TEMPORAL COMPLEMENTARITY ANALYSIS OF SOLAR PHOTOVOLTAIC, ONSHORE, AND OFFSHORE WIND RESOURCES IN THE IBERIAN PENINSULA

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- Solar photovoltaic & onshore wind power are the main sources of renewable energy in Iberian Peninsula (IP).

- Offshore wind resource has great potential for exploitation in the IP [1,2,3].

- The annual cycle of energy demand in the IP peaks during winter and summer. Yet, neither the annual cycle of onshore wind nor solar PV energy generation cover individually this demand curve [4,5].

Potential added value of offshore wind energy: does it present substantial temporal complementarity to solar PV and onshore wind energies in the IP, particularly in winter and summer?

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[4] Jerez et al. (2013). Energy Procedia, 48-57, 40;
[5] Garrido-Pérez et al. (2021) Climatic Change, (2021), 50, 165(3-4).

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Offshore wind resources around Iberian Peninsula: not just more, but also better