

7.2 Best Practice I:

1. Title of the Practice: Use of renewable energy

2. Goal: To take initiative in creating awareness of importance of energy conservation and its role in sustainable national development among students, staff, all stake holders of the college and community by setting as the role model.

3.The Context: The most important reason behind the necessity for energy conservation is protecting the environment. Human race has excessively extracted natural resources for its own convenience without thinking of its aftermath. Extensive use of vehicles, cutting of trees, irrational use of water, paper and electricity from conventional source add up to the threat of clean environment. Conserving energy has yet another important reason. Use of alternative energy source for generation of electricity would give the prime benefits like low electricity bills and reduced maintenance cost of electric and electronic equipment. We, as educationists have come forward to take initiative to take measures to conserve and preserve our environment and motivate others.

4.The Practice: The institution has installed 'Solar Wind Hybrid Power Generation Plant' in the year 2016 and it generates 13kW energy. The project was inaugurated by the Guardian Minister of Pune district. The project was well appreciated by S.P. Pune University and was visited by various educational institutes. In order to meet the growing demand of energy because of extended infrastructure, this plant was upgraded in 2017 with partly financial assistance by S.P. Pune University. It now generates additional 15 kW energy. Thus total **28 KW** is provided by the solar-wind hybrid plant. It is stored in batteries and is being utilized for tube lights and fans in classrooms, corridors, audio-visual hall, Principal's cabin and administrative office. It has considerably reduced the need of conventional electricity supply.

5.Evidence of success: Because of the success of the solar-wind hybrid power plant project, S.P. Pune University encouraged other affiliated colleges to install such plants. A separate financial grant provision has been made by the university for the same. Many colleges have now opted for the use of such alternative energy sources. The use of solar and wind hybrid energy has reduced the electricity bill by about 13-30%. As a result, in 2017, the institution has been awarded State Level First Prize for conservation of energy amongst educational institutes in Maharashtra by Maharashtra Energy Development Agency [MEDA] of Government of Maharashtra.

6. Problems Encountered and Resources required: Replacement of battery every three to five years consumes more cost. During rainy season, less solar energy is produced. As the project is located in urban area having multi-storeyed buildings all over, it affects the wind velocity thereby resulting in low production of energy from wind turbine. There is a growing need of energy every year as new courses, instruments and infrastructure add up. These two plants are not sufficient enough to meet the requirement. Financial grant is necessary for making it more efficient. Also awareness and efforts are required by each and every one for optimum use of energy and thus contributing towards conservation of environment.