

# BRIEF

# Waste to Energy Projects - Greece

## THE TECHNOLOGY

The WtE solution developed by WTTEC Systems Inc is based on the “gasification process” and because of the unique design each facility has a zero emissions footprint.

## A UNIQUE SOLUTION

**ZERO LANDFILL** – The WTTEC WtE facilities are designed to process a variety of MSW, industrial, commercial, construction and medical waste. This means that there is no need for waste to be deposited at any landfill site.

**FLEXIBILITY** – A WTTEC WtE facility can be used to generate electricity as well as a wide range of products such as fuels, flyash, carbon black, tar/pitch and potable water.

**EFFICIENCY** – Each facility is fully automated and continuously monitored to ensure that each plant operates at peak performance and efficiency 24/7.

## PROJECT PRINCIPAL

**Mr. Ioannis Sarris**

Mr Sarris is the sole shareholder and the ultimate beneficial owner of I.P.P.S Energy - Environment Solutions Limited

## CONTACT DETAILS

**Mr. Ioannis Sarris**

Phone: +30 690 911 1841

Email: ioannis.sarris@ipps-ees.com

## The Project

- **I.P.P.S Energy – Environment Solutions SA (IPPS-EES)** a wholly owned subsidiary of I.P.P.S Energy - Environment Solutions Limited, has secured two “waste to energy” (WtE) projects that are ready to commence. Both projects are designed to process 300 tons of municipal solid waste (MSW) per day.
- The first project is located on the Island of Rhodes and the second project in the Attica Periphery, Greece.
- IPPS-EES has entered into a turnkey project agreement for the planning, construction, manufacturing, installation, training, testing and commissioning of the two projects described above. WTTEC Systems Inc. ([www.wttec.ca](http://www.wttec.ca)) will perform the project contract through a local wholly owned subsidiary, WTTEC Greece SA.
- Upon completion of the turnkey projects, IPPS-EES will perform the day-to-day operation of the facilities as well as the continuing planning and environmental certification compliance as required by the Ministry of Energy and Environment, Hellenic Republic.
- The environmental studies for each site are currently being finalized and approved and soon as this task is completed facility planning, manufacturing and site preparation can commence.
- The Municipality of Rhobes and the Attica Periphery have committed to Supply Contracts (over 20 years) for the daily delivery of MSW, commercial and industrial waste volumes that ensure each facility operates at peak capacity throughout the year.
- Off-Take contracts have been negotiated for the supply of electricity and diesel fuel.
- Each facility is designed to operate 24 hours a day seven days a week and the facility’s daily operation requires three 8 hour shifts.
- Each site provides local employment for 65 personnel ranging from production engineers, production staff, lab technicians, maintenance, admin and management staff.



## The Technology

- WTTEC has developed a unique waste processing solution or WERS (WTTEC Energy Recovery System) that utilises existing components available off the shelf that have been adapted and integrated to produce a highly efficient waste recovery and conversion solution.
- Each WERS facility consists of a large enclosed waste collection area where any pre-processing and separation occurs. The waste stream is then processed where it is shredded and reduced to RDF (Refuse Derived Fuel) with a moisture content of < 20%.
- The RDF is processed through the gasifier (EnviroCycler™) and converted into syn-gas and steam which is used to generate electricity or is converted into useful products such as diesel and low sulphur-aviation fuel.
- The syn-gas is converted into fuel using the Fischer Tropsch method and then all of the residual materials are processed further to extract additional by-products.
- The end to end WERS solution is completely enclosed and contained to ensure that no emissions are released into the atmosphere during operation of the facility. All waste by-products are contained onsite.

## Use of Funds

- **The total project cost is estimated to be €250 million**
- The table below details the major expenditure items involved in the project over a two year period, commencing in Q1 2023 and finishing Q2 2024.

WERS WtE PROJECT		
kEuro	2023	2024
Planning	20,000	10,000
Manufacturing	120,000	5,000
Site/Construction	60,000	10,000
Installation	10,000	5,000
Commissioning	5,000	5,000
<b>TOTALS</b>	<b>215,000</b>	<b>35,000</b>