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To Study Technologies to Convert Waste into Energy

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Abstract: *Waste management is a growing global challenge, with mounting environmental concerns and energy demands. Converting waste into energy has emerged as a sustainable and innovative solution to address both of these issues. This study provides a comprehensive review of the various technologies available for converting waste into energy, focusing on their efficiency, environmental impact, and potential applications.*

The review covers a wide range of waste-to-energy technologies, including incineration, gasification, anaerobic digestion, pyrolysis, and emerging approaches such as plasma arc gasification and microbial fuel cells. Each technology is evaluated based on its ability to transform various types of waste, such as municipal solid waste, industrial waste, agricultural residue, and biomass, into valuable forms of energy. This study highlights the advantages & disadvantages of these technologies along with challenges occurred while implementing them.

The impact of these technologies is assessed in terms of emissions, residue management, and the potential for resource recovery. Furthermore, the study discusses the economic feasibility and scalability of these technologies, taking into consideration the current energy market and policy landscape. The study highlights the importance of a holistic approach to waste-to-energy solutions.

Keywords: Waste to Energy Technologies, Types of Waste That Can Be Turned Into Energy, Methods to turn waste into energy, Advantages of Waste to Energy, Disadvantages of Waste to Energy, Advantages of Waste to Energy, Disadvantages of Waste to Energy, Impact of Waste to Energy, Challenges, Economic feasibility and scalability of Waste to Energy

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