Solar Panel System

The project:

I start this project because, I bought a solar panel and I wish build a system capable of control it.

Basic functions:

* Emergency break
* Switcher line (switch between the solar energy or the energy of the company).
* Alert about the state of the system and the produced energy.

Components:

* Hardware:
  + Arduino UNO.
  + Controller board (built by myself) (gonna have thyristors).
  + USB cable (Through this way I’m going to make the connection, more later I will replace it for an ethernet cable).
  + Circuit breaker.
  + Solar panel.
  + Batteries (I’m going to make an off-grid system first) (the first will be of car type).
  + Batterie charger/Solar panel Controller.
* Software:
  + Arduino logic.
  + Python script for make the connection between the mobile or PC.
  + C# Interface (the last thing to do).
  + Flutter for mobile interface (or could be written with c# also with Xamarin).