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Growth in the photovoltaic energy use in Brazil

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In a world of ever growing interdependence, energy is increasingly becoming a subject of international dispute, both on economic as well as political level. Responding to this challenge, national and international decision-makers are seeking new strategies to diversify the energy mix of their home countries and arrange for a more sustainable production. Brazil has vast amounts of untapped renewable resources with a number of advantages over developed countries. However, the role that renewable energies plays in the Brazilian market is still quite small (except for hydro power). Drawing from the German example, this paper aims to develop a guideline for a Brazilian incentive program that encompasses the so far neglected photovoltaic technology, and takes into account the country's peculiarities. It highlights the potential and advantages that Brazil might have regarding gridconnected photovoltaic systems and makes a study of grid parity. This study was developed trough scenarios that identify when, how and in which regions of the country, photovoltaic generation would be competitive with conventional generation. The grid parity study of photovoltaic technology in Brazil was compared to a similar study developed in Europe. It showed, no matter the current cost of photovoltaic technology, it can be competitive with conventional generation in 2020 at the sunniest regions of Brazil, considering the worst scenario. Keywords: Legislation; Projects in Brazil; Solar panels; Solar resource.

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