General
ROI
Inputs
Solar Model

Balance Remaining

End of 1st year:

$$Balance = Capital\ Cost + Loan\ Interest - Amount\ Saved$$

2nd year and on:

$$Balance = Previous\ Balance + Loan\ Interest - Amount\ Saved$$

Capital Cost

$$Capital\ Cost = (Number\ of\ Panels \times Cost\ of\ Panel) + Interconnection\ Study\ Fee + Bidirectional\ Meter - Grants/Rebates$$

Per SaskPower NetMetering Documentation:

$$Interconnection\ Study\ Fee = \$315$$

$$Bidirectional\ Meter = \$498.75$$

Amount Saved

$$Amount\ Saved = (Savings\ from\ Power\ Produced) - Maintenance\ Costs$$

$$Savings\ from\ Power\ Produced = Full\ Credit\ Generation\ Amount + Overgeneration\ Amount$$

$$Full\ Credit\ Generation\ Amount = (Amount\ of\ Power\ Produced\ <=\ Consumed\ Power) \times Price\ of\ Power$$

$$Overgeneration\ Amount = (Total\ Amount\ of\ Power\ Produced\ -\ Amount\ of\ Power\ Consumed) \times Overgeneration\ Credit\ Price$$

Per SaskPower NetMetering Documentation:

$$Overgeneration\ Credit\ Price = \$0.075$$

Maintenance Costs

$$Maintenance\ Cost = (System\ KW \times \$10) + Property\ Insurance + Replacement\ Cost$$

Estimated based on third party analysis:

$$Property\ Insurance = \$250\ per\ 25kW\ in\ System$$

$$Replacement\ Cost\ (year\ 6\ and\ on) = \$400\ per\ 25kW\ in\ System$$