

### www.desertsun.com.sa

Desert Sun is an experienced provider of energy efficiency and solar energy solutions in Saudi Arabia.

Our name is inspired from the nature of the Kingdom of Saudi Arabia, which is rich in renewable resources, and one of the most important and strongest of these resources is the energy of the sun. We see the future where individuals, companies, enterprises and societies living in peace and in harmony with their environment. This only happens with using efficient energy solution and renewable resources.

Desert Sun aims to provide customers with innovative solar and energy solutions which will also contribute to the well-being of the environment.

More than reducing running costs and improving environmental impact, Desert Sun also helps the customers achieve feasible and innovative energy solutions to enhance the quality of their products and services which provided to the local market of Saudi Arabia and enhances their market share, as the provision of solar energy and renewable energy solutions in Saudi Arabia also benefits industrial and commercial enterprises through our high-quality products and services.

Desert Sun provides services of development, design, supplying, installation and maintenance of solar energy and energy efficiency solutions as well as technical support through a team of qualified designers, engineers and technicians at the highest level of efficiency in this field.



# **PHOTOVOLTAIC TECHNOLOGY**

Converts Sunlight into Electricity

Energy is collected by solar photovoltaic panels that are made of semiconductor materials such as silicon. These panels convert solar energy into a direct source of electricity. It can be stored in batteries for later use or converted to AC power and directly consumed, or transferred through the electricity grid to another customers.



Then this electricity is converted into clean energy suitable for all uses at reasonable prices



When sunlight falls on silicon, energy converts into electric current



Silicon is the main content of Solar panels and is used to generate electricity from sunlight



Energy converts to heat when sunlight falls on an object

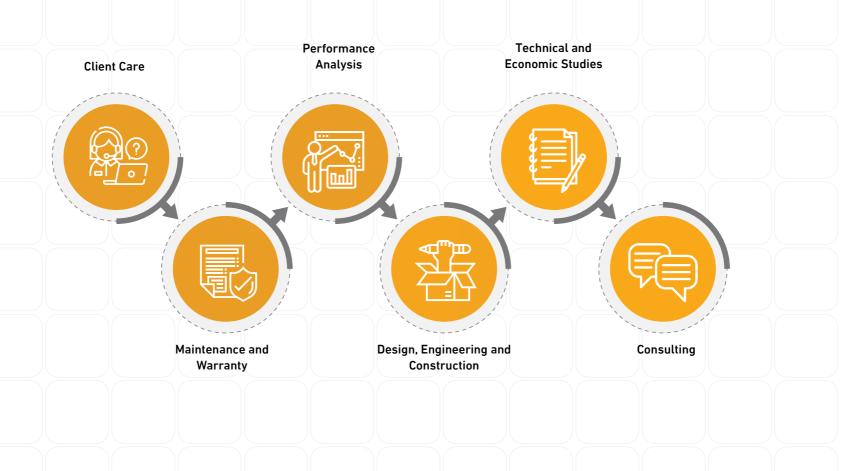
# WHY TRANSITION TO SOLAR ENERGY TODAY?

Today solar energy is the cleanest and most reliable type of renewable energies, whether your goals for converting to solar energy are economic or environmental goals, there is no doubt that this step will increase your company's competitiveness and reduce carbon emissions while improving your profit and increasing the value of the property. Among the many benefits of installing your own solar energy, we list the following as the most important advantages:



on Investment

# WHAT WE OFFER TO OUR CLIENTS



# **OUR BUSINESS PROCESS**



#### 1- Planning

- Site Evaluation and Survey
- Technical Design
- Estimating Energy Yield
- Technical and Economic Feasibility Analysis



#### 2- Design and Engineering

- Site plans
- Material Specifications
- Electrical and Structural Design
- Project Cost Estimation



#### 3- Procurement and Supply

- Solar Panels Supply
- Inverters Supply
- Mounting Structures Supply
- Protective Devices Supply
- MV Equipment Supply



#### 4- Construction

- the supply of trained workers
- construction work
- Construction management and control
- quality assurance
- Occupational safety and health policy
- Examination and testing



### 5- 0&M and Plant Management

- Monitor Plant and Performance Verification
- Analysis and Reporting
- Conducting Periodic, Preventive and Corrective Maintenance
- Remote Management Services
- Rapid Intervention and Condition Based Maintenance

# **WHY DESERT SUN**

Desert Sun is distinguished by investing its expertise in selecting the most effective solution using the most advanced and efficient technology with the best prices in the market

A distinguished engineering team certified by the Saudi Electricity Company

The Fastest to Install and Implement

Most Competitive Price in the Market

Ensure the Highest Productivity of Your Project

Installing Highest quality Products



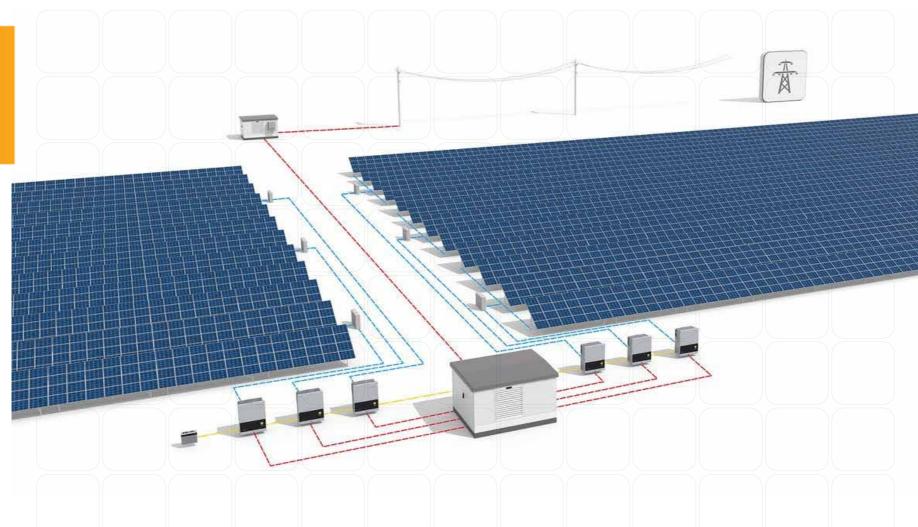
# **OUR VISION**

We at Desert Sun strive to maintain advanced technology that relies primarily on clean and renewable energy. And we believe that our planet is our legacy, and there's only one. The extensive use of fossil fuel energy has caused irreversible damage. The more we wait, the worse it will get. Saudi Arabia receives a practically unlimited amount of sunlight- why wouldn't we harness it to do our part to protect the environment? Together, let's choose a more responsible way to power our lives: Let's go solar.



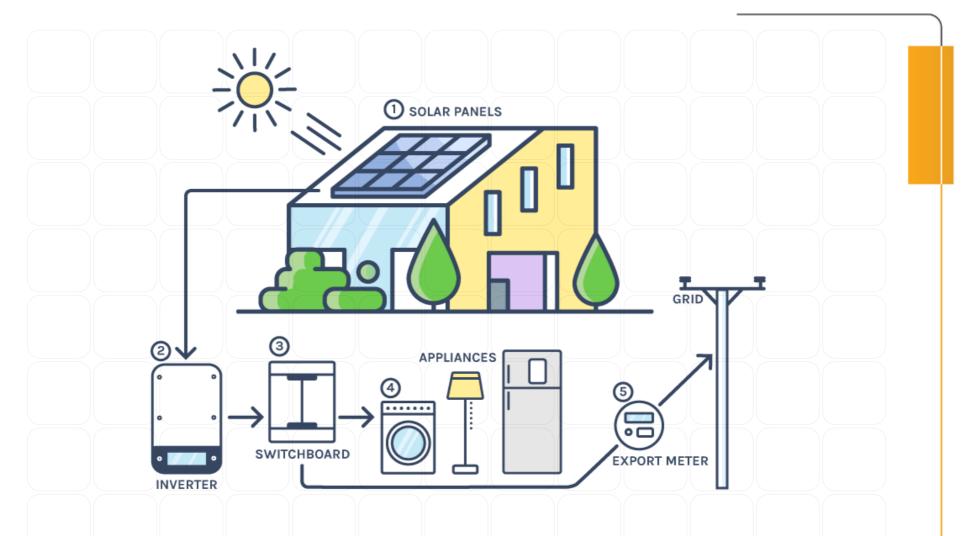
# **OUR MISSION**

Within our process, we meet with our clients to help them define their goals, evaluate their options, and make informed and confident decisions. We take care of the entire process, from design to engineering, supplying, installation, monitoring and maintenance, so that going solar is a seamless and hassle-free process.



## **SOLAR ENERGY SYSTEMS**

Desert Sun offers several types of solar energy systems with different capacities to suit all domestic, commercial and industrial needs. Our solar systems are highly efficient in all weather conditions as they are specially designed to work in all Saudi weather conditions throughout the year. We are advancing the entire solar value chain by providing industry-leading solar energy solutions to our customers. We are providing (turn key) smart solutions. These solution can be flexable to match all applications and needs.



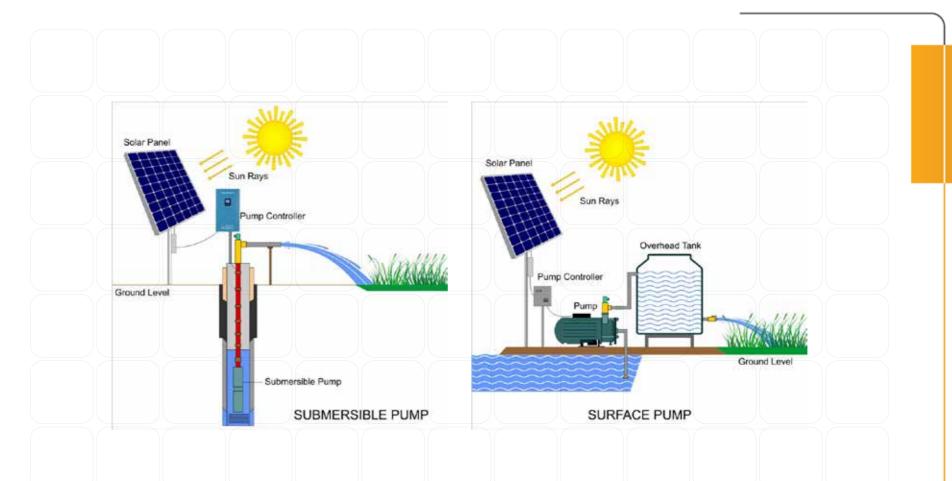
# **ON-GRID PV SYSTEM**

The simplest and most cost-effective PV design for most sites is the On-Grid system. It generates electrical energy and feed it directly to your local grid using solar PV panels during daytime. It saves your monthly electrical bill during over 25 years with minimum maintenance cost.



# **OFF-GRID PV SYSTEM**

The Off-Grid or Stand-Alone PV System incorporates large amounts of battery storage to provide power for a number of days (and nights) when sunlight is unavailable. The array of solar panels must be large enough to provide for all energy needs at the site while simultaneously recharging the batteries.



### WATER PUMPING SYSTEM

Solar water pumping involves pumping water driven by solar energy as opposed to the traditional grid electricity or diesel run water pumps. This system can be used to provide consistent water supplies for agriculture and livestock production. no batteries are required in this system, Solar panels provide electricity for driving the motor pump using an electricity booster or inverter.



# **SOLAR LIGHTING SYSTEM**

Solar Street Light works as standalone system without grid connection. It totally depends on sun as an energy source. It is mainly composed of Solar Panels, LED Light Lamp, Controller and Batteries. The solar panel generates electrical energy in the daytime and stores it in the batteries to be used at night. This entire process does without any consumption from grid. So, you can use lights in night with no electricity charge, no need of cabling, no pollution, easy installation, one-time investment.



# **HEATING SYSTEM**

Solar heating system uses solar radiation as heat energy. This is not to be confused with photovoltaics, which is the production of electricity using sunlight. This system absorbs the sunlight via the Solar collector absorber which converts it to thermal energy which transmitted after that to a heat storage tank. This system can be utilized in many activities like industry, domestic and commercial applications.

Solar Water heater is one of the heating systems offered by the company as a domestic application. It works with the latest solar heating technology; either the vacuum tubes system, or flat plate system which ensures efficiency and rapidly reaches the highest degree at a potential up to 95°C. Our solar water heaters have efficient capability to achieve all needs for commercial and industrial purposes. Offering an industry-leading performance with the minimum maintenance requirements to suit all major market segments and satisfy their various applications such as factories, hospitals, military sector, hotels, schools and many other activities.

We also design and implement large-scale industrial projects that require large amounts of hot water or large heating capacity.



## **ENERGY AUDITING**

Desert Sun conducts independent energy audits on buildings ranging from single homes to industrial and commercial facilities. Desert Sun's objective is to establish an energy consumption baseline, quantify current energy usage and identify energy savings opportunities for each building or facility.

Prior to the site visit, utility usage data is collected for a minimum of a 36-month period to allow the auditor to evaluate the building's energy consumption rate and analyze seasonal trends. During the site visit, the inspection focuses on the building envelope, lighting, HVAC, fuel, electricity and water usages and areas for improvements.

We provide the following services for existing buildings or facilities:

- Analysis of mechanical, electrical systems and hot water usage with recommended improvements.
- Independent recommendations of Energy Conservation Measures that are implemented based on reviews of building operations and current energy conservation principles.
- Projection of costs associated with each recommended Energy Conservation Measures, as well annual savings from implementation of such.
- Estimation of payback period and all costs associated with each Energy Conservation Measures.

