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CORPORATION

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wasteWOIMA®
WASTE-TO-ENERGY
POWER PLANT



wasteWOIMA®

THE MODULAR WASTE-TO-ENERGY POWER PLANT

The *wasteWOIMA®* waste-to-energy power plant is an exciting opportunity to investors looking for new profitable, yet sustainable investment targets. The power plant incinerates abundantly available municipal solid waste (MSW) and other waste streams into highly desired energy commodities, such as electricity or saturated steam. Potable water production is easy to add to the equation. In addition, the investor can enjoy the "free" revenue from the waste tipping fee for receiving the waste normally deposited in a landfill or dumpsite.

The whole world is struggling to cope both with its growing demand of "green" base-load energy and worsening waste management challenges. A waste-to-energy power plant seems an obvious answer, but committing to a \$200 million and seven-year project to build a large-scale WtE power plant in a demanding environment is not very appealing.

WOIMA is introducing its ground-breaking new solution to solve this challenge: the modular *wasteWOIMA®* power plant. It is a pre-engineered and prefabricated small-to-medium-scale power plant using 30,000 to 200,000 tons of waste fuel annually, depending on the quality of the waste and the number of *WOIMAlines*. The design is based on container-sized modules and it is engineered for a 30-year lifespan in the harshest of conditions.

A single *wasteWOIMA®* power plant is the perfect solution for a municipality or area of 100,000 to 500,000 inhabitants. For larger cities, these small-to-medium size plants can be decentralized to support both the decentralized waste management and distributed power generation plan. They offer significant savings and advantages in waste collection, waste treatment and localized power generation and distribution. The *wasteWOIMA®* plant is the perfect off-grid solution, where the national grid is not available.

One of the best guarantees for the investor is the plant relocation option. Thanks to its modular structure, the plant can be dismantled and erected in a new location, if needs or requirements change. Only the base slab is left behind.

The *wasteWOIMA*[®] power plant's modularity is based on a *WOIMAline* (boiler island) ideology. The plant consists of one to four *WOIMAlines* with the following parameters

- thermal efficiency 89%
- electrical efficiency 25%
- CHP efficiency 19% electricity / 68% thermal

The thermal energy is available as superheated steam (400°C@40 bar(g)) or any steam/hot water quality below that.

The *wasteWOIMA*[®] is capable of handling a wide range of non-toxic solid waste fuels, such as

- municipal solid waste (MSW)
- refined waste fuels (REF, RDF or SRF)
- industrial and commercial waste (ICI)
- construction and demolition waste (CDW)
- agricultural waste (AW)
- waste wood and
- different biomasses, such as EFB, rice husk..

The *WOIMA* business and delivery model is designed to de-risk the project delivery even in the most remote areas on the globe and it relies on

- high level of module pre-fabrication
- sourcing the unsophisticated items locally
- short construction and installation time on site
- simple maintenance
- advanced automation & remote monitoring

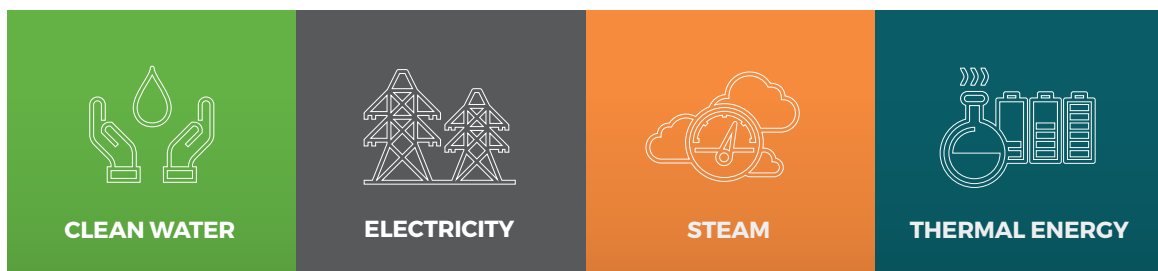
We have drawn up a number of potential use cases to help you realize the potential of the modular *wasteWOIMA*[®] power plant in different environments. These include e.g.

- Decentralized waste-to-energy solution
- Holiday resort waste-to-energy solution
- Landfill rehabilitation for housing purposes
- Organic waste power generation solution
- More power with landfill gas and biogas
- Waste reduction as a service



KEY FACTS

- Excellent return on investment (payback time typically 5 to 8 years)
- Low CAPEX / OPEX compared to large-scale power plants
- Power plant relocation option available
- Flexible power generation scheme
- Utilizing a free local fuel source (waste) and even landfills
- Easy exchange of broken or worn-out plant components
- Remote monitoring of plant performance
- Safe operation under any conditions
- Complies with the EU Emission Standards





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