This Project contributes to the development of DC-DC converters for projects with a greater focus on the conversion of renewable energy. We decided to use and analyze the SEPIC converter in cars for advantages that this topology offers such as: the insulation between the panel and the storage system; and the characteristic of handling the output voltage for lower, equal or greater inputs from the panel. The latter allows the panel to be easily changed to work with the same battery, making it flexible to the inputs and outputs of the system. In this project we will simulate a prototype as an initial approach of a potential study of the integration of renewable energy sources with electric vehicles.