

# **STUDYING THE POSSIBILITY OF UTILIZING SOLID WASTES IN ANBAR PROVINCE TO PRODUCE ELECTRICAL ENERGY**

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## **Abstract**

Since there are great amounts of solid wastes in different places in cities and housing areas, and because of the overwhelming danger these wastes cause to the human health as well as nasty smell they give and their uncivilized outlook in addition to the great shortage of electricity in the country in general, a study on the possibility to utilize these wastes to generate thermal energy then electrical energy has been carried out in Anbar province cities. First of all, components of solid wastes have been classified to find out the percentage of each component as a dry matter. Then the mass of each component has been calculated annually. After that heat amounts and electrical power produced from burning wastes in each city have been calculated. Due to the splendid area Anbar province occupies, it has been divided into 5 regions to facilitate the wastes collection process and estimate the amounts of thermal energy and electric power available in each of these five regions. The results have shown that the amount of wastes rejected in some regions is enough to operate small electrical plants. For example, in Ramadi city alone there is an amount of solid wastes enough to produce more than  $250 \times 10^6$  kW.h/year.