



**SUNDERMANN**  
WATER POWER

Affordable, Renewable, Dependable & Reliable

Sundermann Water Power is in the business of design, manufacture and sales of an internationally patented, multi blade, micro - hydro turbine system.

## IDEA & CONCEPT

The problem, prior to our invention, was that existing low head turbines developed to date are inefficient as in most cases the flow of water and the available power passed over or around the blades inefficiently.

Our idea and concept is to solve the inefficiencies of previous designs with our invention and deliver an alternative energy device for the low head hydro market.



# AFFORDABLE, RENEWABLE,

## INNOVATION



The innovative Sundermann turbine employs a patented multi blade gearbox design that through each revolution has one of the blades feather on the upstroke thus allowing power to the engaged blade. Each blade contributes a force during the cycle.

The design of the turbine housing and cowling directs the intake water to be trapped on the engaged blade which allows maximum force to be delivered to the main drive shaft.

The latest turbine is a considerable improvement on efficiency over previous designs.

Coupled to the main drive shaft is the ancillary equipment that can be attached such as power generators or water pumps.

The Sundermann turbine has been designed to allow the units to be readily installed in parallel as a 'bank of machines' to provide greater power solutions if required by the customer.

The Sundermann turbine creates power exponentially with outputs from 6 to 20 Kw from water speeds as slow as 2-3 m/sec.

## BUSINESS VIABILITY

Sundermann Water Power Limited's business viability is supported by markets initially identified in high rain fall areas such as Brazil, Argentina, Papua New Guinea and many countries within South East Asia. These markets not only have the right environment with the appropriate green energy power sources but also have a high demand for cost effective power to solve their community and light industrial needs.

Customers in these areas want affordable power solutions and in many cases also need to cost effectively shift water for irrigation and their farming needs.

The turbine can also be applied to the mining industry to provide power for workers in remote camps or to shift water for mining requirements, subsequently reducing diesel usage.

There is also significant market potential for the Sundermann turbine to be utilised in a hybrid installation along with solar and wind technologies thus providing the total alternate green energy system.

The initial marketing strategy for our brand was to develop a cost effective turbine unit that was portable offering ease of installation which we refer to as 'Plug N Power'. Developing much larger and more powerful devices for a tidal application is currently well advanced.

# DEPENDABLE & RELIABLE

## SUSTAINABILITY

The Sundermann turbine is offering a cost effective Global Solution for the micro hydro market with the ability to consistently produce power 24 hours per day.

It is affordable, renewable, dependable & reliable.

The bottom line is that the Sundermann turbine reduces the reliance on fossil fuels.



The Sundermann Water Turbine was shortlisted as a finalist in the 2011 Australian Cleantech Ideas Competition.



Sundermann Water Power Ltd  
1/61 Stewart Avenue, Hamilton South  
NSW 2303

Phone: +61 7 4197 8702

Email: [info@sundermannwaterpower.com](mailto:info@sundermannwaterpower.com)

[www.sundermannwaterpower.com](http://www.sundermannwaterpower.com)

International Phone: +61 3 8621 2880

Fax: +61 7 4125 5110

International Fax: +61 3 9614 0880