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Infrastructure Valuation

Valuing an Operating Asset for a Fund

Course Summary

Six modules, one fund, every figure computed.

Educational material. Not investment or valuation advice. Prepared with AI assistance.

About this course

This course values an operating infrastructure asset in Excel: Saltbrush Solar, a fictional 150 MW solar plant, at 31 December 2030, for the fund that owns its equity. Operating cash flow, debt service, tax and distributions; the discount rate and the equity value; cross-checks with multiples and transactions; sensitivities; and the bridge to the value one year later. It is written for analysts and associates of infrastructure and energy funds, valuation and fund finance teams, lenders and auditors. Saltbrush is the project of the Project Finance Modeling course; this course stands on its own.

Module	Lessons	What you build
1. What is being valued	1.1, 1.2, 1.3, 1.4	Project the operating cash flow
2. From EBITDA to distributions	2.1, 2.2, 2.3, 2.4, 2.5	The debt schedule, Tax and depreciation, Distributions to the shareholder
3. The discount rate	3.1, 3.2, 3.3, 3.4, 3.5	The equity value, Two discount rates and the blended rate, The return implied by a price
4. Cross-checks	4.1, 4.2, 4.3, 4.4	From equity value to multiples
5. Sensitivities and the roll-forward	5.1, 5.2, 5.3, 5.4	The sensitivity table, The valuation bridge
6. Reporting the value	6.1, 6.2, 6.3, 6.4	Build the checks sheet

How to use this summary

- Watch the lessons of a module, then read its pages here: key ideas, the numbers of the case, the mistakes to avoid.
- Build along with the step files (one start file and one solution file per build lesson), then do the module tab of the Exercise Workbook.
- Practice the module in the Quiz App or in your learner account, then take the certificate exam online: 40 questions, 60 minutes, 80% to pass.

MODULE 1

What is being valued

Why infrastructure is valued on its cash flows, equity value and enterprise value, the case, and the operating cash flow of the asset.

Key ideas

- Infrastructure has visible cash flows and a finite life: it is valued first on discounted cash flows, year by year. Multiples are a cross-check.
- Equity value is what belongs to the shareholder; enterprise value adds net debt; fair value is the price a market participant would pay at the date.
- Every valuation starts with volume, price and costs. For Saltbrush: generation with degradation, a contract price to 2042, a merchant price after, operating costs.
- Nominal cash flows go with a nominal discount rate. Each assumption has a named, dated source: yield study, contract, market adviser, budget.

The case in numbers

Saltbrush Solar	Value
Capacity / generation in 2031	150 MW / 391 GWh
PPA price 2031 / merchant price 2043 ($ per MWh)	63.80 / 58.00
Revenue / operating costs / EBITDA in 2031	$24.95m / $6.50m / $18.45m
EBITDA in 2042 / 2043	$19.59m / $12.87m
Equity value / enterprise value at 31 Dec 2030	$70.04m / $165.04m

Mistakes to avoid

- Valuing the asset with a multiple of one year's EBITDA.
- Adding cash that the model already distributes.
- Discounting nominal cash flows at a real rate.
- Assumptions without a dated source.