

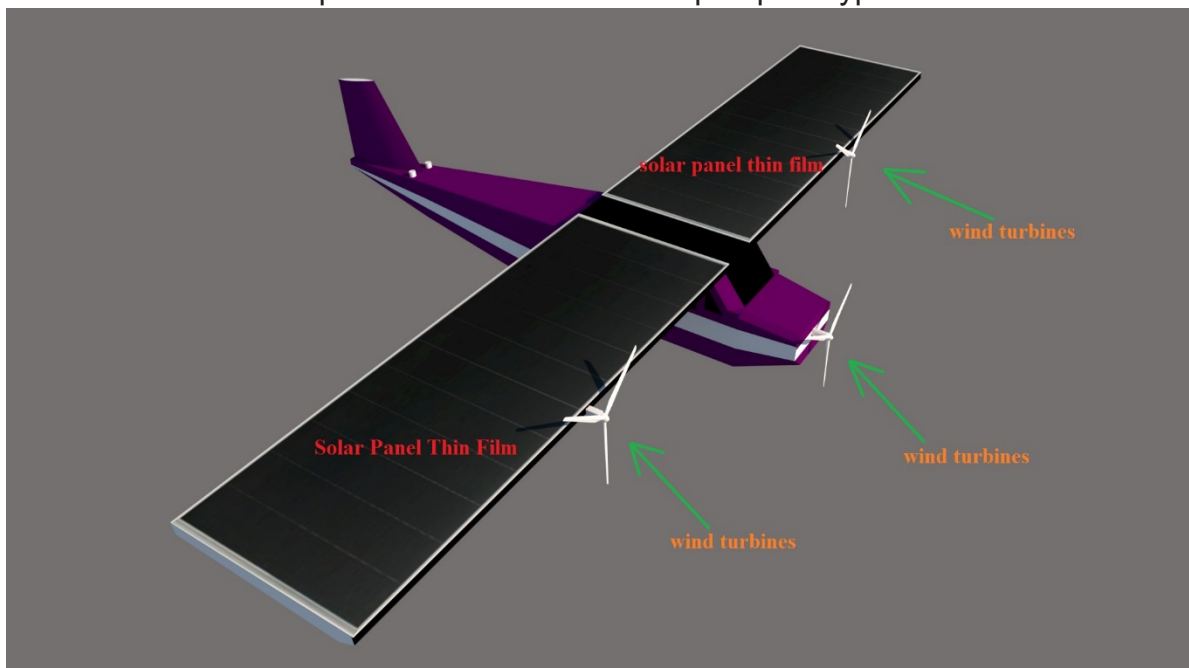
# Electric Distributed Generation Through a Solar-Wind Airplane Prototype Model in the Amazon Region

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Brazil has as your main electric power generation, the water system, which accounts for around 61% of its entire energy matrix, having wind, solar and biomass, accounting for 18.4% [6]. Countries that depend almost entirely on only one source, are more susceptible to energy crises, as can be seen in [1,2,3,4] and also has a higher volatility in energy prices for residential and public consumption(Street lighting) [5]. Aiming at greater participation in the national energy matrix of renewable energy sources and the use of existing underused energy structures, the present work proposes in the metropolitan region of Belém, conducting a study and prototyping, from a wind generator, with aeronautical format, which aims co-energetic hybrid generation between solar and wind, intended to be installed on electrical network poles and in this way contribute to reducing the rate of street lighting.

After studies, was mapped in the metropolitan region, the best points wind incidence and solar irradiation, for wind generator interconnection in NIS (National interconnected System).

Results with 8.9% energy savings were found, which shows a promising future in research and mass implementation of the developed prototype.



## bibliography

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