

# SURVEY REPORT REGARDING SHORTAGE OF POWER SUPPLY IN REMOTE AREA

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**Abstract:** In developing countries such as INDIA energy was the main factor in technology as always developing well beings. There are some places where the grids are in poor conditions. Therefore in remote area there is a economic and source crisis and rural area grow well. This paper is survey analysis of crisis in remote area. A rural village [pali ,pahadgram] korba 22<sup>o</sup>35'N latitude 82<sup>o</sup>75' E longitude is taken for case study. As step first, have done survey of field and conclude with availability of sources [renewable], demographic statistics, life style, hydro stream flow rate, solar radiation etc.

**Keyword:** Homer, energy sources.

## 1. INTRODUCTION

Chhattishgarh is the middle part of the India which is also the part of the Asian country. Chhattishgarh is the state of power but in some place of the of this state we are facing some trouble in the field of electricity such as in some forest regions and some Mountaineer area or in some remote area. Here is the survey report of such type of remote area which is facing trouble in field of electricity. Pahand gawn and Senha (in pali) are such type of two places which are located in korba district at chhattishgarh. In world geographical map it is located between 22<sup>o</sup> 35'

N latitude and 82<sup>o</sup> 75' E longitude. According to current days need Demand of electricity in our daily life is increasing with the importance agriculture production, development of industries, development of living standard of as well as development of country .Due to the failure in the generation of power capacity as per the demand. So to balance uprising demands different options are preferred.

## 2. SURVEY

An effective survey should maintain all the legal liability and planed carefully. As survey is come to fine the crisis of power, life style, present energy and the sources available there etc. the survey report of all the data is collected from the village pahand gawn and senha where the people live the simple living. Here present 50 to 95 houses. The report is deeply discussed according to the study.

### 2.1. Overcome of survey:

#### 1. Profile location.

Name of area	Senha(korba) Chhattishgarh, India
Lattitude & Longitude	22 <sup>o</sup> , 35'N , 82 <sup>o</sup> , 75 E
The total Number of Houses over there	50

Average number of Member in Family	5
Total Population	250
Load Present over their	Nil

2.Profile location.

Name of area	Pahandgawn (pali) Korba, Chhattishgarh, India
Latitude & Longitude	22^0, 35'N , 82^0, 75'E
The total Number of Houses over there	95
Average number of Members in Family	5
Total Population	475
Load Present over their	5kw

3. SOURCE OF ENERGY

3.1 Solar resources:

The data available of solar resources are present in the above table.

Table 1. solar radiation data

Month	Radiation Data
Jan	5.66
Feb	6.38
March	6.24
April	5.83
May	5.24
June	4.44
July	3.32
Aug	3.30
Sept	4.05
Oct	5.60
Nov	6.13
Dec	5.82

The graphical representation of available solar resource according to the survey data from the proposed zone is shown in fig(1)

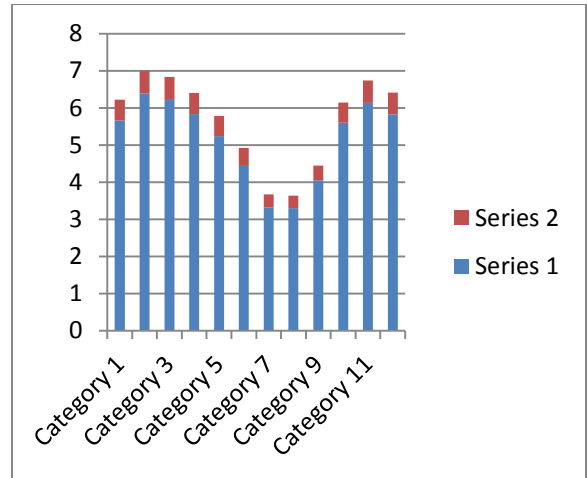


Fig:1 Solar resources

a) **Hydro energy:**The graphical representation of hydro energy are shown below according to the flow rate of the data.

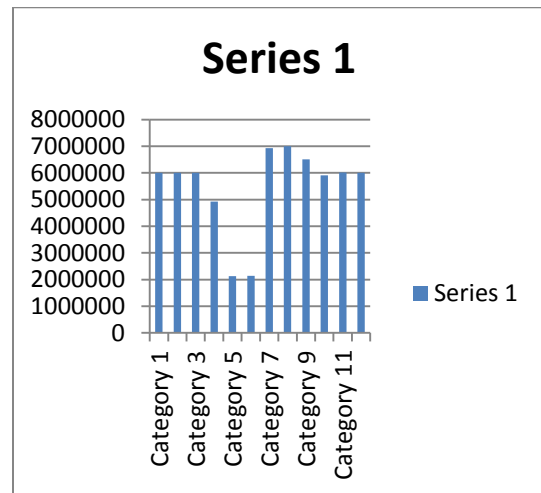


Fig:2 Hydro resource data

**b) Load estimate:**

As per senha: no load

Needed average load: 13.20 kw.

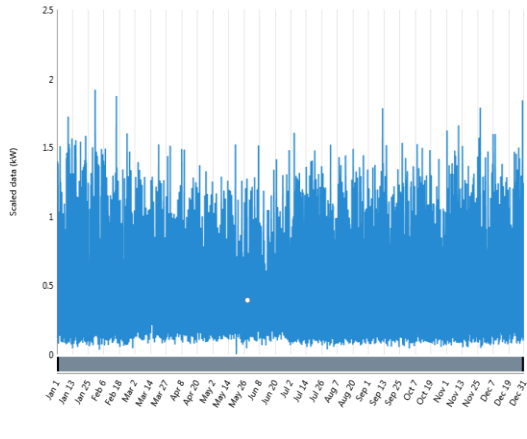


Fig:3 Load requirement of senha

As per pahandgawn: 5 kw

Needed average load: 27.647 kw

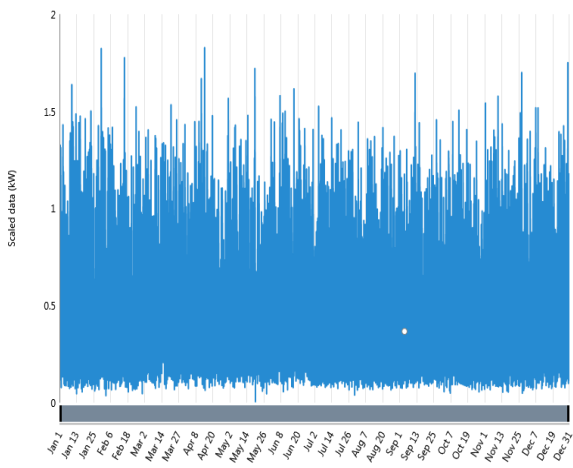


Fig:4 Load requirement of pahandgawn

**c) Source Selection:**

According to their potential the sources are selected. The available source are Solar PV and Micro Hydro.

**4. SURVEY REPORT/CONCLUSION**

The research analysis gave the experimental data which give the information about the renewable energy such as hydro energy and solar energy which is available in that area. Which energy help to built hybrid energy system consisting of this energy (solar, hydro). There are many such type of villages which are not developed such as its way of transport facilities , reliable source of energy, better communication sources so this type op hybrid system is one of the best way for fulfilling the energy requirement for the such type of area.

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