# Solar for Farming Packhouses



## Powering sorting, packing and cold storage

Bidvest Renewable Solutions | Contact Wes Reddy
Email: wes@electechms.co.za | Tel: 011 452 1930 | Cell: 082 820 8692

# Three solar options for your packhouse



## Grid-tied solar

- Solar reduces daytime grid use
- Shuts down during a grid outage



## Grid-tied solar + generator

- Generator supplies power during outages
- Integrated controls let solar reduce diesel use



## Hybrid solar + batteries

- Stores surplus solar for later
- Batteries back up selected loads

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# Sizing solar for your packhouse



## 1. Log electricity demand

- Record interval readings across packing shifts, cold-room cycles and downtime.




## 2. Check the bills

- Compare logged kWh with 12 months of bills to capture harvest and off-season demand.




## 3. Size the solar system

- Match solar output to demand at each interval to maximise grid energy replaced on site.

### SSEG application

Apply to your electricity distributor for approval before grid connection.

### Roof structural assessment

Have a structural engineer check roof capacity, fixings and wind loads before installation.

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# HelioScope: forecasting solar output and returns







## Forecast solar generation

- Use local weather records, roof layout and shading to estimate monthly and annual kWh.

## Compare three options

- Grid-tied solar
- Solar + generator
- Hybrid solar + batteries

## Model 20-year returns

- Estimate annual savings, payback period and return on investment for each option.

**For the generator option, include expected outage hours and diesel savings.**

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# Three ways to pay for packhouse solar



## Outright purchase

- Pay upfront and own the system.
- Keep the electricity savings.
- Budget for maintenance.



## Financed purchase

- Buy the system with a loan.
- Repay capital and interest monthly.
- Compare repayments with expected savings.



## Power purchase agreement (PPA)

- Provider owns and maintains the system.
- Pay an agreed rate per kWh of solar power.
- Check the term and annual tariff increases.

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# Solar tax deductions and maintenance



## Solar equipment | Section 12B

- Up to 1 MW: deduct 100% of qualifying PV cost in the year first used for trade.
- Above 1 MW: deduct 50%, 30% and 20% over three tax years.



## Maintenance contracts

- Specify monitoring, cleaning and inspections.
- Agree on fault response times, reporting and spare parts.




## Running costs and ownership

- Routine business maintenance is generally deductible. Treat capital upgrades separately.
- Under a PPA, the provider owns the system.
- Budget for an annual insurance premium covering weather damage, theft and fire. Obtain a site-specific quote.

*The 125% allowance ended for systems first used after 28 February 2025. Deductions reduce taxable income.*

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# Solar, carbon credits and tax



## Track your footprint

- Meter solar used on site and grid electricity bought.
- Estimate avoided emissions: grid kWh displaced × grid emissions factor.



## How carbon credits work

- One credit represents one tonne of $CO_2e$.
- Eligible projects register, verify reductions and receive credits they can sell.



## Two different tax benefits

- Section 12B: qualifying solar costs reduce taxable income.
- Approved offsets can reduce carbon tax owed, up to the applicable limit.

***For ESG reporting, track emissions per tonne of fruit packed. Solar panels do not automatically earn carbon credits.***

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# Thank you. Any questions?



**Please contact us for more information.**

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