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## Data Article

## Data from renewable energy assessments for resort islands in the South China Sea



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## ABSTRACT

Renewable energy assessments for resort islands in the South China Sea were conducted that involves the collection and analysis of meteorological and topographic data. The meteorological data was used to assess the PV, wind and hydropower system potentials on the islands. Furthermore, the reconnaissance study for hydro-potentials were conducted through topographic maps in order to determine the potential sites suitable for development of run-of-river hydropower generation. The stream data was collected for 14 islands in the South China Sea with a total of 51 investigated sites. The data from this study are related to the research article “*Optimal combination of solar, wind, micro-hydro and diesel systems based on actual seasonal load profiles for a resort island in the South China Sea*” published in Energy (Khan et al., 2015) [1].

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## Specifications Table

Subject area	Physics
More specific subject area	Meteorology; Energy
Type of data	Table, figure

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How data was acquired	Malaysian Meteorological Department.
Data format	Department of Survey and Mapping Malaysia.
Experimental features	Filtered
Experimental features	Meteorological data extrapolation based on linear extrapolation technique using Matlab software.
Data source location	Topographic map data extraction based on hydropower guidelines.
Data accessibility	South China Sea Islands, East Coast of Peninsular Malaysia
	Data is provided in supplementary materials directly with this article

**Value of the data**

- The data describes the meteorological and topographical conditions of the resort islands in the South China Sea
- This data contains key information for renewable energy assessments for resort islands in the South China Sea.
- This data can be used for other research fields that involve the usage of solar radiation, wind speed, rainfall and evaporation data.
- The topographic map data is valuable for determining the potential run-of-river hydropower sites in many resort islands in the South China Sea.

**1. Data**

The data consists of meteorological and topographical data for resorts islands in the South China Sea.



Fig. 1. Selected islands in the South China Sea.

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