**HERON CashFlow Problem Analytic**

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$Tax_{rate} := 25\%$

$Inflation := 0\%$ Inflation makes the calculation more messy. We will leave out for now.

$Discount_{Rate} := 8\%$

$size_{source} := 2$ Size of the Generator is 2

$elec_{demand} := 2$ Size of the Market Demand is 2

$$CAPEX_{source} := 10000 \cdot \left( \frac{size_{source}}{10} \right)^{0.999}$$

$$FOM_{source} := 100 \cdot \left( \frac{size_{source}}{10} \right)^{0.999}$$

$steps := 21$

$sales := elec_{demand} \cdot 31.4 \cdot steps$

$Revenue := sales$ Total Revenue from Sales of the product.

$VOM_{source} := steps \cdot size_{source}$

Without Amortization:

$N := 20$ Years

Assume Variable OM is Taxable and Everything else is Tax Exempt

$$NPV(N) := \left[ \sum_{n=1}^{N} \frac{\left(1 - Tax_{rate}\right) \cdot \left(-1 \cdot VOM_{source}\right) + \left(Revenue - FOM_{source}\right)}{\left(1 + Discount_{Rate}\right)^{n}} \right] - CAPEX_{source}$$

**Final Answer after 20 Years**

$NPV(20) = 1.0439 \times 10^{4}$

**Individual Yearly Cash Flows**.

$Revenue = 1.319 \times 10^{3}$

$FOM_{source} = 20.032$

$sales = 1.319 \times 10^{3}$

$VOM_{source} = 42$

$CAPEX_{source} = 2.003 \times 10^{3}$