PSS has developed a new range of solar powered agro-processing mills for rural farmers. The advantages of solar powered mills are:

- Zero fuel costs
- Very low maintenance
- Long machinery life
- Ease of operation

This new technology breaks the dependence on fossil fuels and offers farmers and communities another important benefit; electricity.

The power produced by the solar system can also be used to provide:

- Household power
- Village lighting
- Income generating opportunities

The technology is robust, easy to use and competitively priced against traditional diesel equipment.
The PSS Power Platform is an adaptable power unit that can run multiple machines and devices. At the heart of the Platform is the Smart Solar Control Box. It comes with high amp 24V outlets that can power milling machines, clean water supply, small businesses or a minigrid. It also has low amp 12V outputs for lights, phone chargers and small appliances.

With the Power Platform you can grow your system over time by adding solar panels, batteries, other machines and devices.
RICE MILL PACKAGES

Rice Huller

Package

The Rice Huller Package is the ideal entry point for rural rice farmers that want to step-out of subsistence rice production.

It will produce 60kg of high quality brown rice per day; enough to supply a small village or to run a small business. Add another solar panel and production increases to 120kg/day. The system is fully upgradable and can accommodate up to five solar panels to produce up to 300kg/day.

The modular system design allows for the easy addition of the PSS Rice Polisher P330, without the need to buy new components – it simply plugs in. The Rice Huller Package comes standard with 2 x LED tube lights, 12V lighter socket outlet and mobile phone charging kit. Additional LED lights and cables can be added to the system.
Combination Rice Huller & Polisher Package

The Combination Rice Package sets the benchmark for small-scale sustainable rice processing in rural areas. With enough power to operate the machines for a combined 5 hours per day, the system can produce up to 240kg of brown rice or 100kg of white rice per day to a commercial grade quality.

With the option to upgrade to our 30A control unit, the system can accommodate up to eight solar panels to produce up to 500kg of brown rice or 200kg of white rice per day.

The Combination Package comes with 4 x LED tube lights, 12V lighter socket outlet and mobile phone charging kit.
Corn Huller & Flour Mill Package

The Corn Huller and Flour Mill Package can produce more than 200kg of corn flour per day from dried corn cobs.

The multi-feedstock flour mill can produce fine to course grained flour and also process a range of other grains including soy bean, sorghum, other cereals and dried root vegetables such as cassava.

The standard system can be upgraded with our 30A control unit to accommodate up to eight solar panels to produce more than 400kg of corn flour per day.

The package comes with 4 x LED tube lights, 12V lighter socket outlet and mobile phone charging kit.
RICE MACHINES

Rice Huller R250
- Brown rice production from paddy rice; 40-50kg/hr
- Triple rubber roller
- Winnows & separates husk
- 550W 24V DC motor
- Overload protection with resettable circuit breaker
- Fitted with 50A Anderson plug

Rice Polisher P330
- White rice production from brown rice; 30-35kg/hr
- Steel worm drive
- Bran separation
- 750W 24V DC motor
- Overload protection with resettable circuit breaker
- Amp meter
- Fitted with 50A Anderson plug

PROJECT SUPPORT SERVICES
Hammer Mill

- Flour production from corn, dried cassava, soy bean or other grains; 40-60kg/hr
- 750W 24V DC motor
- Overload protection with resettable circuit breaker
- Amp meter
- Fitted with 50A Anderson plug

Corn Huller

- Hulls corn kernels from dry cobs; 200kg/hr
- 550W 24V DC motor
- Overload protection with resettable circuit breaker
- Fitted with 50A Anderson plug
COMPONENTS

Solar Control Box S20/S30
- 20A or 30A solar charge controller
- 24V power outlet with Anderson plug(s)
- 12V power outlets with 2 x 2.5mm line plugs & lighter socket (5A)
- Battery volt meter; low voltage disconnect
- Fuse protected circuits; breaker on 24V circuit
- MC4 solar PV connectors
- Battery cable with Anderson plug(s) or lugs

Solar Panel PV125
- 24V 125W
- Vmp: 36V; Voc: 41.8V
- Imp: 3.5A; Ics: 3.85A
- 1480 x 670 x 35mm

Battery Box B40
- 24V 40Ah
- Deep cycle SLA batteries

Cables
- Machine extension cable (5m)
- Battery extension cable (1.5m)
- PV cables (10m) with MC4 connectors
- Double adaptors (splitters) & plug adaptors available
ACCESSORIES

Lights

- 1.5W LED tube lamp with inline switch
- Extension cables, double adaptors

Phone Charging

- Multi-plug phone charging kits
- USB adaptor

Inverters

- 150W and 300W
- Suitable for laptop computers, recharging power tools or batteries, fax machines, TV’s, DVD’s, etc
NEW DEVELOPMENTS

We have a number of exciting new machines and modules in the pipeline for our Power Platform.

We have recently finished R&D on:

- Flake mills - a multi-feedstock machine for chopping and shredding wet, soft or fibrous materials - ideal for animal feed production
- Cassava grater - for processing fresh cassava
- Coconut scraper - for processing fresh coconut

We are in the process of conducting R&D on:

- Water purification
- Water pumping
- Power distribution

All these add-ons are compatible with the Power Platform and will plug in to our Smart Solar Control Box.

If you are interested in any of these other machines or functionalities, we would be happy to discuss with you.