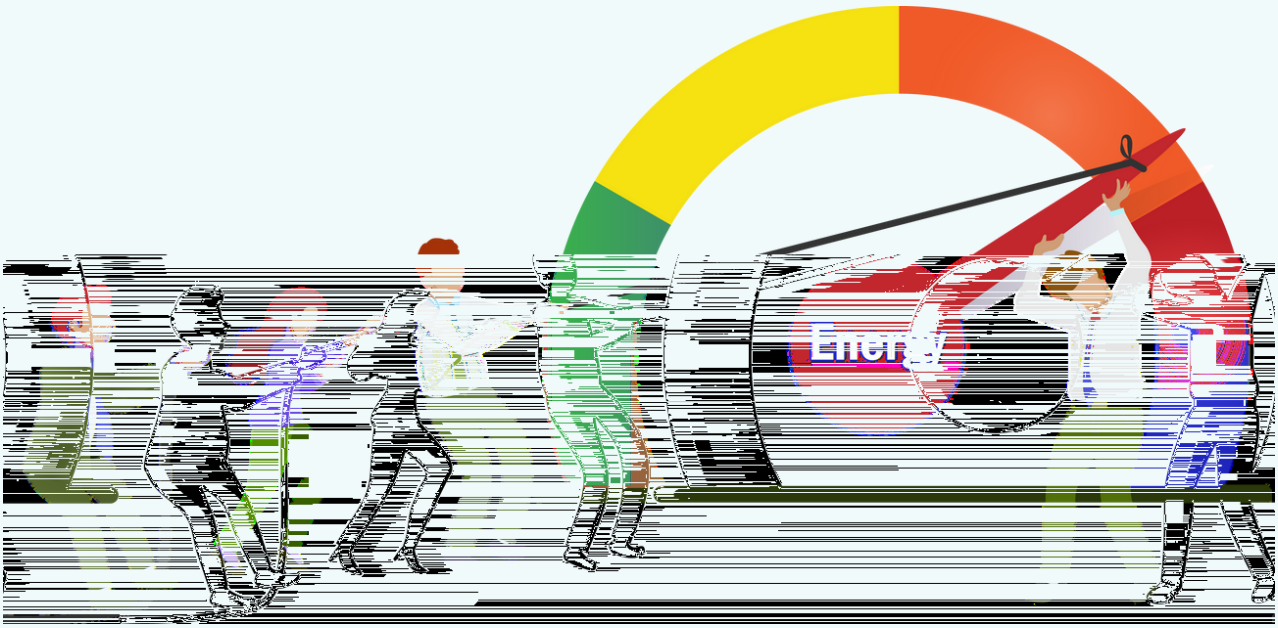
MICAT

Multiple Impacts Calculation Tool

Empirical basis of Economic Impacts Avoided Additional Energy Generation Capacity



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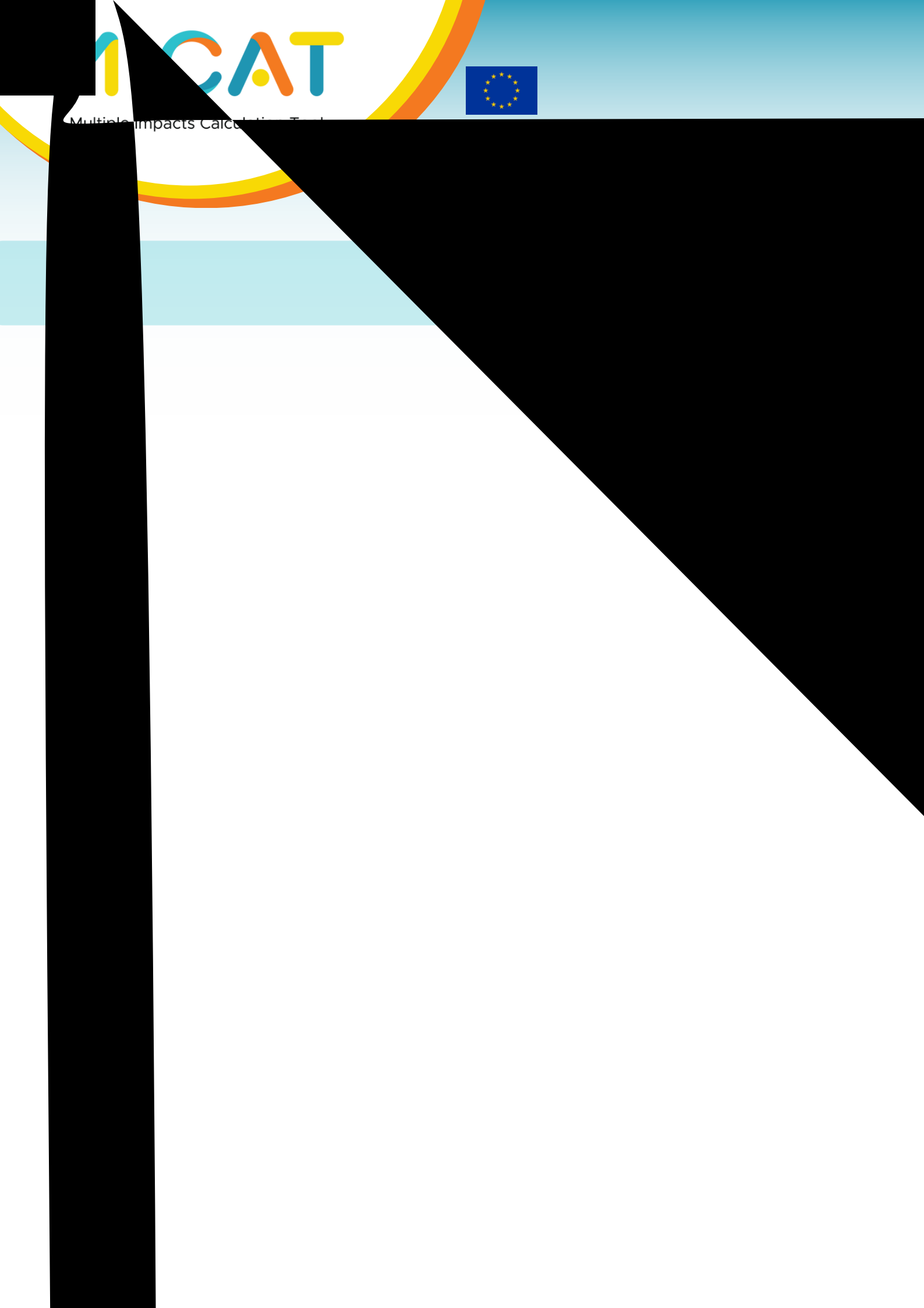

In order to assess this impact, the underlying assumption is that the energy savings merely cushion the need for additional renewable energy sources. This is mainly due to two reasons: new electric capacities should be renewable to comply with the Paris Agreement and the Fit-for-55 package and predominantly include photovoltaics (PV), onshore and offshore wind; the fact that the decommissioning of fossil fuel and nuclear power plants is mainly planned politically rather than as a response to market signals.

To quantify the reduced need for additional capacities, the regional respective full load hours of PV, onshore and offshore wind are considered in the form of a utilisation factor :

In this equation, describes the actual energy generation of a given RES technology in a specific country, whereas specifies the RES technology's optimal energy output. Then, the shares of the different RES technologies in new electricity capacities are taken into account, using the average of the PRIMES projections for 2020, 2025, and 2030:


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Mobility Impacts Calculation Tool