



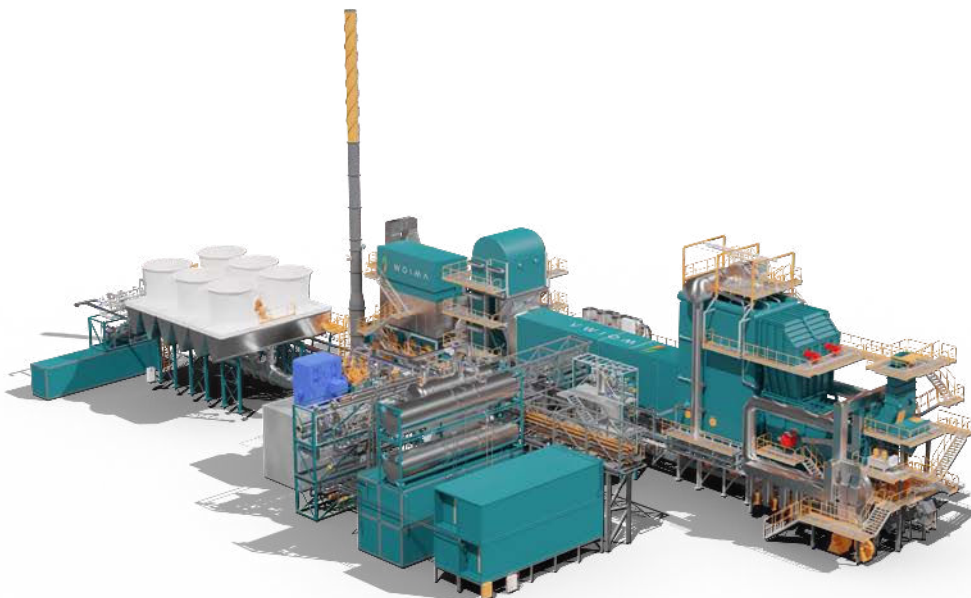
W O I M A

CORPORATION

## USE CASE

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*FLOATING barge* WOIMA®  
WtE POWER PLANT



## FLOATING *barge* WOIMA® WASTE-TO-ENERGY PLANT

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The standard *waste*WOIMA® power plant is fast and simple to deliver basically anywhere in the world thanks to its modular and pre-fabricated structure. However, sometimes the lack or cost of land prevents building the plant on firm ground. The *barge*WOIMA® waste-to-energy power plant is the right solution in those cases. The plant is built in a shipyard nearby onto a barge and floated in place with the help of tugboats. Once on location, all that is required is arranging the waste fuel feed and connecting the plant into the power grid.

Many of the world's landfills and dumpsites are located on the coastline or along rivers, which, at least theoretically, offer a cost-efficient way of transporting waste on and off the site. This unique location also presents a novel and feasible way of reducing the waste quantity on-site; the *barge*WOIMA® waste-to-energy power plant. The plant utilizes different solid waste streams, either new waste or already landfilled waste, to generate sought after energy commodities; electricity and thermal energy.

The *barge*WOIMA® plant offers another level of flexibility in the WOIMA product family. It raises transportability and relocation capability to another level. The plant can be easily towed several hundred kilometers to its final destination. On the other hand, it can also be utilized in short-term operations, like incinerating an existing landfill or dumpsite to free space for more valuable activities.

The *barge*WOIMA® power plant offers a cost-efficient waste reduction and power generation option to several different types of end-users; island holiday resorts, coastal cities, remote locations, and for temporary needs. It utilizes the local abundantly available fuel source (waste) to alleviate the growing need for green energy generation. With *barge*WOIMA® the investment is 100% protected. If and when requirements in one location change, the plant is simply towed to a new location. One thing is certain, there will always be sufficient amounts of waste fuel available close by.

Circular economy principles dictate that waste should be recycled as raw material, whenever and wherever possible. A waste pre-sorting facility segregating the different waste fractions can also be barge-mounted. This enables simpler collection and utilization of marine debris, before it joins the Oceanic garbage patches. And even the waste reception point can be a floating pier.

The *bargeWOIMA*® power plant uses non-toxic municipal, institutional, commercial, industrial and/or agricultural waste streams to produce saturated steam, electricity and thermal energy (heating or cooling). The required waste quantity is roughly 170 tons per day, which translates to

- 3.7 MW<sub>e</sub> of electrical power or
- 2.4 MW<sub>e</sub> / 10 MW<sub>th</sub> in heating mode or
- 2.4 MW<sub>e</sub> / 6 MW<sub>th</sub> in cooling mode

The plant is delivered assembled on a barge and thus ready to operate once waste fuel feed and grid connection have been arranged. It is cost-efficient to run and simple to maintain offering all stakeholders significant benefits.

## BENEFITS:

### WASTE MANAGEMENT

- Creating new business potential
- Simplifying waste logistics
- Reducing environmental impacts
- Matching future regulations
- Postponing landfill investments
- Green image benefits

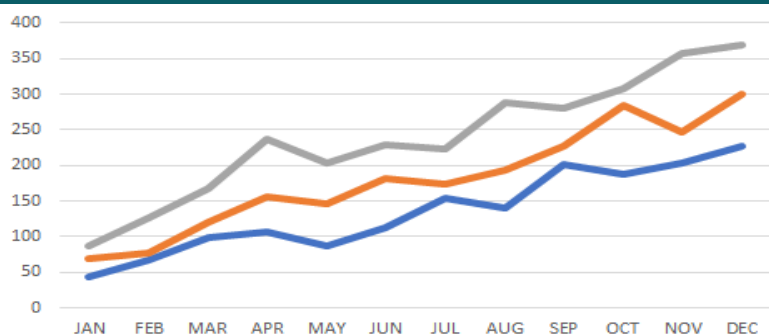


### POWER & UTILITY

- Decentralizing power generation
- Enabling off-grid solutions
- Offering fuel & production flexibility
- Harnessing endless fuel source
- Utilizing carbon credit schemes
- Fast plant delivery

### INVESTORS

- Excellent return on investment (ROI)
- Scalable business model
- Diversified investment portfolio
- Vendor arranged funding
- Fast project roll-out
- Plant relocation option



### OTHER STAKEHOLDERS

- Turning waste into local welfare
- Health & environmental benefits
- Local reliable energy supply
- Educational & job opportunities
- Improving living conditions
- Implementing development funding



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#### YOUR LOCAL CONNECTION

