Sustainable development in university

Technology, Development

Sustainable development: Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. World Commission onEnvironmentand Development (1987), p 43. Also called the Borderland Report. When human beings strive for enhanced life conditions without diminishing the meaning of life itself - namely our children's future - we call this development sustainable. Muffler (2005) Need for sustainable development: suggestion for COMBATS way: The sun provides us a tremendous resource for generating clean and sustainable electricity without toxicpollutionorglobal warmingemissions. If we generate electricity for COMBATS Way through solar energy it will benefit both the institute and environment. Solar energy . Solar energy is a renewable free source of energy that is sustainable and totally inexhaustible, unlike fossil fuels which are finite.

It is also a non-polluting source of energy and it does not emit any greenhouse gases when producing electricity. The solar electricity that is produced can supply your entire or partial energy consumption Solar power is clean green electricity that is either created from unlighted or from heat from the sun. Having solar electricity in your home usually means setting up a solar photovoltaic system on your roof. Solar power is produced by collecting sunlight and converting it into electricity.

This is done by using solar panels, which are large flat panels made up of many individual solar cells. Solar panel: A solar panel (also solar module, photovoltaic module or photovoltaic panel) is a packaged, connected assembly of photovoltaic. The solar panel can be used as a component of a larger photovoltaic system to generate and supply electricity in immemorial

and residential applications. Each panel is rated by its DC output power under standard test conditions, and typically ranges from 100 to 450 watts.

The efficiency of a panel determines the area of a panel given the same rated output - an 8% efficient 230 watt panel will have twice the area of a 16% efficient 230 watt panel. Because a single solar panel can produce only a limited amount of power, most installations contain multiple panels. A photovoltaic system typically includes an array of solar panels, an inverter, and sometimes a battery and or solar racked and interconnection wiring. Sustainable development is often thought to have three components: environment, society, and economy.

The well-being of these three areas is intertwined, not separate. McKeon, R. (2002). The SEEDS Toolkit 2. 0. Web- published document. Advantages of solar energy: Renewable energy: solar energy Is a renewable Tree source AT energy Tanat Is sustainable and totally inexhaustible, unlike fossil fuels which are finite. It is also a non-polluting source of energy and it does not emit any greenhouse gases when reducing electricity. According to the Law of Conservation of Energy: Energy can only change from one form to another. Energy can neither be created nor be destroyed.

Materials Are Readily Available and Renewable One of the major advantages of solar energy is the fact that the raw materials that are usually used to generate power not only unlimited but they are also renewable. This is because sunlight is free and there is a guarantee that the sun will always shine meaning that it is impossible to run out of the sunlight which is the source of this power. This production of this form of power does not require

one to buy raw materials constantly as other forms of energy do. It is a onetime installment for long period.

Does Not Emit Pollutants The other merit of using this form of power is that unlike other sources of power, it is known to have little or no emission of pollutants. The energy panels that are used to trap and produce power are made in such a way that it does not pollute the environment. The only environmental costs that are normally incurred are the manufacturing and the construction costs. Not Noisy While in Use Power panels are made in such a way that they do not produce any noise as there are no movable parts in them.

This makes them ideal to use in an institution as they do not cause noise pollution that can be very irritating at times. Other forms energy producers need blades and gearboxes that are prone to producing too much noise while in use. It Is Economical Advantages of solar energy are inclusive of the fact that this form of power is economical. Although the initial costs that come as a result of buying the panels and installing them may be high, after using the panels for a while you will begin to legalize that you are saving so much as you are not paying electricity bills anymore.

The utility bills of COMBATS is very high by installing the solar panels it can save the amount of these bills and can invest on other important projects and activities that requiremoney. Most panels come with a 20-25 years guarantee: this means that if the panel fails within this period of use, it can be replaced by the manufacturers. Another advantage is that if campus

produce electricity more than its requirement, the electricity can be sold and campus can make money also in this way.