

Improved Energy Efficiency Technologies and Its Applications

N. Kiranmai¹, N. Aruna Kumari², Srinivasa Rao Kadari³

Government Degree College, Badangpet, Ranga Reddy, India¹

BJR Government Degree College, Narayanaguda, Vittalwadi, Hyderabad, India^{2,3}

Abstract: *These sectors are substantial energy consumers, making their transition towards greener practices essential for reducing environmental impact and operational costs. Fortunately, a range of innovative solutions are available to pave the way for a more energy-efficient tomorrow. Successful energy efficiency programs often install and operate a range of energy-efficient technologies. The technologies can benefit multiple sectors by reducing energy demand and improving energy reliability. Energy efficiency is the use of less energy to perform the same task or produce the same result. Energy-efficient homes and buildings use less energy to heat, cool, and run appliances and electronics, and energy-efficient manufacturing facilities use less energy to produce goods. Energy efficiency is one of the easiest and most cost-effective ways to combat climate change, reduce energy costs for consumers, and improve the competitiveness of . businesses. Energy efficiency is also a vital component in achieving net-zero emissions of carbon dioxide through decarbonization.*

Keywords: Building Envelope, Lighting, LEDs. CFLs. Appliances