INSTRUCTIONS:

Build a financial model with the following workbook structure:

a. Assumptions Sheet
b. Timing & Escalation Sheet
c. Construction Sheet
d. Operation Sheet
e. Depreciation & Tax Sheet
f. Funding Sheet
g. Cash Flow Waterfall Sheet
h. Financial Statements Sheet
i. Debt Ratios & Equity Return Sheet
j. *Bonus:* Scenario Selection Sheet

The financial model should be in USD million.

Although there is no universal model structure, the model developed by the candidate is expected to:
i. Follow generally accepted modeling standards (e.g. avoid embedded hardcoded numbers in formulas, uniform timeline (columns) across the same model, etc.) ;
ii. Demonstrate a good understanding of the commercial and financial concepts used in this test; and
iii. Be clean and flexible enough to be easily manipulated by a user who would like to play around with some of the key commercial and financial assumptions.

Assumptions Sheet:

The Assumptions Sheet already available in this workbook can be used as a base to develop the financial model directly from there.

Timing & Escalation Sheet:

The financial model timeline must follow the periodicity indicated in the Assumptions Sheet, i.e. quarterly periodicity for the construction period and semi-annual periodicity for the operation period.
The financial model should include proper timing flags and escalation mechanisms to ensure maximum flexibility of the financial model structure.

Construction Sheet:

The Construction Sheet should reflect the construction costs and schedule available in the Assumptions Sheet in order to develop a full-blown quarterly capex schedule.
An EPC contract should be assumed (fixed price).

Operation Sheet:

The Operation Sheet should reflect the operational activities of the project down to EBITDA on a semi-annual basis, as well as the working capital calculations necessary to create the Current Accounts.
All the operating expenses should be escalated for inflation and the tariff should be adjusted in a coordinated way in order to ensure that inflation is a pass-trough (flat EBITDA).

Depreciation & Tax Sheet:

Both book and tax depreciation should be calculated in the Depreciation & Tax Sheet.
Once completed, major maintenance should be considered as an asset and be treated as such.

Funding Sheet:

The Funding Sheet should ultimately aim at presenting a clean Sources & Uses summary schedule (please provide a balancing check for Sources & Uses), as well as full Equity and Debt schedules.
For this purpose, the following will need to be developed in the Funding Sheet: equity drawdown schedule, debt drawdown and repayment schedule, financing fees and interest expenses calculations.
The debt and equity drawdown and repayment mechanisms should ensure flexibility to handle changes in timeline.
The equity and debt should be sized based on the debt-to-equity ratio indicated in the Assumptions Sheet.
Equity will be drawn first. The first draw should occur on the project start date as defined in the Assumptions Sheet. All subsequent draws can be assumed to occur on the first day of the period.
There is an arrangement fee to be paid at financial close. Financial close can be assumed to occur on project start date.
There is a commitment fee on the undrawn debt balance during construction.
Interest rate should be LIBOR + margin. Interests will be capitalized during construction.
The repayment profile should follow a mortgage style amortization schedule (i.e. equal debt service installments (principal + interests) over the repayment period).
The repayment profile should start post-grace period and ensure the whole debt has been repaid by the end of the debt term. Repayments should be assumed to occur on the last day of each repayment period.
DSRA and MMRA funding requirements for the first period after Commercial Operation Date should be funded just before COD as part of the costs of the last construction period.

Cash Flow Waterfall Sheet:

The Cash Flow Waterfall will summarize the project's cash inflows and outflows and reflect the order of priority of each cash flow item, i.e. each cash inflow and outflow needs to occur and be shown in the waterfall in the order that seems the most appropriate and reasonable to you.
In building the Cash Flow Waterfall, the following steps will need to be shown: EBITDA, Cash Flow Available After Operations, Cash Flow Available Afer Investment, Cash Flow Available After Financing, Net Cash Flow.
In building the Cash Flow Waterfall, the following intermediate calculations will need to be created as well: Cash Flow Available for Debt Service, Cash Flow Available for DSRA Funding, Cash Flow Available for MMRA Funding, Cash Flow Available for Dividend Distribution
The Cash Flow Waterfall Sheet should end with the Cash Account (opening balance / closing balance).
In order to be able to build the Cash Flow Waterfall properly, the following calculations and mechanisms will need to be prepared upfront:
Working capital calculations - to be included in the Operation Sheet, as mentioned above.
DSRA and MMRA mechanisms ensuring both reserve accounts are fully funded at all times and available funds are released when appropriate - these could for example be created in the Funding Sheet but please feel free to have them where and how you see fit.
Interest income on cash balances and dividend distribution calculations - these could for example be done in the Funding Sheet but please feel free to have them where and how you see fit.
Tax calculations taking into consideration the tax holiday period (appropriate tax rate to be applied) and the tax depreciation profile (appropriate taxable income to be calculated), and, if possible, deferred tax liabilities mechanisms - these could for example be done in the Depreciation & Tax Sheet but please feel free to have them where and how you see fit.

Financial Statements Sheet:

A full set of financial statements should be developed in the Financial Statements Sheet: Income Statement, Cash Flow Statement (both direct and indirect methods are fine), and Balance Sheet (please provide a balancing check for the Balance Sheet).
Bonus: an annual financial statements sheet could be added to the workbook once the financial statements following the model periodicity have been created.

Debt Ratios & Equity Return Sheet:

Create appropriate DSCRs.
Calculate the Equity IRR and NPV.
Calculate the WACC.

***Bonus:* Scenario Selection Sheet:**

Create a Scenario Selection Sheet that would allow the user of the financial model to run a set of scenarios in order to test:
- the impact of the various production output cases (High/Base/Low) and the various tariff cases (High/Base/Low); and
- different values for key commercial and financial assumptions.
Bonus: data tables could also be added to test the impact of key commercial and financial assumptions.

Assumptions

All amounts in USD million unless otherwise specified

1. Project Timing

Model Timing

Model start date	[date]	1-Jan-15
Month count system	[month]	12 mths
Day count system	[day]	365 days
Hour count system	[hour]	24 hrs
Periodicity during construction	[month]	3 mths
Periodicity during operation	[month]	6 mths

Project Timing

Project start date	[date]	1-Jan-16
Construction period	[year]	2 yrs
Operation period	[year]	20 yrs

2. Macroeconomics

Annual domestic inflation	[%]	4.50%
Annual foreign inflation	[%]	2.00%
Corporate tax rate	[%]	20.00%
Corporate tax rate during tax holiday	[%]	0.00%
Tax holiday from Commercial Operation Date	[year]	10 yrs

3. Construction

Capex

Development cost	[USDm]	20.00
Land acquisition	[USDm]	10.00
Civil works	[USDm]	180.00
Electrical and mechanical	[USDm]	20.00
Contingencies on Capex	[%]	5%

Construction schedule

Quarter	[quarter]		1	2	3	4	5	6	7	8
Development cost	[%]	100%	50%	50%	0%	0%	0%	0%	0%	0%
Land acquisition	[%]	100%	100%	0%	0%	0%	0%	0%	0%	0%
Civil works	[%]	100%	5%	5%	10%	10%	15%	15%	20%	20%
Electrical and mechanical	[%]	100%	10%	10%	15%	15%	15%	15%	10%	10%

Performance bond during construction

Performance bond size	[USDm]	10.00
Performance bond fee	[%]	1.00%

4. Operation

Production output

High Case	[units p.a.]	360,000
Base Case	[units p.a.]	330,000
Low Case	[units p.a.]	300,000

Opex

Foreign fixed cost	[USDm p.a.]	4.50
Domestic fixed cost	[USDm p.a.]	2.00
Domestic variable cost	[USD/unit]	0.75

Tariff

High Case	[USD/unit]	140.00
Base Case	[USD/unit]	120.00
Low Case	[USD/unit]	100.00
Adjusted for inflation	[text]	Yes

Working capital

Accounts receivable	[day]	30 days
Accounts payable	[day]	30 days

Performance bond during operation

Performance bond size	[USDm]	5.00
Performance bond fee	[%]	1.00%

Major maintenance

Major maintenance requirement	[USDm]	10.00
Major maintenance periodicity	[year]	10 yrs
MMRA funding requirement	[text]	MMRA to be built up to reach the major maitenance requirement amount in the period before major maintenance occurs

Depreciation

Book depreciation	[year]	20 yrs
Tax depreciation	[year]	15 yrs
Major maintenance (book and tax)	[year]	10 yrs

4. Financing

Debt		
Leverage for debt sizing	[%]	75%
Tenor	[year]	17 yrs
Grace period	[year]	2 yrs
Funding pattern	[text]	Equity drawn upfront
Repayment profile	[text]	Mortgage
Repayment periodicity	[text]	Quarterly
LIBOR	[%]	3.50%
Margin during construction	[%]	4.20%
Margin during operation	[%]	3.80%
Commitment fees	[%]	1.00%
Arrangement fees	[%]	2.00%
DSRA funding requirement	[month]	6 mths
Equity		
Equity cost	[%]	8.00%
Dividend distribution moratorium	[year]	2 yrs
Dividend distribution source	[text]	Cash
Maximum payout ratio	[%]	100%
Minimum DSCR for dividend lock-up	[ratio]	1.15x
Cash balances		
Interest rate on cash balances	[%]	1.00%