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Abstract:

Bangladesh faces a tremendous energy shortage during the dry season. Agriculture is a very important part of Bangladesh and during the dry season this sector gets severe impact for the outage of electricity. To overcome this problem, many solar irrigation systems are already being implemented but most of the systems are using off-grid system. This paper presents the proposed design of an automated real-time irrigation feedback system in which the content, temperature, and humidity of soil moisture are measured automatically using moisture sensors and provide the extra energy to grid through net metering system. The cost analysis of the proposed irrigation model is being estimated using HOMER simulation tools. This proposed model would help the farmers to get water at a cheaper cost for irrigation, and also benefited the owner to gain revenue by selling electricity to grid during the off period of irrigation.