

CORPORATION

**USE CASE** 

HOLIDAY RESORT WASTE-TO-ENERGY SOLUTION



# HOLIDAY RESORT WASTE-TO-ENERGY SOLUTION

Tourism is a revenue-generating and job-creating blessing for many developing countries, but it can turn into a curse, unless it is developed in a sustainable manner. Holiday resorts consume huge amounts of energy and also generate lots of waste, which should be disposed of in an efficient and environmentally friendly manner. Recycling and utilizing the energy potential of waste saves scarce local raw materials and imported fuels.

Many developing countries get a lion's share of their foreign currency from tourism, which is why more and more exclusive holiday resorts are being established on remote areas of natural beauty. These resorts have also become accessible to a growing number of visitors due to the continued economic growth in the industrialized countries. However, western holiday-makers have come to expect western standards also on vacation. These include hot showers, air-conditioned rooms and potable water straight out of the tab.

The combination of the terms 'remote' and 'developing country' almost certainly mean that the resort has to be self-sufficient with regard to its power and utilities. Even if an adjacent town had power generation and water treatment capabilities, they would hardly be designed to serve tens of thousands of western visitors annually. The reduced footprint in both energy generation and waste management also creates green image benefits to the resort.

The modular wasteWOIMA® waste-to-energy power plant is a all-inclusive solution to all of the above-mentioned challenges. It simultaneously produces electricity, thermal energy (heating, hot water or cooling) and potable water replacing the sometimes unreliable national grid and diesel generators as a source of electricity, solar water heaters in hot water production, separate water purification or desalination systems and offers energy to an integrated wastewater treatment plant. And all this using free abundantly available fuel; waste.

As an added bonus, the modular *waste*WOIMA® power plant incinerates all the solid waste from the resort and its surrounding areas thus reducing unnecessary traffic, simplifying waste logistics and preserving the nature. The waste quantity is reduced by over 95% and methane emissions from landfilled organic waste by over 60%. Reduction or elimination of landfills altogether is yet another benefit.

The modular wasteWOIMA® power plant uses nontoxic municipal, institutional, commercial and/or industrial waste to produce superheated/saturated steam, electricity, thermal energy and/or potable water. The required waste quantity is roughly 170 tons per day, which translates to 3.7 MW<sub>e</sub> of electrical power or 2.0 MW<sub>e</sub> / 10 MW<sub>th</sub> in cogeneration. The plant is easily delivered, quick to install, 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





#### **INVESTORS**

- Excellent return on investment (ROI)
- Scalable business model
- Diversified investment portfolio

- Plant relocation option



# **POWER & UTILITY**

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





### OTHER STAKEHOLDERS

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



#### **CONTACT INFORMATION**

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