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Abstract— When the oil crisis occurred in 1970s, researches focused on renewable energies began to be developed. By using photovoltaic, the sun energy can be converted directly into DC electricity. It is clean and environmentally-friendly energy. The progress in power electronic technology has enabled *PV* module to be connected to the utility grid so there are some advantages offered. Commonly, this implementation needs complexity in control which results in high cost. This paper proposed a method to connect *PV* module to the grid by using PWM converter operated as a controlled current source without requirement of the synchronizing control circuit. This method has simplicity in control and is able to share the electric loads between utility and *PV*.

Keywords—photovoltaic, PWM converter, controlled current source