

# Solar Pumping Overview

NSW DPI Citrus roadshow 2017

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## Energy security

- Costs of fuel transport
- Costs of securing fuel deliveries
- Difficulty of supply
  
- Load shedding / power outages of grid
- Time to fix infrastructure following problems



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## Sustainability / Environment

- Solutions with short lives are expensive
- User safety
- Taking a holistic long term approach
  
- Reduce fossil fuel use
- Access to alternative funding

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## How does Solar Pumping suit the citrus industry?

- Irrigating up to 10 months of the year.
- As the sun intensifies, citrus trees require more water.
- Buying power in advance for 20 years +.
- Return of investment in some cases as little as 2 years.

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*The all new PSk2 with SmartSolution Hybrid Power*

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*Now anything is possible !*

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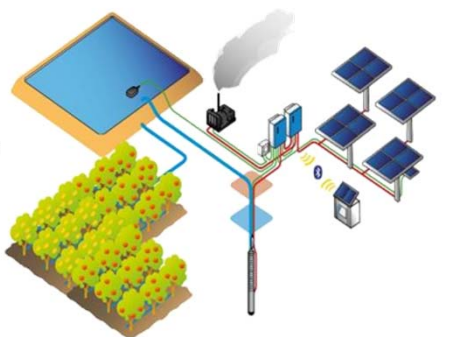
*What is Smart Hybrid Pumping ?*

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Mixing and managing different power sources to optimize cost and performance

- Plan to run solar for the majority of time and use alternative sources power for peaks, emergencies or to keep processes running
- Power blending and auto switch on / switch off means that all of the solar power is used and is "topped up" by grid or generator
- Operational costs of diesel and grid power are reduced



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## *SmartSolution - Hybrid Power*



### *Example uses*

- Solar / grid cost optimization (24 hour)
  - Daytime solar and auto switch-over to grid when tariffs are low (night grid tariff)
- Extended hours operation (industry)
  - Blending solar with grid / generator to reduce operating costs
- Solarizing existing pumps
  - Retrofitting LORENTZ material into existing systems

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# **SOLAR PUMPING IS NOW MAINSTREAM!!!**

Thank you  
Any questions ?

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