Local Area Grid: Power Distribution and Sharing within Neighboring Households

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Abstract

The Cost of installing a photovoltaic solar system for household remains high and exceeds the budget of most residential homes. Such an issue becomes even more serious in a country such a Jordan with a relatively low income per capita, and where 96% of required oil and gas is imported. This paper presents a project which gives the opportunity for low income households to share the cost photovoltaic solar systems, thus reducing the cost of installation, while at the same time reducing their electric bill considerably. The solution, called LAG, is based on resource sharing and power distribution. The solution is intended to be used in households existing within close proximity such as residential buildings or complexes. The LAG System works on and off the National Grid. The Core of the LAG system is an operating system that works on managing power resources in the most efficient manner.