

Solar Project PV Calculations

$$\text{PV of a Growing Annuity} = \text{Cash Value (1+ growth rate)} * \frac{1 - \frac{1}{(1 + \text{discount rate})^n}}{\text{discount rate}}$$

$$\text{PV of Solar Project} = 28481.87 \left(1 + 0.023 \right) * \frac{1 - \frac{1}{(1 + 0.07)^n}}{0.07}$$

$$\text{PV of Solar Project} = 29145.47 * \frac{1 - \frac{1}{(1 + 0.07)^n}}{0.07}$$

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$$\text{PV of Solar Project} = 29145.47 * \frac{0.67 - \frac{0.67}{(1 + 0.05)^n}}{0.05}$$

$$\text{PV of Solar Project} = 29145.47 * 14.40$$

$$\text{PV of Solar Project} = 419577.08 - 42000$$

$$\text{PV of Solar Project} = 377577.08$$

$$\frac{(1+\text{growth rate})^{\text{periods}}}{(1+\text{discount rate})^{\text{periods}}}$$

growth rate

$$\frac{1}{1 + 0.023} \Big)^{25} - 8000$$

$$\frac{1}{1 + 0.07} \Big)^{25}$$

0.02

$$\frac{1.78}{5.43} - 8000$$

0.05

$$\frac{0.33}{0.05} - 80000$$

42000

42000