

---

# Musical Chairs with Waste-to-Energy Technologies

Jaco Van Der Walt\*<sup>1</sup>

<sup>1</sup>South African Nuclear Energy Corporation [Pretoria] – South Africa

## Abstract

The current effort which the world is investing into Waste-to-Energy technologies, and the associated possibilities to generate viable SMME's in this sector, causes waste to become a worldwide commodity. Waste has various sources that range from residences to office parks to hospitals, municipalities and industries amongst others. Each of these sources generates different quantities of waste which compounds the effect of disposal cost due to gate- or tipping fees. The disposal cost may vary from ~\$100 per ton to ~\$20 000 per ton depending on the hazard level of the waste. Most industries drive the reduction of this cost, thereby reducing their operational expenses. In addition to dealing with waste in a less costly manner, the possibility to convert it into a sellable energy product such as electricity or fuel, is very attractive. But how do you go about selecting the most appropriate waste treatment process? The concept used by the children's game, Musical Chairs could be used. If the different Waste-to-Energy technologies, with their individual attributes are the players and the waste treatment criteria, for a specific application are the chairs, an elimination process based on the Musical Chairs concept could be applied to select the most appropriate technology for the specific application.

This talk will elaborate on a few scenarios where the Musical Chairs concept could be used for technology selection. The role Plasma Waste-to-Energy technology plays in the modern waste to energy landscape will also be emphasized.

---

\*Speaker