



# 10<sup>th</sup> INTERNATIONAL WORKSHOP ADVANCES IN CLEANER PRODUCTION Report

“TEN YEARS WORKING TOGETHER FOR A SUSTAINABLE FUTURE”

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## The importance of solar energy for sustainable and social development

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### Abstract

The use of polluting energy sources in meeting the growing demand for energy directly impacts the environment, affecting the present and future generations. The shortage of non-renewable sources, fueled by the energy crisis, has led to intensive studies and research into the diversity of the energy matrix, implementing alternative and renewable energy sources. Thus, the objective of this article was to evaluate the application of solar energy as a means of promoting sustainable and social development in single family social housing (HISU), state of Goiás. The energy efficiency actions implemented in the HISU, mainly in relation to photovoltaic generation, provided an average consumption saving of 145.0 kWh month<sup>-1</sup> to only 21.9 kWh month<sup>-1</sup> per HISU, that is, a reduction of 85,0%. Environmentally, this energy saving is equivalent to avoiding the emission of 73.53 kg CO<sup>2</sup> year<sup>-1</sup> per HISU in the atmosphere.

**Keywords:** *Renewable Energy, Energy Efficiency, Housing of Social Interest (HIS).*

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