The case involves a 10 MWp Photovoltaic Utility Scale Solar Plant.

- Installed Capacity – 15 MWp
- Solar yield: 1500 hours per year
- Construction price of the plant: 800 USD/kWp

The plant will have to face the following Operating Expenses during its 20year lifetime:

- Operation and Maintenance price: 12 USD/kWp/year indexed at inflation
- Rental of the land: 20,000 USD/year indexed at inflation

The plant has a PPA of 55 USD/MWh3 and should be indexed at inflation, for the moment fully indexed (100%). Make a simple financial model of the plant. Please make it clear and clean, with for example the following guidelines:

- Use a separate sheet for inputs and calculations,
- Format (figures, colors, font) and respect it in the whole document,
- Don't use too long formulas, and you will diminish the chances of making errors

3. Project Finance debt on the following terms:

I. Debt duration: 16 years
II. Interest rate: 4% per annum
III. Financing 80% of the total cost
IV. Repayment in constant instalments from the project's cashflow.

It is asked to build the financial model and make it evolve with the different questions. Please separate the modelling blocs you add when you try to answer the different questions. Write up some conclusions and discuss risks, strategies and propose alternatives. The screenshot below is an example of some of the inputs you may be given. Make sure can complete this. In this example there are different prices in different periods and you should make some adjustments.

	C	D	E
3			
4	**CAPEX**	**Unit**	
5	Beginning	Date	1-Jan-20
6	End	Date	31-Dec-20
7	Construction duration	Months	12
8	CAPEX	m€	50
9	Amortization duration	Years	20
10			
11	**Revenues**	**Unit**	
12	Production	MWh/year	100,000
13	Electricity price - Part 1	m€/MWh	60
14	Electricity price - Part 2	m€/MWh	35
15	Operation Part 1 duration	Years	10
16	Inflation revenues	%/year	1.00%
17			
18	**OPEX**		
19	Beginning	Date	1-Jan-21
20	End	Date	31-Dec-40
21	Operation duration	Years	20
22	Total costs	m€/year	1
23	Inflation costs	%/year	1.00%
24	Income tax	%	30%
25			
26	**Financing**		
27	Gearing	%	80%
28	Interest rate	%	3%
29	Debt tenor	Years	20
30			