



A Study of the Perception of University Students' Towards Energy Conservation in Haryana (With Special Reference to District Rohtak)

KEYWORDS

Attitude, Energy Conservation, University Students, Electricity

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ABSTRACT *The paper is an attempt to have an insight into the attitude of university student towards the problems related to electricity generation, supply, and conservation in the State of Haryana. To achieve the objectives of the study, a sample of 50 students comprising of 24 rural and 26 urban was selected from the campus of Maharishi Dayanand University, Rohtak and the data were collected with the help of a questionnaire. The researchers found that the electricity generation and its supply is not sufficient in the State as per the responses of the respondents. The majority of the respondents also highlighted the wastage/theft of electricity as a main cause of gap between demand and supply and further, it was suggested by the respondents that the gap can be filled by energy conservation and, by propagating it more, through the masses. The study also found that people use more electricity at work places than at homes, which needs to be controlled to overcome the problem of short supply of electricity in the State.*

Introduction

Energy is the prime mover of economic growth and is vital to sustaining a modern economy and society, and one of the basic requisites for economic development. Every section of society, whether agriculture, industry, transport, businesses or household consumes energy. The development of any state depends to a large extent on availability and usage of electricity. In India, the need for energy is growing at a stupendous rate, annual electricity generation and consumption in India increased about 64 per cent in the past decade, and its projected rate of increase (estimated as 8-10 per cent annually, through the year 2020) for electricity consumption is one of the highest in the world. Due to rapid economic expansion, India has one of the world's fastest growing energy markets and is expected to be the second-largest contributor to the increase in global energy demand by 2035. India currently suffers from a major shortage of energy, especially in electricity generation capacity; even though it is the world's fourth largest energy consumer after United States, China and Russia. India's Central Electricity Authority reported power deficits of more than 8% in recent months. Conservation of India has the largest wind industry, with an installed capacity of 11800 MW ("State-wise Installations Statistics". Wind Power India, 2010). While efforts are being made to improve availability of various energy sources, there is still a gap between demand and supply of energy. More than 700 million people in India have been left without power in the world's worst blackout of recent times that lead to fears that protests and even riots could follow if the country's electricity supply continues to fail to meet growing demand. Twenty of India's 28 states were hit by power cuts, along with the capital, New Delhi, when three of the country's five electricity grids failed at lunchtime. Greenpeace said the blackout was "an eye opener that the present energy infrastructure in India needs to be diversified, both at the generation and the distribution level".

Energy conservation emerged as one of the major issues in recent years. Conservation and efficient utilization of energy resources play a vital role in narrowing the gap between demand and supply of energy. Energy conservation is the quickest, cheapest and most practical method of overcoming energy shortage. The Government of India enacted the Energy Conservation Act, 2001 to provide a legal framework to enable the economy to be energy efficient that came into force from 1.3.2002. Electricity is more essential due to the concern for fast depletion of non-renewable sources of energy in the country. Conservation of electricity is necessary to save the environment and the Earth from warming. The present study throws light on this issue.

Objectives of the Study

The study was attempted to realize the following objectives:

1. To study the attitude of the respondents towards electricity supply, wastage and shortage, etc. in the State of Haryana.
2. To study the attitude of the respondents towards the attainment of self-sufficiency through energy conservation, and creating awareness among the people against wastage, theft, misuse, etc. of the power in the State.
3. To make the viable suggestions on the basis of the findings.

Research Methodology

In the study the following research methodology is used:

Research design

The study was descriptive-cum-exploratory in nature and based on survey questionnaire.

Sample design

Sample was selected from students of M.D. University Rohtak, who were categorized according to gender and residential status. The required data were collected from 50 (24 rural and 26 urban). In the present study convenient sampling technique was followed, while getting questionnaires filled from different University Students.

Population

Under Graduates, Post Graduate and M.Phil., Ph.D. Scholars of M.D. University Rohtak constitute the population of this survey study.

Sample unit

The students of different departments of M.D. University, Rohtak were taken as the sample unit.

Data collection

The study entirely based on primary data. The primary data was collected through structured questionnaires duly filled by University students.

Statistical techniques

Crosstab technique of SPSS was used to analyze available data and to reach at the conclusion of the study. Data was also analyzed, interpreted and evaluated with required statistical tools like tabulation, graphic presentation, and percentage.

Results and Discussions

An analysis of total 50 respondents (24 rural and 26 urban) was made with the help of crosstab technique of SPSS under the study. The analytical Table 1 showed the association between residential status (Rural and Urban) of respondents and their attitudes towards energy conservation. Out of total 50 respondents, 24 belong to rural area and remaining 26 to urban area. It is evident from the table that, a significant number of respondents, 18 (75 per cent) rural and 21 (80.77 per cent) urban agreed that generation of electricity is not sufficient in the state, only 6 (25 per cent) rural and 5 (19.23

per cent) urban respondents found the generation of electricity adequate in the state. Mainstream of respondents, 18 (75 per cent) rural and 16 (61.54 per cent) urban believed that they are not getting the sufficient supply of electricity to meet their needs out, and 20 (83.33 per cent) rural and 17 (65.38 per cent) urban believed that the Wastage/Theft is more responsible for shortage in the supply of electricity than production. Majority of respondents (83.33 per cent rural and 84.62 per cent urban) agreed that self-sufficiency can be attained by energy conservation but 16.67 per cent rural and 15.39 per cent urban opined against this.

Table 1
Students' Responses according to Residential Status

Resident	Sufficient Electricity Generation in State		Sufficient Supply to Meet The Needs		Shortage is Due to Wastage/Theft than Production		Self Sufficiency Attained By Energy Conservation		Total
	Yes	No	Yes	No	Yes	No	Yes	No	
Rural	6 (25)	18 (75)	6 (25)	18 (75)	20 (83.33)	4 (16.67)	20 (83.33)	4 (16.7)	24 (100)
Urban	5 (19.23)	21 (80.77)	10 (38.46)	16 (61.54)	17 (65.38)	9 (34.62)	22 (84.62)	4 (15.39)	26 (100)
Total	11 (22)	39 (78)	16 (32)	34 (68)	37 (74)	13 (26)	42 (84)	8 (16)	50 (100)

Note: (i) Source: Primary data collected.
(ii) The figures in brackets show the percentages.

The analytical Table 2 showed the association between residential status (Rural and Urban) of respondents and their attitudes towards energy conservation. Out of total respondents, 100 per cent rural and urban each, believed that there is a strong need of making big hype to make people aware about energy conservation. A very significant number of respondents (22 rural, and 25 urban) said that more electricity is wasted in public office than homes; and 12 rural and 18 urban respondents agreed that they do not adopt double standards in using electricity at home or at university. 12 rural and 8 urban respondents confessed that they adopt double standards in using electricity in home and university. The results can be assessed through figure 1.

Table 2
Students' Responses according to Residential Status

Resident	Need of serious efforts to Make People Aware		More Electricity is Wasted in Public Office than at Homes		Adopt Double Standard in Using Electricity at Home And at University		Total
	Yes	No	Yes	No	Yes	No	
Rural	24 (100)	0	22 (91.67)	2 (8.33)	12 (50)	12 (50)	24 (100)
Urban	24 (92.30)	2 (7.70)	25 (96.15)	1 (3.85)	18 (69.23)	8 (30.77)	26 (100)
Total	48 (96)	2 (4)	47 (94)	3 (6)	30 (60)	20 (40)	50 (100)

Note: (i) Source: Primary data collected.
(ii) The figures in brackets show the percentages.

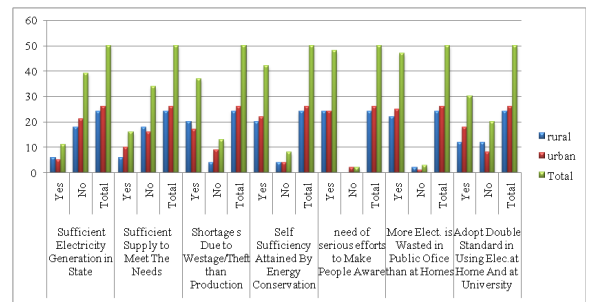


Figure 1: Students' Responses according to Residential Status

Conclusion and Suggestion

The attitudes of students towards energy conservation from different categories (rural and urban) were studied and analyzed by the researchers through the application of cross Tab technique of SPSS. On the basis of analysis and it can be realized that students from various categories are linking their attitude towards the saving energy and resources. Despite the differences, many similarities in their attitudes were also noticed. A very significant number, and 20 rural (83.33 per cent) and 17 urban (65.38 per cent) opined that the Wastage/Theft is more responsible for shortage in the supply of electricity than production. Out of total respondents, 83.33 per cent rural and 84.62 per cent urban respondents agreed that self-sufficiency can be attained only by energy conservation. Mainstream of respondents (22 rural, and 25 urban) were of the belief that more electricity is wasted in public offices than at homes. Out of total respondents, 12 (50 per cent) rural and 18 (69.23 per cent) urban respondents admitted that they adopted double standards in using electricity at home and at university. Hence, on the basis of the above discussion, it can safely be said that generation of electricity is not sufficient in the state and to meet out the needs of people. But, the Wastage/Theft and erratic supply is more responsible for shortage in the supply of electricity than production. It is advised that government should take actions to control Wastage and Theft of electricity.

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