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Title of Project: “Marketing of Alternative Energy: A need for application of 4 p’s for effectiveness”

Subject: Marketing

Minor Research Project submitted to University Grant Commission, New Delhi

Project Period: Two Years

Background:

Origin of the research problem:

Energy in the different forms is in existence in this planet earth and prominent amongst them namely (crude oil) fuel and nuclear energy has been exploited over the above the permitted limits. Mankind has partially been using these major energy resource to their maximum advantage without realizing the long term repercussion and side effects on very survival of humanity itself. The rising depletion level of these energy resources have most of the economics and governance to think critically about availability, to sustain the major and essential.

The time has come to explore the possibility alternative (renewable energy) in the different forms to exploit it in its best ways, at micro and macro level of its application and at the same time, also assure availability of these energy forms it future also.

Interdisciplinary relevance:

This study aims to correlate two disciplines i.e namely environmental science and marketing from commerce. The concept of renewable

energy broadly studied under science and its application as green energy is looked into future aspects for its development. The lack of awareness and non availability of resources as product as per end user, is applied for study by marketing under application of 4 p's is- product, price, physical distribution and promotion in market.

Significance of the study

The study attempts to create an awareness about the alternative energy in different forms and its possible marketing to end users i.e at micro and macro level, to reduce dependency on non renewal energy (i.e oil, and/nuclear power etc.)

The study also attempts to examine the previous research reports at various levels, interaction with energy experts, reference to secondary data published books and directives of Government agencies.

The study also seeks to highlight the possible ways to guide end users with application of 4p's of marketing.

Objectives

- a) To study the current status of alternative energy and its different forms in relation to Indian economy (reference to be made to international development).
- b) To locate the existence and potential sites/areas in product form, which can provide alternative energy (renewable energy) at micro and macro level applications and its marketing to users.
- c) To study the commercial applications of alternative energy resource in reference to 4p's of marketing i.e the following.
 - i) development of alternative energy as product.
 - ii) Pricing models to be adopted.
 - iii) Distribution channel to be applied.
 - iv) Promotion amongst the users.

Findings of Research

Application of 4PS

In order to have an effective awareness and longer per capita consumption, application of 4p's were found to be essential. The 4PS are product creation, pricing, physical distribution and promotion of the product amongst the potential users. My finding from the Study were following:

- 1) Product creation at individual user level and individual level is now a necessity to augment the economic growth. The areas of product application were:
 - (a) Wind mills
 - (b) Bio-gas plants
 - (c) Solar poles panel
 - (d) Tidal energy generator
 - (e) Small dam dynamo based generators
 - (f) Rechargeable Lanterns etc.

My reference was restricted to Pune and neighbouring districts of Maharashtra. The above areas and its product application can work wonders for small energy users at residential and commercial areas.

- 2) Pricing models: Since the areas are coming under Rural and tribal areas, pricing needs to be low initially to motivate the user to switch to alternative energy sources. This could be achieved through promotional pricing or cost plus pricing with subsidy component.
- 3) Physical distributions: It was observed that distribution in an hurdle became of two reasons, one was lack of transport network and second was the lack of warehousing facilities. A

motivational base can be created with higher margins to distributors in rural areas.

- 4) Promotion: The idea of alternative energy products and its marketing needs a new generation promotional planning and strategies. The promotion will have two impacts, one is high awareness among the potential users and two, acceptance of products for use. The promotional segment can be divided into three parts:
 - a) Advertising (through various media)
 - b) Sales promotion
 - c) Publicity

To create end sales and concept sales, advertising will help. It was found the awareness was low among the end users. Sales promotion will help in creating users for the product. And, publicity will lead to mass awareness among the people.

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