



2017 Progress Report

WTERT Brasil Activities during 2017

Rio de Janeiro, December 27, 2017

1. WTERT- Asia Inaugural Meeting

The formation of the Asian Chapter of WTERT took place in Nanjing, China in April and WTERT Brasil presented the waste management status in the Country. Besides Brazil and most Asian Countries we had Colombia, USA, Spain and Germany representatives of their respective WTERT organizations. Everbright International, sponsor of the meeting, made a perfect program that included three days of presentations, exhibitions, technical visits and profitable technical discussions between all sister WTERT organizations. Everbright has shown strong interest in Brazil WM situation and WTERT Brasil has committed to disclose the fantastic Chinese WTE development in the past 15 years upon return to Brazil. A complete report on the visit was published in the Brazilian home page <http://wert.com.br/site/wp-content/uploads/2017/11/WTERT-ASIA.pdf>

2. Political Activities aiming to Improve WM Legislation in Brazil

The new Brazilian Law on Waste Management was published in 2010 and has been criticized by WTERT Brasil from the very beginning. The reason was the Law does not establish any restrictions on waste disposal in landfills stating that landfills are an environmental sound solution. Although this seems correct, in Brazil there are no directives, similar to European 1999/31/EC, restricting organic waste disposal, leachate treatment, biogas capture, closure cost and many others. The new “sanitary landfills” have been built without any environmental protections including leakage of untreated leachate to the rivers and ocean. WTERT Brasil declared a “war” against this policy and was joined by a very important institution The Lawyer Bar Association of Brasilia the Capital of the Country. WTERT Brasil made a 90 minutes presentation for some high authorities in Brasilia which was professionally filmed and posted at the home page and YouTube

<https://www.youtube.com/watch?v=G7ClhSOshpU> Another important article was published for Canal Energia, the most important online media about energy in Brasil:

https://drive.google.com/file/d/1_8T7KIQZbn6dhERNI7DcTOtIIX7IdHKw/view?usp=sharing Also a printed and online magazine interviewed WTERT Brasil and made an article comparing China and Brazil on WM activities https://drive.google.com/file/d/1Fbo1KVM8E9co_cQqIHp3FFWEGo9OIMih/view?usp=sharing



3. WTERT Participating with CONCREMAT in a 2 years IDB Project to Bring WTE to the State of São Paulo

IDB has launched a 2 years research project grant to study ways to improve the feasibility of WTE plants in São Paulo. Concremat, a large contractor firm based in Rio de Janeiro, made a partnership with WTERT Brasil and we have been shortlisted to get the project. The results should be available early next year (2018) <https://renewablesnow.com/news/to-the-point-idb-brazils-sao-paulo-to-partner-up-for-green-projects-581698/>

4. Three days Mini Course given at SABESP (Sanitation Company of São Paulo State)

SABESP, formerly a water and sewage treatment company will be in charge to help improving the WM situation in São Paulo State. They are creating an Energy Branch to act as an interface between the WTE plant and the municipalities using the huge network they have to collect the tipping fee together with the water/sewage fees they already charge the houses. WTERT Brasil is engaged in helping them to learn about WTE technologies.

5. Hybrid Cycles (Biomass/MSW/Natural Gas) Applications – GasBrasilano/WTERT Project

This research partnership with *GasBrasiliano*, the natural gas distributor in West São Paulo State, started in 2015 <http://www.gasbrasiliano.com.br/noticias/saiu-na-midia/gasbrasiliano/> and has been recently renewed. So far five major ethanol mills were studied and the results indicate a small amount of natural gas can double the net energy export of the cogeneration plant. The main client is RAIZEN, a Shell Company, with USD 23 billion gross income in 2016. The same solution can be applied to WTE plants in Brazil and it will be considered in the IDB project described in item 3.

6. Partnership between WTERT Brasil and PUC- RJ

Catholic University at Rio de Janeiro (PUC-RJ <http://www.puc-rio.br/english/>), a private Jesuit school and one of the most prestigious in Brazil. WTERT president, who obtained his BS in Mechanical Engineering there, is co-advisor of a Master Thesis on hybrid cycles applications in biomass and MSW. There are several students working on WTE and we are discussing how PUC-RJ and Columbia University can establish some type of cooperation on WM technologies.



A handwritten signature in black ink, which appears to read "Sergio Guerreiro Ribeiro".

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