



SUSTAINABLE ENERGY SOLUTION THROUGH INNOVATION AND TECHNOLOGY

JAG COMPONENTS PTE LTD
ESTABLISHED SINCE 1994

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ENERGY AUDIT

- You cannot manage what you don't measure. Energy Audit is to facilitate the understanding of energy consumptions in all areas as to reduce wastage and improve the energy performances in the building.
- We offer different levels of Energy Audit according to your needs. And using the data gathered from the audit, we give our recommendations on how you could improve your building's energy performance.
- Benefits:
 - Understand how your building uses energy.
 - Identify areas for improvements.
 - Value proposition base on the real data collected.



WIRELESS DATA CONNECTIVITY

- The **LoRaWAN**® standard, the leading LPWAN used in more than 12 countries over a coverage of 148 networks; adopted in many of the IoT applications for Smart Cities and communities.
- Matured Ecosystem.
- Interoperability with standards.
- Flexible network models, can be public, private or hybrid.
- Low power, Low cost, High accuracy and Ease of deployment.
- Security.

24x7 DATA COLLECTION

- **SNet** Sindcon LoRaWAN Network.
- **SCloud** Sindcon LoRaWAN Cloud Server for data monitoring and retriever with mobile APP support.
- Design for Advance metering Infrastructure (AMI) and environment monitoring.
- Automatic Meter Reading (AMR) for Energy, Water and Gas meters, Prepaid and Postpaid business model with open/shut control function.
- Environmental Sensors includes temperature, humidity, ultrasonic water level sensors as in water tanks or flood detection.
- Water pressure sensors to detect water leakage.
- Cyber Sindcon Remote Transmitter Unit (RTU).





MODBUS RTU FOR ENERGY METERS



WATER METERS



GAS METERS



WATER PRESSURE METERS



RTU FOR ENERGY METERS



Application Server



LoRaWAN Server



LoRa Gateways

DATA ANALYTICS

We working in concert with 3rd party government agencies, tertiary institutions as well as private enterprises.





ENERGY SAVING PRODUCTS

SOLAR ENERGY SYSTEM

We install **Solar PV Systems**, reduce your Carbon Footprint. On-site installation to benefit via a low long-term tariff for the solar energy you consume.

Renewable Energy Certificate (REC) registration and payback for solar installation.

Financial Model: Complete buy, Hire-Purchase or **Solar Lease/ Power Purchase Agreement (PPA)**

MICROWAVE RADAR SENSOR FOR LED LIGHTING Microwave

Radar Sensor is one of the best solution for LED. Energy saving, minimum 80% of energy saving.

ENVAC ENERGY EFFICIENT COATING

Improvement in conductor conductance, reducing energy losses, minimum 10% of energy saving. Used on chillers, furnaces, wafer fabs and other electrical motor equipment.



SERVICES

ENERGY & ENVIRONMENTAL MONITORING

24x7 Reading & monitoring according to customer needs.

FINANCING SOLUTIONS SERVICES

- Shared Savings model ensures that clients can truly reap the benefits of working with us.
- Zero capital HP/Leasing system removes the need for a capital cost outlay, enhanced energy efficiency with no cost.
- REC payback for solar installation.



SOLAR PV SYSTEM

Solar energy is more eco-friendly & cost-effective. We install solar PV systems, reduce your Carbon Footprint.

We integrate the system onto your premises so you can enjoy consumption of green energy directly on-site. You will benefit via a low long-term tariff for the solar energy you consume.

Solar Photovoltaics energy generation makes it the most viable source of renewable energy. Unlike the other renewables generated from natural resources, solar can be installed on a smaller scale which makes it easy for individuals to obtain power from the sun.

Solar panels will continue to produce energy for many years as long as they are not physically damaged.

The abundance of sunshine we receive in Singapore makes solar power a highly reliable source of energy



Growing soil carbon content



Bio-energy with carbon capture and storage



Enhanced weathering and ocean alkalinity



Direct air capture and storage



Building biomass



Macroalgal cultivation for sequestration



Restoring wetlands



Direct air capture and storage



Mineralisation of injected CO₂ within geologic structures



Direct air capture and storage

RENEWABLE ENERGY CREDITS (RECs)

REC's are tradable environmental commodities that allows companies or individuals to displace their non-renewable electricity consumption with the output that came directly from a renewable source.

It seeks to encourage the production of renewable energy by allowing companies or individuals to buy the renewable energy.

Measured in Electricity Units - Megawatt hours (MWH)
Offset - Electricity use from non-renewable sources (offsets KWH)
Purpose - Validate the consumption of electricity from Renewable sources

CARBON CREDITS

Carbon credits are transferrable certificates that represent a reduction in greenhouse gas emission or an increase in carbon storage, to allow companies to compensate for their own emissions of greenhouse gases.

Its purpose is to limit emission causing activities and promote carbon storage actions.

Measured in Units of Carbon Dioxide Equivalent - CO₂
Offset - Greenhouse Gas Emissions (CO₂)
Represent the reduction of Greenhouse Gas Emission



Capital Expenditure

Capital Expenditure (CAPEX) is an upfront payment of the total cost necessary to own and run the system. It is the most straight-forward form of asset ownership that does not increase your debt level and allows your business to avoid incurring third-party expenses and interest rates. Thereby making it the fastest method for your asset to produce the highest returns and depreciation benefits as compared to alternative financing options.

CAPEX decisions can serve as indicators regarding your company's long-term goals, while streamlining your operational costs because you do not have to wait for funding and involvement from a third-party, and you can immediately benefit from the energy savings generated from solar PV and enjoy a low levelized cost of energy



Hire-purchase

To reduce the high barriers of entry to a solar system ownership, the hire-purchase option is an instalment plan where the cost of the solar system would be spread across an agreed amount of time.

The staggered expenditure allows you to afford the asset through periodic payment over a short-term spanning from 12 to 60 months. This option allows you to hold onto your reserves even if you can pay in full, giving you more liquid flexibility, while owning the renewable energy credits (REC) of the system from the day it is in operation.

The system ownership is transferred either when the down payment is made, or when the credit is fully paid off, subject to the agreement terms. Usually, this also determines maintenance responsibility of the system. If the ownership is retained with the solar company during the credit period, they might offer to bear the maintenance cost of the system.

The short-term contract nature of this finance option is recommended for properties with land leases, with the added benefit of stable energy prices, essentially hedging against energy volatility.



Solar Lease/ Power Purchase Agreement (PPA)

Solar Lease is also known as a Power Purchase Agreement (PPA). An alternative to owning the system, a PPA is a long-term binding contract with a range of 15 to 25 years that affords you the opportunity to install solar power by a solar developer at your facility without requiring an upfront payment or deposit.

Instead, you pay an agreed upon rate in which the PPA price or Lease Payment increases over time for the energy service. Unlike ownership where your electricity bill may cost nothing, a PPA monthly electricity bill is vulnerable to price hikes by the energy provider.

Since the solar developer retains ownership of the hardware and the harnessed energy throughout the tenure, they are therefore responsible for the installation, maintenance, repair and replacement of the system.

This also means that it is the solar developer that owns the REC of the technology and any tax advantages that goes along with ownership.



Thank you