

Solar House For Agrotechnology



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Solar House For Agro Technology

Objective :

Independent Power Producing

Reducing Carbon Footprints

Integration with Smart IOT Agriculture

Students' Learning Center

Solar House For Agro Technology

Smart IOT Agriculture

- IOT Control System
- 3 different pumps
- Wall fan
- Lights
- CCTV – recording and monitoring

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Solar House

- 4 PVs
- Wall Fan
- Lights
- kWh meter
- Inverter and 4 Battery Packs
- Power Sockets
- DB Box



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Solar House For Agro Technology- For Irrigation



Solar House For Agro Technology – For Auto Pesticiding



Solar House For Agro Technology – Rain Harvesting



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Capacity

Solar Panel = 4 Unit (250 Watt)

Inverter = 5000 Watt

Batery packs = 4 Unit (4 X 12 = 48 Volt/ 150Ah)

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Solar Power Usage Index

Total Output = 1000 Watt @ 1 Kilowatt

Main irrigation Pump = 1.5 Hp

Fertilizer Mixer = 2.0 Hp

Sprinkler Pump = 1.5 Hp

Pesticide Pump = 1.5 Hp

LED Lights = 5 Unit (18 Watt)

CCTV = 4 Units

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Power Usage

- ▶ Total Pump Usage = 0.334 Kw per day
- ▶ Total LED consumptions = 0.18 Kw per day
- ▶ CCTV Systems = 4.32 Kw per day
- ▶ Total Consumption per month = 4.834Kw x 30 days
- ▶ = 145.02 Kw
- ▶ Total Energy bill saved = 145.02 x 0.218
- ▶ = **RM31.61** per month
- ▶ *Great potential to expand the usage

Solar House For Agro Technology

Sustainable Development Goals

4 QUALITY
EDUCATION



7 AFFORDABLE AND
CLEAN ENERGY



13 CLIMATE
ACTION



Solar House For Agro Technology

END