

## PROJECT SUMMARY

<b>Ref No.:</b> MRC/CRIGS-A18	<b>PROPOSAL TITLE:</b> Evidencing Mauritian Potential for Waste to Energy Recovery Systems (EMPOWERS)	
<b>Priority Area:</b> Renewable Energy		
<b>NAME OF LOCAL COMPANY:</b> SOTRAVIC LIMITEE		
<b>Company Director:</b> Mr Emmanuel André		
<b>Collaborating Institution:</b> The University of Mauritius		
<b>Head of Collaborating Institution:</b> Prof Romeela Mohee		
<b>PROJECT LEADER</b>		
<b>Name:</b> Mr Menran Abdouramane	<b>Company</b> SOTRAVIC LIMITEE	
<b>RESEARCH COLLABORATOR(S)</b>		
<b>Name</b>	<b>Organisation</b>	
Dr Vikam Seebaluck	University of Mauritius	
Dr Sindra Lutchmee Summoogum-Utchanah	University of Mauritius	
<b>PROJECT COLLABORATOR(S)</b>		
Mr Florent Bourgarel	ETIA	
<b>TECHNICAL ABSTRACT</b>		
<p>Mauritius generates 417,000 tonnes of Municipal Solid Waste (MSW) each year. The quasi-totality of these wastes is collected, transferred and ultimately disposed in the Mare-Chicose landfill.</p> <p>With an integrated waste management approach, it is estimated that the renewable energy generation from waste could reach 10MW in the forthcoming years. This will elevate the amount of electricity produced from such sources by more than 300% and build on the existing CDM certified 3.3 MW landfill Gas-to-Energy facility. Furthermore, the matching</p>		

benefit will be the diversion of waste to landfill which is as significant as the renewable energy potential.

The potential to waste-to-energy (WTE) can only be evidenced with a thorough study on the waste management processes including collection, transport, treatment and disposal together with tests performed on the different fractions composing the waste. The study will focus on key commercial applications such anaerobic digestion for the organic fractions of waste and pyrolysis-gasification, refuse derived fuel combustion in existing coal-bagasse power plants or other waste to energy technologies for the combustible fractions. The penultimate objective is to achieve seamless integration for the applications within an optimised integrated waste management solution.

The project will conclude on the potential of our waste fractions-organics and combustibles, level of waste processing required, optimal type, sizing and format of WTE facilities (centralised/decentralised/existing) for the Mauritian context.

The project team will be composed of waste management professionals (SOTRAVIC), energy scientists (University of Mauritius) and waste to energy project developers (ETIA).

The project is in line with the Government Strategy for renewable energy production and for waste management.

**Key Words:** Waste, Waste to Energy, Characterisation, Supply chains, Centralisation, Decentralisation, Pre-processing, Renewable Energy, Refuse Derived Fuel