

Section 12B and the assessed loss

Section 12B is the reason a South African solar project pays little tax for years. How little, and for how long, depends on three mechanics: the allowance itself, the vehicle that claims it, and the rule that limits how much of an assessed loss a year can use. This post works through all three on Riverbend, row by row.

01 THE ALLOWANCE

Section 12B lets a solar plant above 1 MW deduct the cost of its qualifying assets over three years: 50%, 30%, 20%. On the R566m of Riverbend's cost that qualifies (the EPC contract and the contingency; development, owner's and grid-connection costs do not) that is R283m, R170m, R113m, far more than the plant earns in those years. The result is a tax loss. Riverbend's financial year ends in February and COD is 1 March, so each year of assessment is one operating year.

02 THE VEHICLE

An assessed loss is a tax loss carried forward to reduce taxable profit in later years. Riverbend is a standalone SPV, ring-fenced for the lender, and South Africa has no group tax relief, so the loss can't be used anywhere else: it waits for the SPV's own profit. The assessed loss peaks at R389m in year 3.

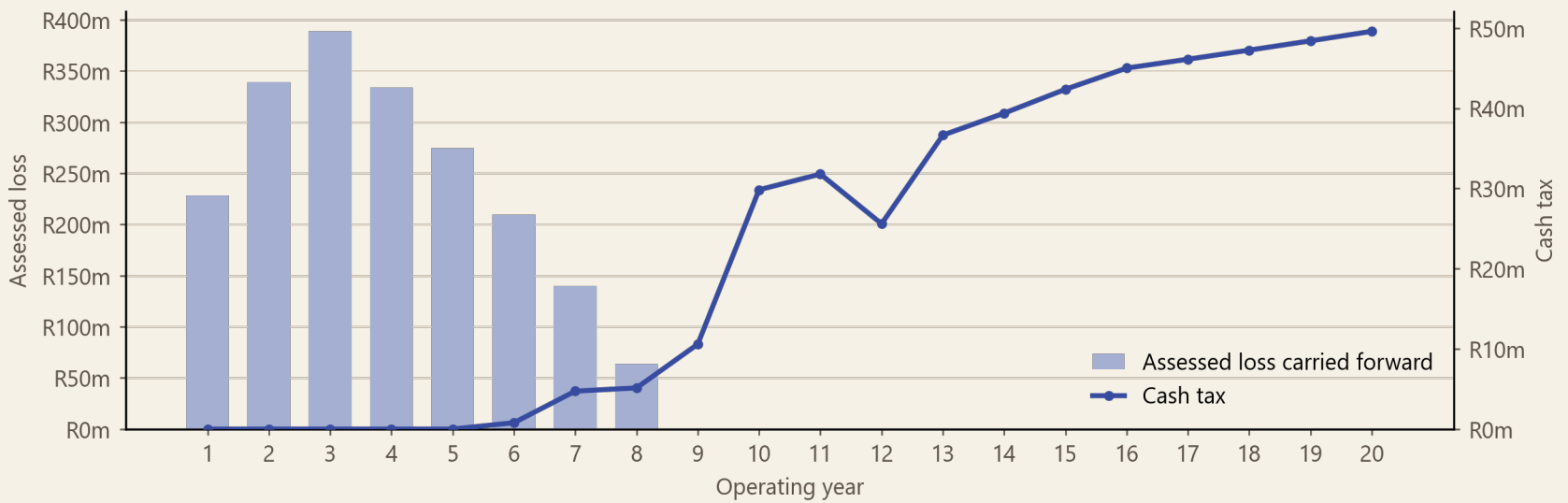
03 THE 80% RULE

For years of assessment ending from 31 March 2023, an assessed loss can reduce a year's taxable income by at most the greater of R1m and 80% of it. So once the project turns a taxable profit, a fifth of it is taxed even while a large loss remains. Riverbend pays its first cash tax in year 6, R0.8m, while still carrying R210m of loss.

$$fx \quad \text{Loss used}(t) = \min(\text{loss b/f}(t), \max(R1m, 80\% \times P(t)))$$

P(t): profit after interest and allowances. The unused loss carries forward to the next year.

EXHIBIT 7.1 The assessed loss and cash tax by year



Cash tax starts in year 6 under the 80% rule, then steps up once the loss is used, in year 9.

04 YEAR BY YEAR

Table 7.2 follows the computation line by line, so each row can be checked with a calculator:

TABLE 7.2 The tax computation (R m)

YR	EBITDA	INTEREST	S12B	PROFIT BEFORE LOSSES	LOSS USED	S11A (IDC)	TAXABLE	TAX	LOSS C/F
1	115.4	60.9	282.8	-228.3	0.0	0.0	0.0	0.0	228.3
2	118.3	59.5	169.7	-110.9	0.0	0.0	0.0	0.0	339.2
3	121.2	57.8	113.1	-49.6	0.0	0.0	0.0	0.0	388.8
4	124.3	55.6	0.0	68.6	54.9	13.7	0.0	0.0	333.9
5	127.4	53.0	0.0	74.4	59.5	14.9	0.0	0.0	274.4
6	130.5	49.9	0.0	80.7	64.6	13.2	2.9	0.8	209.8
7	133.8	46.2	0.0	87.6	70.1	0.0	17.5	4.7	139.7
8	137.1	42.1	0.0	95.1	76.0	0.0	19.0	5.1	63.7
9	140.5	37.6	0.0	102.9	63.7	0.0	39.2	10.6	0.0
10	144.0	33.5	0.0	110.5	0.0	0.0	110.5	29.8	0.0
11	147.6	29.8	0.0	117.8	0.0	0.0	117.8	31.8	0.0
12	120.1	25.3	0.0	94.8	0.0	0.0	94.8	25.6	0.0
13	155.0	19.2	0.0	135.7	0.0	0.0	135.7	36.7	0.0
14	158.8	12.9	0.0	145.9	0.0	0.0	145.9	39.4	0.0
15	162.7	5.8	0.0	156.9	0.0	0.0	156.9	42.4	0.0
16	166.7	0.0	0.0	166.7	0.0	0.0	166.7	45.0	0.0

Profit before losses = EBITDA – interest – s12B allowance. Loss used = the lower of the loss brought forward and the greater of R1m and 80% of that profit. s11A: the interest during construction (R41.8m), pre-trade expenditure deducted only from profit left after the loss is used; it waits until year 4 and is used up in year 6. Taxable = profit before losses – loss used – s11A. Tax = 27% of taxable. Loss c/f = loss brought forward + any new loss – loss used. Tax is paid half at the end of August and the rest at the end of February. EBITDA in year 12 is after the inverter overhaul. Each figure is rounded on its own, so a row can differ by 0.1.

The step comes in year 9: cash tax moves from R5.1m to R10.6m, then R29.8m, while the loan is still being repaid. Sculpted debt service has to fit around it, which is why tax sits inside the CFADS the debt is sized on.

05 TWO LOOPS

Tax is circular twice over. Interest is deductible, so tax depends on the debt; tax reduces CFADS, and CFADS sizes the debt. And as post 5 showed, a change in interest moves the year the loss runs out. The engine solves both loops each run.

06 CONCLUSION

Over the project life, Riverbend's effective tax rate is 19.9% against the 27% headline. The allowance, the vehicle and the 80% rule together set when that tax is paid, and timing is what the lender and the equity both feel. Next: what the bank does to the loan when things go wrong.

Stressing the loan the bank agreed to

Twelve cases on the financial-close debt, and the breakevens.

Riverbend Solar is an illustrative case study: a fictional deal with no real counterparty. Every figure comes from one run of the engine; every exhibit is generated, none is typed.

