

30 August 2019

ASX: IGE

# Amsterdam Project Report

- Construction on track as final stages are reached
- Commissioning plan being finalised
- Target is to produce 5,000 litres of Fuel in November 2019

Further to our last Amsterdam Project update on 31 July 2019, the Directors of Integrated Green Energy Solutions Ltd ("IGES" or "the Company") are pleased to update the market on the Amsterdam construction progress as it enters its final stages. The following represents a summary of the latest Amsterdam Operations Management Team weekly updates. These updates summarise all action items and critical paths utilising Microsoft Project and input from a range of suppliers and employees. Following input from Australian management during onsite working sessions held during June and July, the final phases of the project have been dissected as follows:

# Phase 1: Produce 5,000 Litres of Fuel - 27 November 2019

The major critical step to be completed for this phase is to finalise and agree the commissioning/testing plan with the Amsterdam Competent Authority ("CA"). Central to the completion of this phase is obtaining final authorisation on all operation manuals, CE Marks and safety procedures. The Company is very focused on maintaining compliance in all these areas and has utilised ISO 9000 quality controls systems to ensure the highest standards. In addition, safety and environmental protection are implicit in the IGES ethos so we do not anticipate major issues working through the CA requirements but acknowledge that the regulatory process does not necessarily have a specific time-frame. Following consultation, the commissioning/testing plan will be submitted to the CA by 30 September 2019 which we believe will give more than adequate time for any refinements prior to the initial production.

The other critical step with a long lead time related to this phase relates to the delivery of all steel necessary for completion of the necessary infrastructure components required for the refinement of fuel. We are currently working with our key Dutch supplier, Ijbouw Projecten B.V. to coordinate lead times and timely, phased deliveries.

Also, prior to Phase 1, although the volumes will not require it, the second 50 tonne per day module will be moved from its current storage facility in Amsterdam to the IGE site at the port address of Petroleumhavenweg 1 C 1041 AB Amsterdam.

# Phase 2: Initial Fuel Sales to Client - 17 December 2019

Upon completion of phase 1, the goal is to have all phase 2 deliverables in place at the time of the launch of phase 1. Phase 2 is focused on refinements coming out of Phase 1 and reporting on all testing results to the relevant authorities before selling the initial off-take to our offtake partner FinCo Supply & Trading B.V. The production of finished product is scheduled in November with the first offtake sales being reported in December, 2019.

## Phase 3: Ramp Up to Full Scale Production - 11 March 2020

#### Near-infrared technology

To reach full-scale operations of processing 100 tonnes per day of plastic, high-volume nearinfrared technology feed-stock processing equipment will be installed. This equipment is supplied by the major European recycling solutions company: Bollegraaf Recycling Machinery B.V. ("Bollegraaf"). The build of this equipment has been largely completed by our supplier and is currently stored off-site at a Bollegraaf warehouse.

The Bollegraaf system is a fully automated sorting robot, ready and capable of sorting and separating plastics during the final stages of a waste sorting process. Materials selection only requires the touch of a button, and ranges from PET, HDPE, LDPE, PVC, PS and PP to Tetra Pak, OCC or paper of various shapes and sizes. The IGES requirement is to extract PVC and Teflon from the final plastic feedstock received from our feedstock partner, Paro Amsterdam B.V. ("Paro").

The systems is placed on top of existing sort lines with very minimal retrofit costs and plant time lost. Vision is organised via near-infrared technology and height detection. One detection module operates up to ten sorting modules. The system can sort intermittently or continuously, regardless of working conditions on site, and requires minimal supervision and little maintenance. Its flexible, modular configuration enables the Amsterdam facility to choose the number of sorting units required and simultaneously sort up to 4 different materials per module. The system's flexibility allows us to change material waste streams, so we can adapt to, for instance, changes in product mix received from Paro.

The low energy consumption and the cost savings on manual labour makes this system a highly cost-efficient solution and leaves us with a pure feedstock ready for input into our plant for conversion to fuel.



## Fuel tanks

An additional key deliverable required at fuel production in the vicinity of 100,000 litres per day is high volume tank storage. The site tanks will be supplied by the Belgian company CTC Tankbouw BVBA.

## **Human Resources**

The other key deliverable the management team are currently working through is sourcing appropriately qualified personnel in the Amsterdam area to finalise construction and operate the site.

## **Project Summary**

IGES is confident of reaching these targets within the identified time-frames which are based on the previously announced, scheduled funding draw-downs and are subject to the timely delivery of the abovementioned key deliverables. The management team remain focused on monitoring the evolution of the critical path as more information becomes available and the Directors will update the market accordingly.

## About IGES

IGES is focused on creating a cleaner planet for the next generation through the conversion of end of life plastic into valuable fuels. Plastic used in the process would otherwise be sent to landfill or be discarded into the environment. The Company has a patented plastic to fuels process that results in a range of fuels and products, including EN590 (Road Ready Diesel), EN228 (Road Ready Petrol), Naphtha, Marine fuel and Marine Diesel Oil (MDO). The specific products we provide from our range are determined by the territory requirements for each individual site location. The Company believes that utilising its technology will inevitably reduce the amount of plastic entering the environment. It will also help to develop circular economies, thereby creating a cleaner planet for the next generation, while bringing value to shareholders.

# FOR FURTHER INFORMATION CONTACT:

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