LECTURE 3 – QUIZ

Questions on slide 19

Question 5: a well oriented PV system of 7x7 m² with 20% module will provide annually in Switzerland (approximately)?

    a) 1000 kWh

    b) 20000 kWh

    c) 10000 kWh

Solution:

In Switzerland, 1000 h of sun in a year give 1000 kWh/m² annually. For 1 m² of 20% module, this number reduces to 200 kWh/m² annually. For 50 m², we get 10000 kWh annually.

Question 6: If this system is placed on a south facade, without shading, by how much will the power be reduced?

    a) by 10%

    b) by 30%

    c) by 60%

You can have a look on this website to check the performance of PV systems: https://re.jrc.ec.europa.eu/pvg_tools/en/tools.html

Question 7: The Performance ratio of a standard Si system will be higher …

    a) in Qatar

    b) in Sweden

    c) In Germany

Solution

The PR is not dependent on irradiation, while the important parameter is the efficiency, which will be higher in a cold weather (less temperature losses).

Question 8: The energy yield of a PV system will be higher …

    a) in Qatar

    b) in North pole

    c) In Germany

Solution:

The energy yield is dependent on the irradiation, so it will be higher in sunny places (I get more kWh).

:

a) DC coupled configuration ?

b) **AC coupled configuration** ?

c) I don't know..

Solution :

The solar inverter will go from DC to AC, while the main panel does not have any DC converter inside. So the battery is directly connected to the AC.