MAPPING OCEAN WIND ENERGY POTENTIAL AROUND SULAWESI AND MALUKU ISLANDS

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ABSTRAK

In order to harvest ocean wind energy around Sulawesi and Maluku Islands, several studies have been conducted to assess the use of a mobile floating structure (MFS) in the sea areas. From the studies, the monthly locations of the MFS were determined by computing one particular location on each sea area. The MFS locations were determined to be the locations with highest energy density every month. However, in order to obtain more optimal results, an interpolation method need to be implemented to determine the energy density covering all sea areas. In the present study, Kriging method is adopted to interpolate wind energy density on all areas based on the results obtained previously. Energy density maps are then drawn using software packages called ArcGIS and ArcMAP. Based on these maps, the locations of the MFS every month can be determined more accurately.