Consider a 2 kW PV array (DC power rating under STC), that is placed on a roof of a building in Vegas, NV. The array faces south at a 25 degrees. Assume the following:

a. Mismatch loss: 3%
b. Loss due to dirt: 6%
c. Inverter efficiency: 95%
d. Cell temperature under NOCT: 45°C

(1) Use TMY3 data to determine the monthly energy production by the above array.
(2) Repeat (1) using PVWATTs calculation tool. Compare the results. Describe in a couple of sentences the discrepancies.