**Company**

The Dominators SE is a Pakistan-based company engaged in selling the solar energy equipment and related services. The services offered by the Company is provided the basic machnicizem about how to handle the products or used. It starts his services targeting to the Lahore and around its town.

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| **NAME** | **Designations** |
| Farooq Ahmad Dar | Chairman |
| Bilal Zahid | Director |
| Irfan Shakiah | Director |
| Junaid Zafar | Director |
| Rehan Ali | Director |

Chairman

Board of Directors

HR Finance Inventory Sales and Marketing

Manager Manager Manager After Sales Manager

**Background**

Pakistan’s economy has made significant progress over the last seven years. Wide-ranging structural reforms, sensible economic policies, financial discipline and continuity in policies have transformed Pakistan into a resurgent economy. The stage is now set for economic growth to accelerate with the private sector playing the pivotal role.

This fast growing economy increase the need of power. Currently, between 80 percent and 85 percent of our energy comes from fossil fuels. However, fossil fuel resources are of finite extent and are distributed unevenly under Earth's surface. When fossil fuel is turned into useful energy through ignition, it often produces environmental pollutants that are harmful to human health and greenhouse gases that threaten the global climate.

Sunlight is not only the most plentiful energy resource on earth, it is also one of the most versatile, converting readily to electricity, fuel and heat, The challenge is to raise its conversion efficiency. That requires understanding the fundamental conversion phenomena.

Country like Pakistan where the sun is shining 360 days of year. The technology required to harness the power of the sun is available now. Solar power alone could provide all of the energy Pakistan consume – there is no shortage of solar energy.

So the opportunity is to increase solar energy conversion as an alternative to fossil fuels.

**Research indicator**

Research tells us that every square meter of the earth's surface, when exposed to direct sunlight, receive about 1000 watt (1 kilowatt) of energy from the sun's light. Depending on the angle of sunlight, which changes with the time of day, and the geographical location, the power of the sun's light will be somewhat more or less than 1 kilowatt-hour per hour for every square meter of the earth's surface exposed to the sun.

Every square meter area exposed to direct sunlight will receive about 1 kilowatt-hour per hour of solar energy. However, scientists estimate that sunlight will provide useful solar energy for only about 6 to 9 hours per day in Pakistan, because during the early hours and late hours of the day the angle of the sun's light is too low.

**photovoltaic cells:**

It would be great if 100% of the sunshine became electricity, but solar energy and electricity are not the same. Technology accomplishes the conversion of solar energy to electricity. Several different technologies are used; perhaps the one that most people have heard of is the solar panel, made from photovoltaic cells called PV.

The efficiency of commercially available solar panels (PV) is about 15%. This means that when a solar panel converts the sun's light to electricity, only about 15 percent of the energy in the sunlight becomes electricity.

**CSP technology**

Concentrated Solar Power (CSP), takes a different approach to harnessing the power of the sun. Unlike photovoltaic cells, CSP uses mirrors to concentrate the sunlight on a focal point, which magnifies the suns heat. Similar to holding a magnifying glass in the sun, focusing the light onto a piece of paper until the paper catches on fire.

CSP technology has more than one form. Troughs, dishes and towers are the different forms available today. A CSP dish or tower looks like a modern glass sculpture and contributes aesthetically to the landscape. CSP systems can achieve **30 percent efficiency**, or about twice the efficiency of standard photovoltaic cells (2 x .75 = 1.5 kilowatt-hours per square yard per day).

Large Concentrating Solar Power plants create the thermal energy equivalent to conventional fossil fuel power plants. After the sun sets, CSP plants generate electricity from [cost-effective thermal storage](http://www.energylan.sandia.gov/sunlab/thermalstor.htm), providing 24-hour service to the power grid.

Consider the solar energy potential of one acre of land. There are 43,560 square feet in an acre. Divide the number of square feet in one acre by 9 (the number of square feet in one square yard) and you find that there are 4,840 square yards in one acre of land. A CSP dish, tower, or trough receiving an acre of sunshine would yield about (1.5 kilowatt-hours per square yard times 4,840 square yards per acre) 7,260 kilowatt-hours of electricity per day, at 30% efficiency.