

Solar energy for WASH improvements and living comforts in Liberia

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11 CONCLUSION

Most people in Africa do not believe that solar energy is more than capable of powering their homes. For any project to be successful, an awareness is very much important and that goes for solar energy and its importance in any country as well. While others may say its initial cost is expensive, some do not trust and rely on it for full power. The lack of education about solar energy is one of the main reasons it has not been popular in developing countries like Liberia that faces difficulties in electricity generation. With only 1.2 percent of the rural population in Liberia connected to the grid, the need for off-grid lighting and energy products such as solar energy in Liberia is immense. Electricity is one of the main ways of getting a country on the right path towards development. In as much the government should be responsible for that, the people should also play their part in ensuring that happens.

About the 1.5kW system

The 1.5kW system is one of the smallest PV system in the world but it is easier for a home to 'self-consume' more or all of the energy produce directly. It produces an average energy of 6kWh. The 1.5kW solar panel kit has on an average 5-6 solar panels which are the option for smaller household and business. Each 1.5kW solar panel area measures around 1.6m x 1m, therefore you will need at least 10m² of roof space as an area of 1.5kW solar panel. The energy efficiency varies depending on the weather. Therefore, you will generate more energy in the summer than winter. During the summer, it has the potential to produce up to 8.5kWh per day and in the winter 4.8kWh per day. The cost for a 1.5kW solar system according to future solar WA is between \$2,000 - \$2,800.00 USD for the package.



HSR
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In a single hour, the amount of power from the sun that hits the earth is more than what the world consumes in a year. From the U.S Department of energy, each hour 430 quintillion joules of energy strikes the earth. In comparison, the total amount of energy that humans use in a year is 410 quintillion joules. We have a source of virtually unlimited clean energy in the form of solar power that the world is not capturing. Solar energy provides electricity without giving rise any carbon dioxide emission. It is clean, it is free, it is power and it electrifies. The world needs the sun and we can help to achieve that.