

Jagan Institute of Management Studies
End-Term Examination, September, 2016
Trimester IV – PGDM 2015-17

Financial Modelling
ET_PG_FM_0310

Time: 2 Hrs.

M. Marks: 30

INSTRUCTIONS: This is a practical examination and attempts the question on the system.

Q 1 **Case Study**

You are the financial credit analyst with a bank. The CEO of ABC Solar Pvt Ltd, a solar power developer has approached your bank to seek loan for one of its projects.

During your discussions with him, you are able to gather the following information:

A 4 MW¹ solar power project is being built in Madhya Pradesh, India. The project shall be built upon private land and has been awarded the requisite approvals and permissions. A 25 years Power Purchase Agreement (PPA) has been executed with MP state discom at a tariff of Rs 8.50 per unit. (ie for 25 years Madhya Pradesh state through its discom will buy the power from this power plant at the rate of Rs 8.50 per unit)

The expected time for completion is 6 months and the scheduled COD (SCOD) is 1st April 2017. Accordingly, the construction activity shall commence from 1st October 2016.

The developer has approached your bank for financing this project at a DER of 70:30 and at an interest rate of 11.75% p.a.

You are required to project the financial statements of the company for 15 years and analyse the project viability (through calculation of Project IRR & Equity IRR); and debt serviceability of this project (through DSCR) and advise if the funding should be done or not.

The next day you visit the office of ABC Solar Pvt Ltd and interact with

¹ 1 MW = 1000 KW

their team. The following are the notes you prepare.

- Expected PLF – 18% pa²
- Depreciation rates (SLM)
 - o Land – 0.0%
 - o Plant & machinery – 5.28%
 - o Building & Civil works – 3.34%
- EPC cost phasing

Oct-16	Nov-16	Dec-16	Jan-17	Feb-17	Mar-17
10%	15%	15%	20%	20%	20%

- Project Cost details

Particulars	Rs crores
Land	3.21
EPC Cost	24.78
Pre-Ops	3.00
Contingency	0.50

- Operating expenses estimated as under:

O&M Costs	3	Rs lakhs per MW per annum
Administrative Expenses	9.00	Rs lakhs per annum
O&M & Admin escalation	5%	YoY
Insurance Expenses	0.30%	of the Net Block

- Project has a 3.5 months of receivable cycle.
- As an incentive by the government to promote renewable energy, the tax rate for the solar developer company has been reduced to 20% pa.
- Upfront Equity – 100% equity upfront
- As the policy of your bank you can lend a maximum loan tenor of 15 years, with each year DSCR being at least 1.10

² PLF stands for Plant Load factor. Generation from a power plant is calculated as under:
 No of units of generation = Plant Capacity (in KW) X PLF% X 365 X 24