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## Production of Thermoelectric Power from Solid Waste of Canal View Cooperative Housing Society Lahore

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### Abstract

*The work presented in this article was carried out to study viability of production of thermoelectric power from the solid waste of Canal View Cooperative Housing Society; a colony in Lahore. The primary data collected from concerned sources were used to design the project that was subsequently appraised to determine its benefit to cost ratio, NPV and payback period (PBP). The results indicated that the Canal View, as a whole, consumes 1,144kWh electricity, while, the Society Office consumption including that for tube wells, street lighting, etc, is 62 kWh and it produces approximately 4 metric ton solid waste/day. The electricity that can be produced from this amount of solid waste is 50.47 kWh which is a small proportion of the total consumption. The cost of producing 50.47 kWh will be US\$ 0.75 per unit. The benefit to cost ratio at this scale of production was 0.33 which is less than 1; the reference standard, NPV is -\$610,795 (below zero) and PBP is infinite; thus, the projection is not feasible in this scenario. However, the project can be pulled towards feasibility if Canal View introduces bag system to collect waste components separately to eliminate zero value stuff to raise heating value of waste and fortify its nage with the waste of its neighboring colony.*

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