

# When Ideas Flow, Villages Grow

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## Introduction



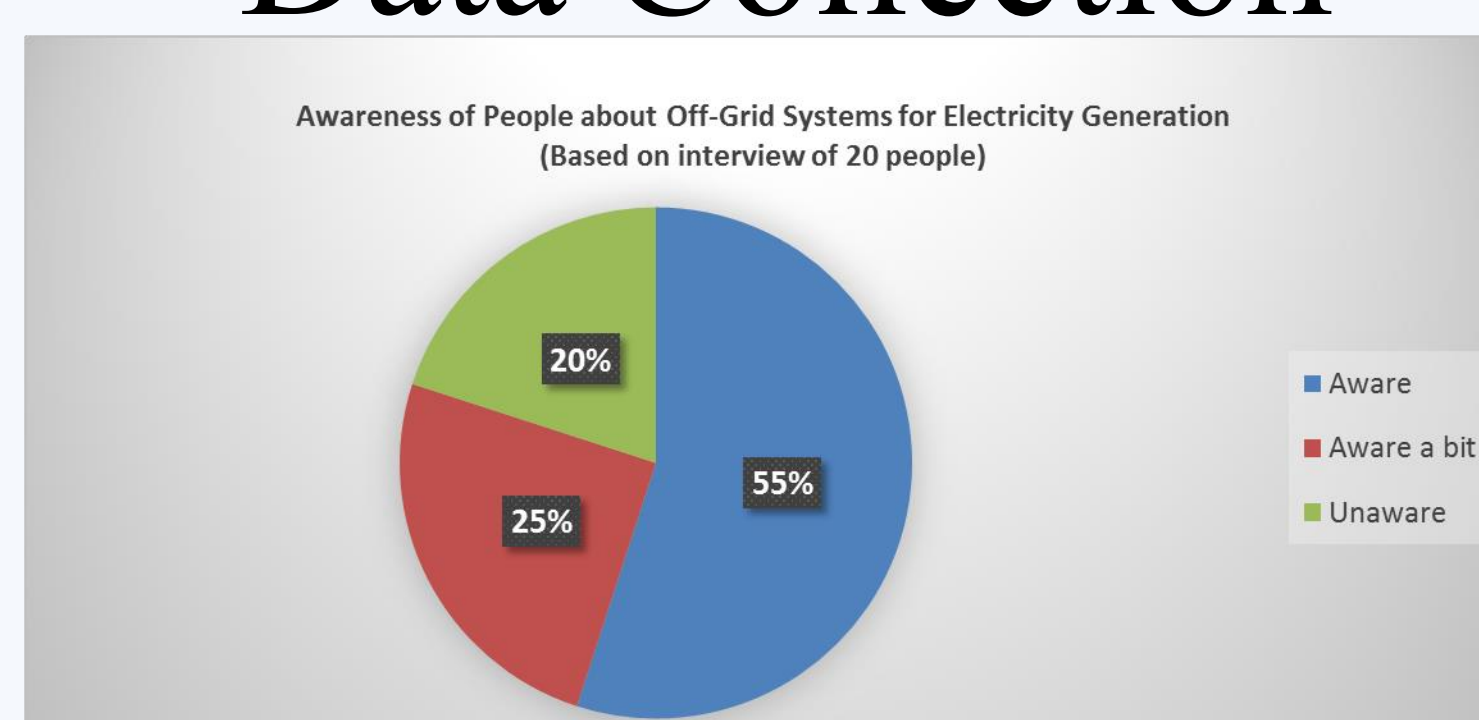
Pakistan is an agrarian country, with more than 70% of its people living in rural areas. According to estimates of International Energy Association (IEA), 56 million people in Pakistan are deprived of any form of electricity. Majority of these people live in rural areas. Electricity plays an important role in the life of all the people across the globe. It is now the basic need of humans. Without electricity we will be unable to do almost 90% of our daily tasks which seems quite easy in the presence of electricity. Kerosene oil lanterns and gas lamps or even fire are now things of the past. It is highly unimaginable for us, as to how people of these underdeveloped village areas might do once the sun sets. This makes their lives more tough and difficult. The national grid of electricity in our country is not good enough to supply electricity in far-flung rural areas. At this point of time, the idea of using renewable energy resources comes to our mind. The advantage of using these energy resources like solar, wind, tidal/ wave, geothermal and biomass is that there is no danger of them running out and they are environment friendly.

## Off-grid System as an Alternate Source of Generating Electricity



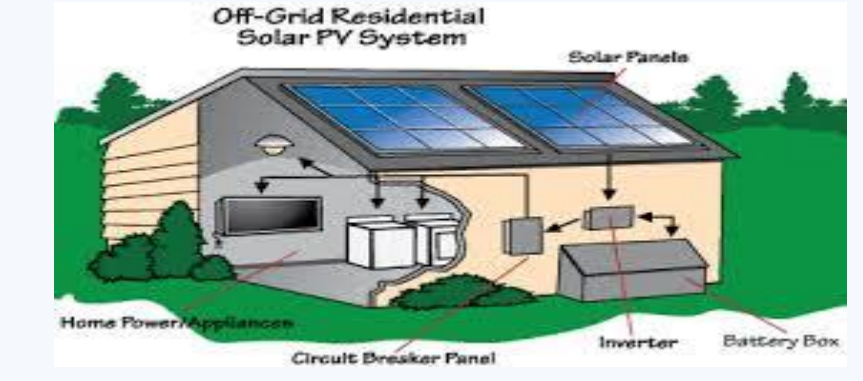
The off-grid system refers to a stand-alone power system or mini-grid designed typically to provide a smaller community with electricity. These systems are not connected to the main or national electricity distribution grid. Off-grid systems provide electricity to areas with little access to electricity, due to scattered or distant population, mainly the rural areas. It is a need of time that the villages of Pakistan should generate electricity through off-grid systems. By doing so they can lighten up their lives independently without relying on the national grid. This will also open up new horizons for them to live a respectable life and enjoy ease and comfort of various electrical appliances. In Jathi, District Thatta, Sindh rural electrification of 180 houses is done through an off-grid system with each house driving 4 LED bulbs of 5W each. The major source used is solar power being converted into electricity, thus benefiting the community to do different work after sunset. A two-room night school is playing a significant role in the development of this area. Solar tube wells and pumps are also helping farmers in their work as well.

## Data Collection



During my survey I have interviewed 20 people from my community and school and came across the fact that 55% of people are fully aware about off-grid systems for electricity generation. About 25% of people know a little bit and 20% are not aware about it. Majority of them were not aware about low electrification rates in rural areas. At the end I have come to know that, although most of the people are well aware about the importance of off-grid systems for generation of electricity but are less bothered to help in implementing as according to them it is costly and difficult to maintain. But they still think that in the very near future we have to look into it as the energy shortage is increasing day by day.

## Creating Awareness



In order to increase awareness about the importance of off-grid systems for generating electricity:-

- I will make posters and pamphlets and make presentations in my school to let my fellow students aware of the advantages of using an off-grid system instead of a national grid.
- I will also drive a campaign with the help of my parents and friends to aware my community about the advantages of using an off-grid system.
- I will also try to personally visit a rural area where people are actually benefiting from the off-grid system and make a documentary and play it during my community gathering and in my school.

I will try to persuade my listeners by using an off-grid system we have the following advantages:-

- We are no more dependent on the national grid.
- After initial investment we are free of any electricity rate increases, load shedding or blackouts.
- Off-grid system's electricity is more environment friendly.

## Impact



My awareness campaign has a very positive impact on the people of my community. Most of the people I met were convinced after seeing my data which proved that an off-grid system is more beneficial than a traditional national grid system. Some of the people also disagreed, citing the fact that usually an off-grid system is a bit more expensive to set up than we initially estimate. System maintenance and troubleshooting are serious, ongoing responsibilities with off-grid systems. You are solely responsible for whatever problem that may occur in an off-grid system.

From my research I learned a lot about the advantages of using renewable energy resources. I also came to know that energy crises are becoming a major problem across the globe and every country is making efforts to enhance the use of alternative energy resources as they are more sustainable and are definitely the future of the world.

## Reflection



With the availability and usage of alternative energy resources increasing day by day like off-grid systems for generation of electricity I feel my future is very much secure. With environment-friendly electricity available to us in the future with less danger of running out, we can fulfill our dreams by excelling in our field of study. People of our urban area as well as rural areas will have plenty of opportunities to work on development projects that will help their communities to lead a better and prosperous life. As I have mentioned in the beginning of my research that almost 90% of our life is now totally dependent on electricity. I am assured that with renewable electricity resources around, we have a long way ahead of us.