

Problem : A small business owner has a problem related to the energy efficiency in his office. The main problem faced by the owner is high electricity bill of a particular month

► **A) Executive Summary :**

As an entrepreneur in a small business, having regard for the bottom line is always important, and high energy costs are a sure way to upset this. On the other hand, inefficient usage patterns and outdated energy systems may result in very high electricity bills at the end of the month, thus killing the business's profitability and environmental sustainability.

Some of the ways in which high energy costs can affect small business include:

Reduced Profitability: High energy costs can impact the potential for a business to be profitable by drastic margins, hence making it hard when it comes to competing in the current market.

Increased Operating Costs Energy costs form a bulk part of a business' operating costs. High prices make it pretty hard to control expenditures related to salaries, rent, marketing, etc.

Lower Competitiveness: Firms that are characterized by high energy costs could not compete at a level field with others in the same business, more so those that have implemented efficient use of energy.

Negative Cash Flow Impact: High energy costs could put a huge dent in the cash flows of a business, hence making it quite hard to invest in growth initiatives or react to changing markets.

► **B) Project Description :**

The purpose of the project is to minimize energy use and costs at the small office, improving the overall business efficiency and sustainability. This project involves identification and implementation of only those energy-efficient solutions that will help reduce environmental impact and decrease energy expenses for the office.

The solution at the moment is inefficient, obsolete lighting and HVAC systems. These are not only wasting energy but also furthering large electricity bills—both a definite drain on the business. The current solution is no longer workable, and a change has to be made to assure long-term viability of the office.

► **C) Project Scope :**

The energy consumption will be reduced by 20% within the next 6 months.

The energy costs will be reduced by 15% within the next 6 months.

The overall energy efficiency of the office will be improved.

Tasks:

An energy audit shall be conducted in order to show the areas for improvement.

Identification and procurement of energy-efficient lighting and HVAC systems.

Installation and testing of new systems.

Monitoring and evaluation of energy consumption and its related costs.

Deliverables:

A comprehensive report on the energy audit

A detailed implementation plan for energy-efficient solutions.

Setting up and testing of new systems.