

## Potential of energy conservation of daylight linked lighting system in India

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**Abstract :** Demand of energy is increasing faster than the generation. It leads shortage of power in all sectors of society. At peak hour this shortage is higher. Unless we utilize energy efficient technology, it is very difficult to minimize the shortage of energy. So energy efficiency program and energy conservation has an important role. Energy efficient technologies are cost intensive hence it is always not possible to implement in country like India. In the recent study, an educational building with operating hours from 10:00 a.m. to 05:00 p.m. has been selected to quantify the possibility of lighting energy conservation. As the operating hour is in daytime, integration of daylight with artificial lighting system will definitely reduce the lighting energy consumption. Moreover the initial investment has been given priority and hence the existing lighting installation was unaltered. An automatic controller has been designed which will be operated as a function of daylight through windows and the lighting system of the room will function accordingly. The result of the study of integrating daylight gave quite satisfactory for visual comfort as well as energy conservation.

**Keywords :** Lighting energy, energy efficiency, daylight, illumination, energy conservation

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