, Renewable Energy

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