Welcome to Safisana Ghana

The first Waste-to-Energy Plant in West Africa

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Waste to Energy Conversion in Ghana: The Role of Industry

By

Elikplim Asilevi

General Manager Safisana Ghana Ltd.

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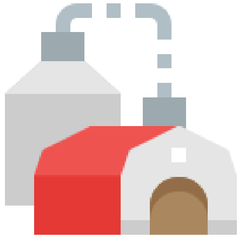
Introduction

As General Manager of Safisana, a pioneering waste-to-energy company, I welcome the opportunity to address the crucial role that industry can play in advancing Ghana's waste-to-energy (WtE) agenda.

Safisana's model converts faecal sludge and organic waste into:

Electricity

Biogas



Organic fertilizer

The WtE solutions has transformative potential for both industry and society.

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The Industry's Role in Ghana's Waste-to-Energy Transition

The waste-to-energy industry can:

Reduce Environmental Impact	Promote a Circular Economy	Create Sustainable Energy	Collaborate with Municipalities
- Consume green energy for industrial use - Reduce dependence on fossil fuels	- Benefit from byproducts of WtE processes - Adopt to a circular economy: waste from one process becomes input for another	- Diversify Ghana’s energy mix (currently dominated by hydro and thermal). - Reducing greenhouse gas emissions and improve energy security.	- Partner with local governments to co-finance or operate WtE projects. - Safisana’s partnership with Ashaiman Municipal Assembly demonstrates how PPPs can drive WtE success.

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Global Waste-to-Energy Success Stories: Takeaways for Ghana

Sweden

- Converts over 50% of household waste into energy.
- Imports waste from neighboring countries to fuel plants.
- Key to success: public-private partnerships, government incentives, and strict environmental regulations ensuring smooth collaboration among industries, municipalities, and waste management firms.

Germany

- Energiewende (energy transition) strategy.
- Over 9,500 biogas plants highlight how large-scale WtE adoption supports a greener energy supply and sustainable development.

Kenya

- Kenya's first grid-connected biogas plant in Naivasha showcases how African nations can harness WtE technology.
- Producing 2.2 MW of power, providing biogas as a renewable energy source for industries and communities..

India

- WtE plants generate electricity and address the country’s enormous waste management challenges.
- The Okhla WtE plant in Delhi processes 1,950 tons of waste daily, generating 16 MW of electricity.
- Reducing reliance on landfills and minimizing air pollution.

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Ghana’s Waste-To-Energy Future

- The integration of WtE into Ghana’s industrial framework is not only feasible but essential.
- Ghana faces mounting challenges with waste management, especially in major cities like Accra, where landfills are reaching capacity.
- Safisana’s model, which converts faecal sludge and organic waste into valuable products like electricity and biogas, offers a template for the broader adoption of WtE across Ghana.

1. **Incentivize WtE Investment.**

2. Develop Regulatory Frameworks

3. Promote Public-Private Partnerships (PPPs)

4. Create Awareness and Demand for Byproducts.

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Key ways how industry can advance the waste-to-energy (WtE) convention in Ghana

01
- Patronise Renewable Energy

02
- Promote a Circular Economy

03
- Public-Private Partnerships

04
- Invest in Sustainable Technologies

05
- Reduce Environmental Impact

06
- Drive Regulatory and Policy Support

07
- Create New Markets for WtE Byproduct

08
- Pay the Right Price

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Conclusion

The waste-to-energy industry has a transformative role to play in Ghana’s sustainable development, and industries must lead the change.

By integrating WtE technologies, such as those employed by Safisana, into their energy and resource management strategies, Ghanaian industries can reduce their:

- Carbon footprint
- Promote a circular economy, and
- Ensure long-term energy security.

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Confidential

For more information

Safisana Ghana Ltd., Accra

Tel: +233 (0) 302972380

Mail: ghana@safisana.org

www.safisana.org

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Thank you!