GreenCape

More Value, Less Waste

1. Introduction

- Difficulty in obtaining feedstock (oil) at the right price and quality for the manufacturing biofuels, initiated DNA to investigate various alternative sources of Fats Oils and Grease (FOG).

- DNA has developed processes to extract oil and solids from waste water and is very close to a total renewable energy supply chain solution, with minimal waste being left over.

2. Business case

- Conversion of effluent water and animal waste into
  - Burner fuels and
  - Biofuels

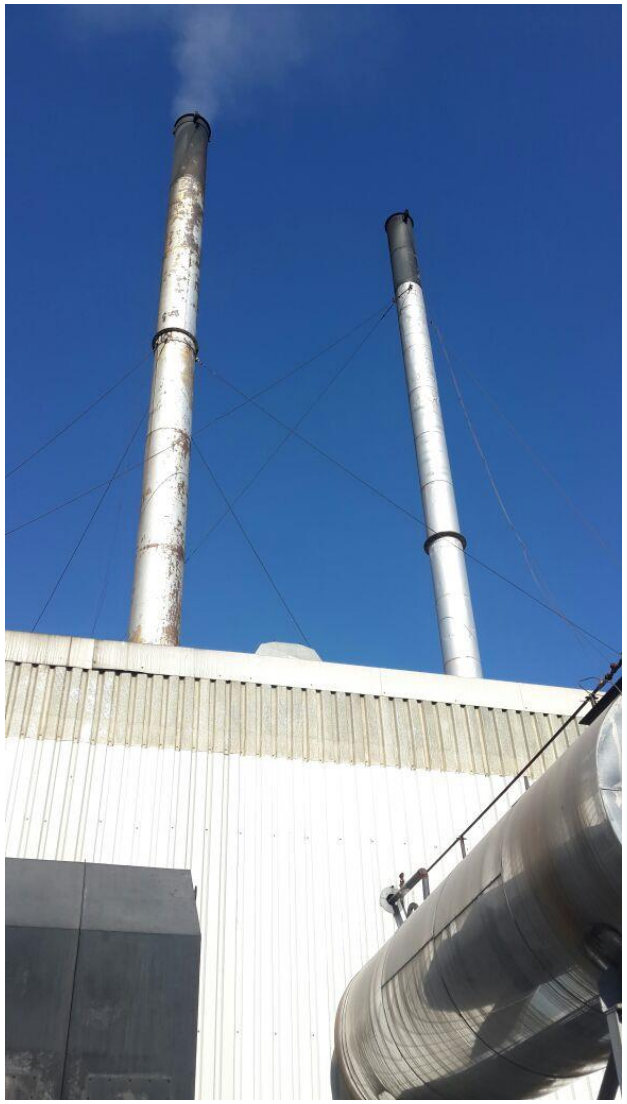
- Low conversion cost with relatively low capital expenditure compared to traditional rendering, effluent water treatment and fuel manufacture

2. Business case (continued)

- Lower burner fuel prices;
- Carbon tax advantages;
- Byproduct reduction and
- Saving in waste disposal costs.
- Recycling of sludge form effluent water
- Reduction of COD, BOD and FOG in effluent water
- Have a plant up and running

3. How

- Focussing on abattoirs that are not big enough to render;
- Focussing on the conversion of waste currently being disposed off;
- Design of low-cost rendering facility



4. Barriers

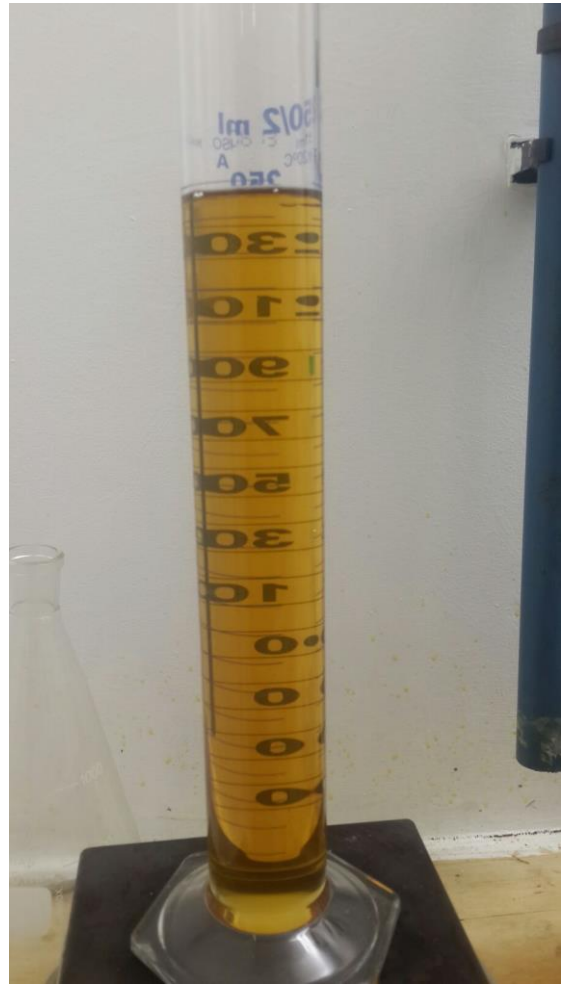
- Scarcity of data and / or previous trails
- Buy-in from the industry
- No regulatory standard for the manufacturing of fuel from animal oils
- Testing facilities
- Capital investment

5. Key Benefits

- Lower burner fuel prices;
- Creating a market for Biofuels;
- Carbon tax advantages;
- Byproduct reduction;
- Saving in waste disposal costs;
- Recycling of sludge from effluent water
- Reduction of Chemical Oxygen Demand (COD), Biological Oxygen Demand (BOD) and FOG in effluent water
- Less waste being disposed off

6. Lessons

- Too many to mention, happy to chat afterwards



7. Key Enablers

- Fast tracking of Environmental Impact Assessments;
- Government commitment and drive to enforce mandatory blending regulations of Biofuels;
- Access to grants for Research & Development.