

Feasibility study of wave energy potential in southern coasts of Caspian Sea in Iran

ABSTRACT

Wave energy as a predictable renewable energy, can be directly captured from surface wave, which has a significant power. Although the application of wave energy in recent years is rapidly increased all over the world especially in Europe, but there is a lack of research in this field in some developing countries. Hence, in this study a new research about potential of wave in Southern border of Caspian Sea in Iran is performed. Moreover, the climate effect that has contributed to the increasing wave power is also investigated. The results show that Mazandaran seashore in north of Iran has a proper potential for extracting electricity from sea wave. Furthermore, based on a comparison of established wave energy converters, Wave Dragoon is a suitable converter for the study case.

Keyword: Air mass; Climate; Renewable energy; Storm; Wave converter; Wave energy; Wind