

عنوان مقاله:

Benefits and Limitations of Waste-to-Energy Conversion in Iran

محل انتشار:

دوفصلنامه انرژی های تجدید پذیر و کاربردها، دوره 1، شماره 1 (سال: 1398)

تعداد صفحات اصل مقاله: 19

نویسندگان:

A. Ahmadi - *Iran University of Science and Technology School of Advanced Technology Department of Energy Systems Engineering*

F. Esmailion - *Iran University of Science and Technology Energy Systems Engineering*

A. Esmailion - *Civil Engineering Department, Islamic Azad University of Arak*

M. A. Ehyaei - *Department of Mechanical Engineering, Islamic Azad University, Pardis Branch, Pardis, Iran*

خلاصه مقاله:

Until 2026, the annual rate of municipal solid waste production will increase and the per capita waste generation in Iran will be 0.6 kg/person.day. In this paper, the process of conversion of waste-to-energy in Iran is investigated and the future situation is estimated. Also, the trend of waste management methods and energy production are evaluated. At the end, the benefits of the waste-to-energy process at the capital of Iran (Tehran) are observed. Waste-to-Energy (WTE) facilities in waste management are used within 3 regions of 22 metropolitan areas of Tehran and serve 950,000 citizens. With manufacturing new WTE plants in Iran, it would be possible to prevent the burning of about 15 million barrels of oil or 255×107 cubic meters of natural gas annually and use these fossil fuels to produce petrochemicals and export them. The associated overall expenses of WTE is also estimated in different countries at a rate of GDP between 300 and 3,000 \$ per ton of MSW. By substituting WTE plants instead of oil basic plants, can reduce about 0.13 kg/kWh CO₂ emissions. While most of the power plants are gas basic, that will have an increase of CO₂ emissions of about 0.19 kg / kWh

کلمات کلیدی:

Energy, Solid, Waste, Incinirator

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<https://civilica.com/doc/964722>

