The power plant will be built in Senegal and the project will have a 25-year power purchase agreement (“PPA”). The power plant is build operate and transfer transaction -- it is transferred to the government ("BOT"). If the capacity factor is less, the investor does not take the risk. The Tariff that the project will receive is set at 105 USD/MWh. Make a model for the project and calculate the equity return.

Technical specifications:
· Net capacity 200 MW
· Net heat rate 8,000 kJ/kWh (45.0% electrical fuel efficiency)

Capital costs incurred during construction:
· EPC turnkey price of the power plant is 700 €/kW
· O&M mobilization of 2 million USD
· Construction time of the plant is 12 months
· Please consider any other costs the IPP could incur during construction

- Operating costs:
  · Gas price of 10 USD/GJ
- · Fixed O&M fee of 150,000 €/month (represents the salaries of the operating staff)
  · Other costs during operations
- Variable O&M fee of 5 USD/MWh (represents the maintenance costs of the power plant)

Completing the task with a simple model is more important than building an accurate and complex model that doesn’t leave you time to deliver the outputs.

My answer to this case associated with the video is attached to the button below.