ABSTRACT

Solar Electric Calculator is an application for On-Grid Solar Rooftop Power Plant that will calculate optimize value of, without considering economical energy calculation. ESDM also issued an application called E-SMART which calculate profit of Solar Rooftop Power Plant that using NPV Method, it's not using economical energy calculation. In accordance with the regulation of the Minister of Energy and Mineral Resources No.49 of 2018 which has allowed Solar Rooftop Power Plants to be connected to PLN (Persero) will encourage interest of using Solar Rooftop Power Plants. Energy Calculation can be calculate with Levelized Cost of Electricity, this calculation has the parameters of project period, discount rate, investment, operation and maintenance and annual energy generated by the system. It is necessary to develop applications using Levelized Cost of Electricity

Then, my final project entitled Profit Analysis of Roof Power Plant Using Levelized Cost of Electricity Method that will develop an application to help consumers who will use On-Grid Rooftop Solar Power Plants. This application using PyQt5 in Python Programming and the method that used is Levelized Cost of Electricity. With this application, the writer will analyze the profit of PLTS On-Grid With comparing between cost without PLTS and cost with PLTS. The profit of On-Grid Rooftop Solar Power Plant can be optimized with revenue from export-import energy. Based on the results of experiments with three types of consumers, residential has a profit percentage of 49,1%, commercial has a profit percentage of 51% and industrial has a profit percentage of 50,2%

Keyword: Solar Electric Calculator, Levelized Cost of Electricity, Profit PLTS