



SCORCH™
TECHNOLOGY





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ASSOCIATED ORGANISATIONS AND BRANDS



CSD Supplier Number: MAAA0799268

**CENTRAL SUPPLIER
DATABASE**
FOR GOVERNMENT

BEE
procurement
recognition
135%



Enterprise Number

K2018644212



maxx | solar academy

A UJ Initiative



resolutioncircle
ecosystem for technical training solutions

GREENFIN
FINANCIAL SERVICES

sessa 
**SUSTAINABLE ENERGY SOCIETY
SOUTHERN AFRICA**



**City of
Ekurhuleni**



PROJECT PROPOSAL

Scorch Technology was founded in January 2019 and is an Energy Service Company (ESCO) specialising in the commissioning of Solar Photovoltaic Systems. It is a 100% black-female owned business with a core business focus of contributing positively to the South African economy through innovation in the renewable energy sector. We pride ourselves in progressively equipping the youth with skills that will contribute to providing clean and green energy to the nation.

The global energy demand is on the rise, resulting in the depletion of natural resources through the production from non-renewable sources. This increase has major effects on the global climate due to the increased carbon footprint. Innovative engineered solutions are crucial and it is therefore important that sustainable renewable energy be introduced not only because the global demand for energy is on the rise but also to protect the environment, and safeguard sustainable economic development in our modern day economies.

As a result of the rapidly growing demand for access to renewable, reliable, clean sources of energy in Africa, Scorch Technology intends to address this issue and use it as a platform for job creation, skills development and youth/community empowerment. Scorch aims to equip and develop some of our unemployed youth with the necessary skills to contribute in the Solar Photovoltaic (PV) industry.





MISSION STATEMENT

Scorch Technology aims to bridge the gap between non-renewable energy demand with the supply of renewable, sustainable and reliable energy.





PROJECT DESCRIPTION

- Through our accreditation and qualification from the South African Photovoltaic Industry Association (SAPVIA) allied Maxx Solar Academy, South African National Energy Development Institute (SANEDI) and PV Green Card, we will deliver the highest quality benchmarked to international standards.
- Scorch Technology utilises a transparency policy that contributes to the satisfaction for both employees and our clients. This is to contribute to the promotion of service excellence in the work environment.
- To commission custom sustainable Solar PV systems that cater for each projects particular requirements and provide clear frameworks on best practice solutions.
- To promote diversity in our teams and networks, we are not reliant on ethnicity, race, gender or sexual orientation.
- To progressively impact and empower the youth of South Africa by not only equipping them with a new set of skills but by also entrenching a culture of innovation in addition to providing employment.





OUR SERVICES

Scorch Technology

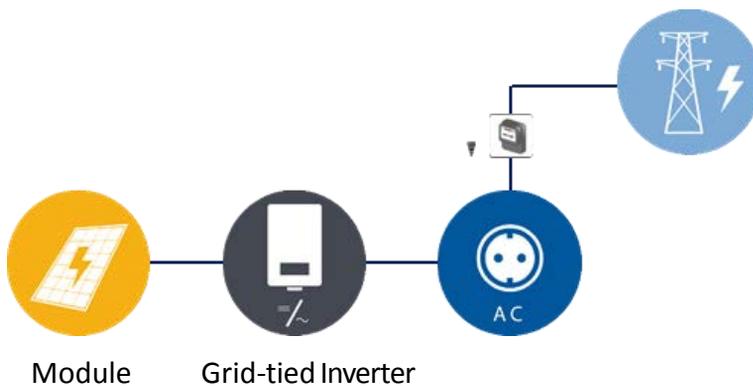
provides complete commission of Solar PV systems. Our process is comprehensive including surveying, designing, installation and maintenance of systems. These installations are done by registered, trained and accredited installers. We are accredited by Maxx Solar Academy in association with Resolution Circle and are SAPVIA (South African Photovoltaic Industry Association) approved. To ensure compliance with international industry standards, our projects are supervised by PV Green Card holders. This allows us to meet minimum internationally benchmarked quality and safety standards and adhere to regulations. Scorch Technology specialises in residential, commercial and industrial projects. Residential installations are designed and installed with a quicker turnaround time to allow for minimal disturbance for our clients and the neighbourhood at large. Commercial and industrial projects have more requirements and thus the design to installation process may take longer.



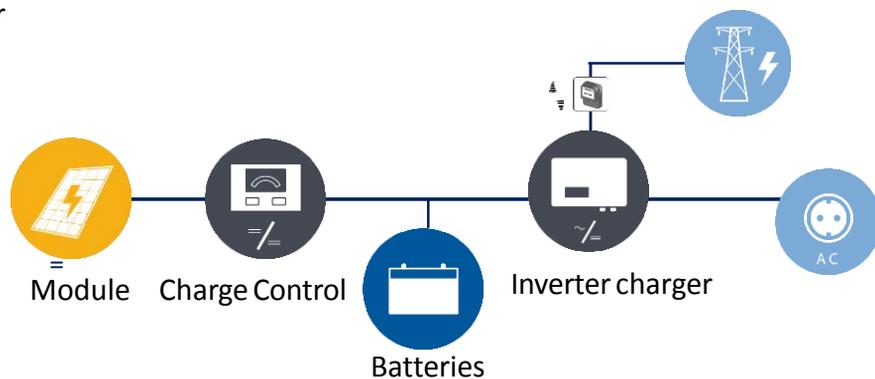
TYPES OF SYSTEMS

Grid-tied Solar System

Grid-tied solar systems are connected to the utility power grid. This system saves the consumer money with net metering, better all-round efficiencies (usage and cost per kWh) and lower equipment and installation costs.



The diagram beside shows a typical grid-tied AC base load which is designed according to the base load of the consumer and is primarily for self-consumption.



The above diagram shows a typical grid-tied backup system which is designed according to backup demands and is primarily for areas that experience frequent power cuts and self-consumption. This system would typically be more expensive due to the additional equipment and installation requirements as opposed to being solely grid-tied with no backup.



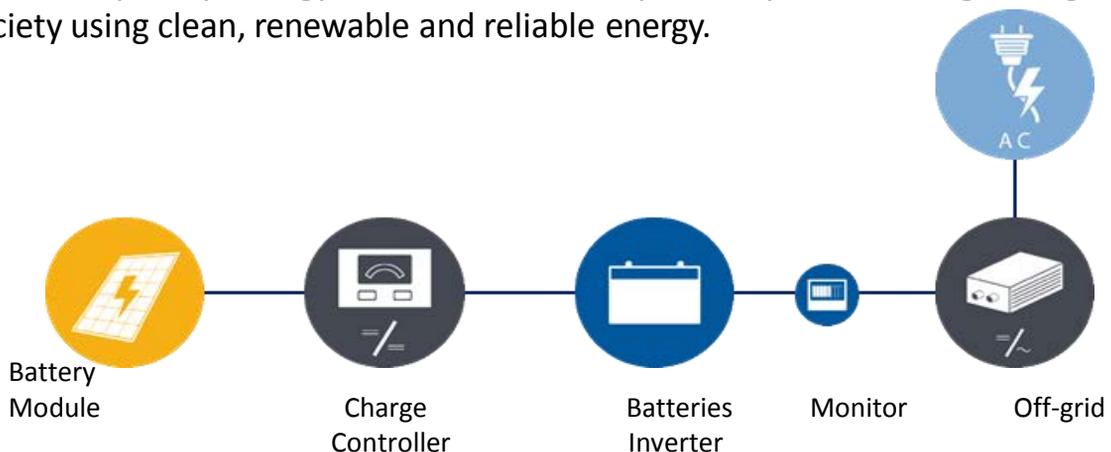
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TYPES OF SYSTEMS

Off-Grid Solar System

An off-Grid solar system produces energy in isolation and for that particular reason this system requires additional equipment that may result in higher equipment, installation and maintenance costs and may result in lower all-round efficiencies.

In order to ensure access to electricity at all times, off-grid solar PV systems not only require back-up batteries but may also require back-up generators. The advantages of this type of system are being completely independent of the utility grid and lowered on-going electricity costs. This system allows for the consumer to be completely energy self-sufficient thus positively contributing to a greener society using clean, renewable and reliable energy.



The above diagram, similar to that of a grid-tied backup system, shows an ideal off-grid Photovoltaic system connection that is designed according to energy and load.





INSTALLATION ONLY

A solution for clients who prefer to purchase system components from a vendor of their choice.

- Recommendations for reliable suppliers will be made.
- On completion of the quotation by the vendor, prior to any payment made by the client, the system specifications will be reviewed by our accredited PV Technicians.
- Once verified to be up to standard, the client can confirm and proceed to pay their vendor.
- On confirmed payment and delivery dates, the client can schedule the best suitable installation date with our team.
- Standard Installation rates:
 - **5 000 Wp and Less:** R2 / Wp excl VAT
 - **5 000 Wp to 10 000:** R1.50 / Wp excl VAT
 - **10 000 Wp and above:** R1.70 / Wp excl VAT





MAINTENANCE

1 YEAR FREE Maintenance offered for complete commission

- Module Cleaning
- Re-alignment of Modules (Aesthetics Management)
- Module wire check
- System Specification Check
- Troubleshooting (i.e.: Lower yield concerns and adherence to warranty conditions)

Module Cleaning Only

- Dust and dirt removal using professional pressurized water systems.
- 1 treatment a year is recommended.
- **Standard Cleaning Rate at R 0.75 c/ Wp excl VAT** (i.e.: R3 750.00 excl VAT for 5kWp system)





METERING

- Wireless energy monitoring systems
- Online Monitoring
 - Logged Data can be downloaded on to smart devices and viewed as graphs, and reports at multiple periods.
 - Detailed daily/weekly/monthly or yearly reports.
- Power consumption will appear on LCD display.
- Energy auditing and management services available





PROJECT MOTIVATION: NOTE FROM THE CEO

“A lot of people when asked about renewable energy too many times think it is expensive, the turnaround time is too long, or they don’t understand the sort of value/investment renewable energy may be. We aim to educate, empower and improve the livelihood of South African people through enabling the production and use of solar energy. Not only do we intend on increasing the number of people with this skill set but we aim to have a significant amount of the staff compliment being indigenous females.

The use of solar energy has benefits such as; lowered long term electricity utility costs, lowered effects of power cuts, outages and load shedding. Furthermore the installation of Solar PV systems not only increases the value of property but also increases the overall green star rating of new and previously developed constructions. For the South African people a new skills set, job creation, community development and environmental awareness. As innovation improves and the application of renewable energy spreads, we move into a cleaner, greener and more reliable source of power, the power of the future. The long term effects of using solar energy offer a positive outlook not only to the economic future of South Africa and its people but to the future of energy and power as a whole.”





PROJECT TARGETED BENEFICIARIES

- *We aim to educate and inform home owners, business owners, property developers, researchers and the government about the benefits of using solar power as an energy solution.*

The main objectives of Scorch Technology are:

- *More women inclusion, therefore 60% of our workforce will comprise of women.*
- *To create employment opportunities amongst the youth of Ekurhuleni.*
- *And ultimately we want to provide independent, reliable, renewable low cost electricity in households, commercial and industrial spaces.*

