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| **Abstract:** |  |
| **Energy is one of the essential requirements to alleviate poverty and socioeconomic advancement. Most of the rural area is not under the national grid; therefore, electrification in rural area is the crying need of Bangladesh. Government of the People's Republic of Bangladesh has issued its vision to bring the entire country under electricity service by the year 2030. The reserve of fossil fuel is diminishing; also the price of fuel is increasing throughout the world. Environmental pollution is another important issue. Green energy is current demand for the existence of future world. For that reason, reducing carbon emission and meeting energy demands are the main topologies to plan energy systems. As Bangladesh is an agricultural based country, biomass resources are available here and there is also good prospect of solar energy. Now-a-days CAES (Compressed Air Energy Storage) is another potential resource in the world. In this paper, a solar-biomass-CAES hybrid system is proposed for electrification of rural area in Bangladesh.** | |