CASE STUDY

Beating the Grid: Sustainable, Cost-Effective Irrigation

Location: Frankfort, Free State

Rising Eskom prices are putting increasing pressure on traditional farming operations. To combat this, our customer recently installed a solar pumping system designed to drastically reduce monthly operational costs. Because these systems operate without expensive battery banks, they offer an incredibly attractive ROI while immediately freeing up monthly cash flow for the farm.

Veichi VSD 1

45kW

Driving a 37kW motor

Veichi VSD 2

45kW

Driving a 37kW motor

224 x Solar Modules

122kW

System Cost:
R630 000 Excl. VAT

Savings per month:
R25 000

Brands

VEICHI

CanadianSolar

CEDAR

www.cedarsolar.com

CASE STUDY

90kW Veichi VFD Configuration for Water Transfer Pump System

Location: Frankfort, Free State

To combat rising Eskom expenses and persistent grid outages, the Cedar Pumps team recently completed a major installation in Frankfort, Free State. Powered by a high-efficiency Veichi VSD, this water transfer pump system empowers the farmer to reliably move water across a 3km distance, securing consistent irrigation for his crops entirely independent of the grid.

Veichi VSD

90kW

Driving a 75kW motor

272 x Solar Modules

160kW

System Cost:
R900 000 Excl. VAT

Savings per month:
R45 000

Brands

VEICHI

Solar JinKO

CEDAR

www.cedarsolar.com

CASE STUDY

Solar Pump Systems
Payback Period

Convert your irrigation to solar and pump during load-shedding

VEICHI

Project: 22kw Pump to Solar Conversion

Project Size
22 kW

Project Cost
R300 000

Deposit
10%

Ave Cost kWh
R0.70

Load period
5 years

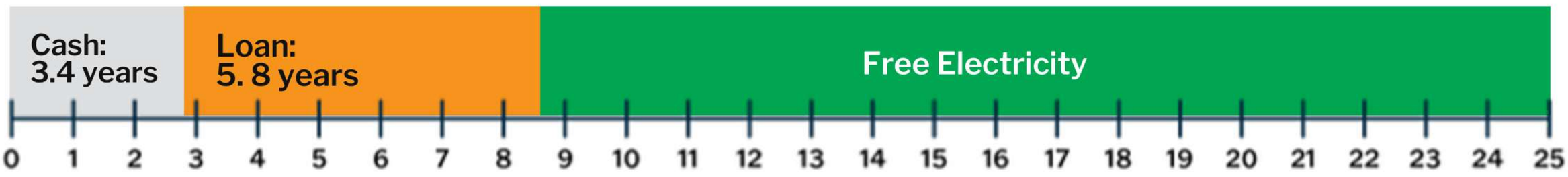
Tariff Increase p/a
9.6%

Interest rate
12%

Tax rate
27%

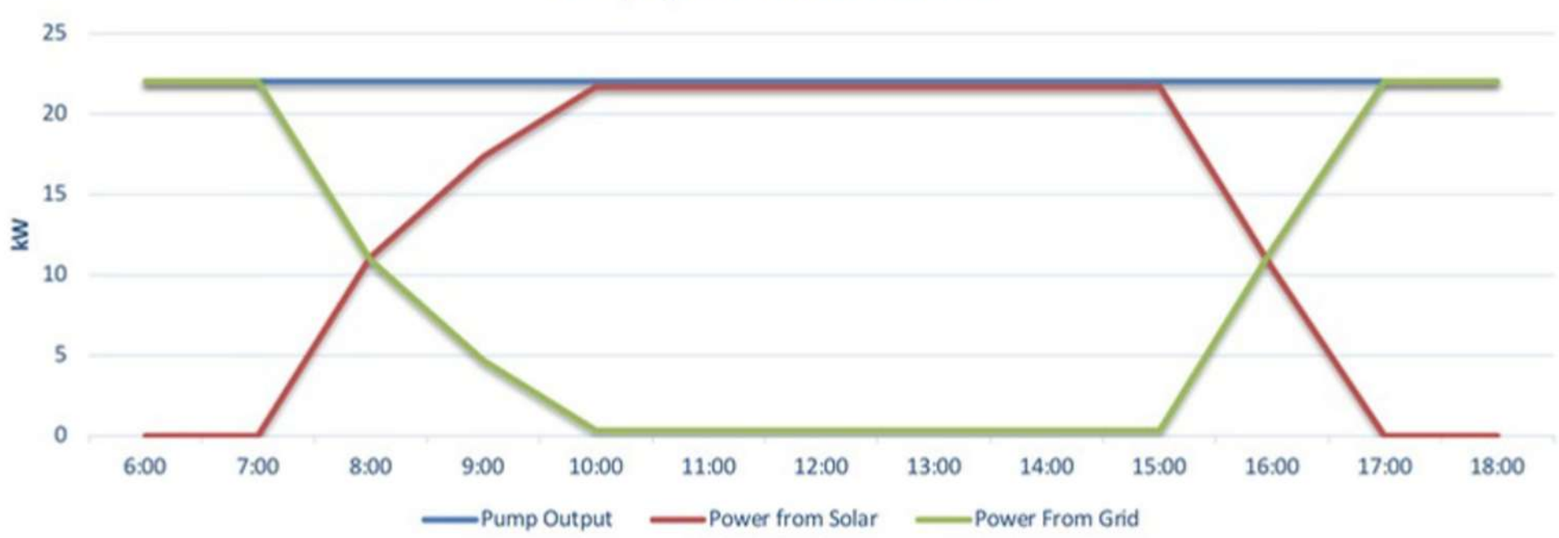
Payback period

Average Payback:
3-6 years



Notes:

- Tax benefit: Solar System can be depreciated in year 1
- No council application / approval needed
- Solar calculator available to determine your specific project payback period
- Convert any conventional 0.75kW to 400kW motors to solar



CEDAR

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CASE STUDY

Solar Conversion for Pivot Irrigation

Location: Memel, Free State

The above installation was done by our Agent NKZN Pumps in Memel, Free State. Eskom expenses and outages forced the customer to look for a more reliable way to irrigate his crops .

Veichi VSD 1

22kW

Driving a 18.5kW motor

Veichi VSD 2

4kW

Driving the pivot

70 x Solar Modules

39 kW

System Cost:
R198 000 Excl. VAT

Savings per month:
R25 000

Brands

VEICHI JA SOLAR

CEDAR

www.cedarsolar.com

CASE STUDY

Solar Conversion for Pivot Irrigation

Location: Bothaville, Free State

Our customer from Bothaville uses Two Veichi systems to pump approximately 3000m to his two 5 tower Pivots, The 120x555W panels runs the 37kw and 22kw motors (not at the same time).

The decision was made to acquire the system due to high cost of Eskom and unreliability of supply.

Veichi VSD 1

45kW

Driving a 37kW motor

Veichi VSD 2

30kW

Driving a 22kW motor

120 x Solar Modules

67 kW

System Cost: Approximately
R420 000

Savings per month:
R20 000

Brands

VEICHI JA SOLAR

CASE STUDY

Solar Conversion for Pivot Irrigation

Location: Waterpoort, Limpopo

Our customer is in a very remote area of Limpopo, he has no Eskom power available and the cost of installing an Eskom line and Transformer is not feasible. He thus decided to power his water-driven pivot using a 15kW Veichi system with 34x555W solar panels to power a 9.2kW pump.

Veichi VSD

15kW

With ouput reactor and transducer

34 x Solar Modules

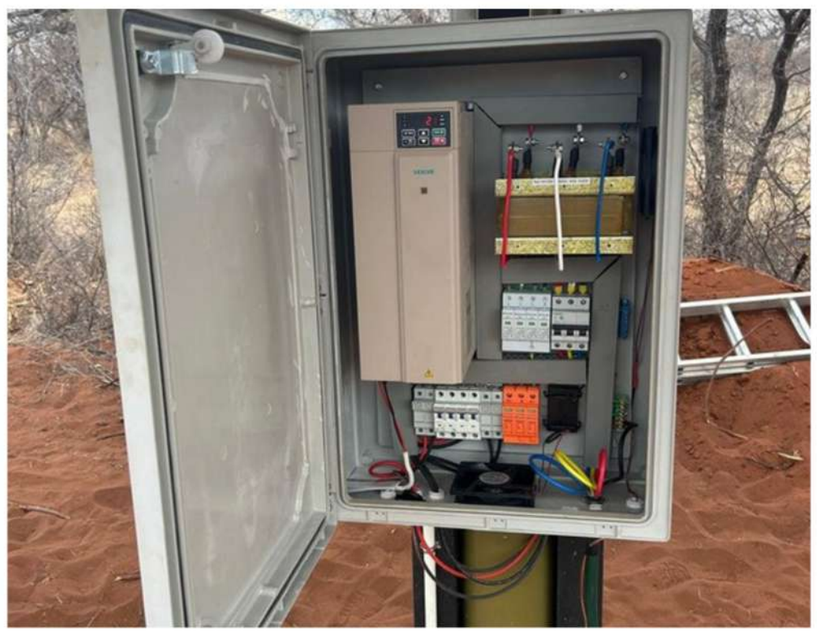
19 kW

Total dynamic head

150m

Pump yield/hour (litres)

13000 - 14000



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