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®** waste-to-energy power 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 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.

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 MWₑ of electrical power or
- 2.4 MWₑ / 10 MWₑ in heating mode or
- 2.4 MWₑ / 6 MWₑ 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:**

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

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

- **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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