

23 October 2019

ASX: IGE

IGES Europe Update

- **Amsterdam Permit Revisions Approved**
- **Amsterdam Commissioning Plan Submitted**
- **Northampton Feedstock Secured**

Amsterdam Permit Revisions Approved

The directors of Integrated Green Energy Solutions Ltd (“IGES” or “the Company”) are pleased to announce that the Amsterdam Competent Authority (“CA”) has formally approved amendments to the operating permit previously granted (permit number OLO-1130151) so that the facility has extended storage capacity and an expanded foot-print to allow for future growth. These amendments along with the previous permissions to operate have been encapsulated in the one revised permit. Shareholders are able to review the extensive permit information for our Amsterdam site at the following independent government web-site:

<https://www.odnzkg.nl/mozard!/suite92.scherm1007?mObj=19590>

In addition to the extended storage capacity and an expanded foot-print, after refinement of the plans and discussion with the CA, the revised operating permit also allows for:

- Process optimisation in the pre-treatment of plastic waste: sorting with metal separators (magnetic tape and Eddy current separator) and two shredders;
- Point suction in the sorting hall to destroy odours;
- Production (with storage and transfer) of K1 liquid (naphtha) by distillation separation.
- Placement of low-pressure gas storage to improve process efficiency;
- Use of electrically driven forklifts and 2 battery charging points;
- Installation of a reverse osmosis unit (RO) for the production of demineralised water.
- Placement of a roof at the tank loading area;
- Installation of a new, 270 m³ plastic, low pressure gas container for storage of pyrolysis gas; and
- Construction of a new fire pump house.

Amsterdam Commissioning Plan Submitted

A comprehensive commissioning plan for the Amsterdam facility has been formally submitted to the CA. This plan has been prepared in conjunction with the CA and covers areas such as:

- Cold commissioning:
 - In this stage, all drives are run with free of heat on the system and an absence of feedstock; and
 - Water is pumped through the modules to confirm the plant’s integrity as well as calibrate all pumps and instrumentation.
- Hot commissioning:
 - This stage involves testing of the combustion and emission controls systems; and
 - No flammable products or feedstock run through the kilns.

- Solvent extraction test:
 - During this stage IGES will test the parameters to run the solvent extraction facility.
- Other testing:
 - Safety systems such fire detection, firefighting, oil/water sewer, and the emergency flare;
 - Utilities including cooling water, chilled water, hydraulics and pressurised air; and
 - Feed and discharge systems.
- Full process commissioning with plastics:
 - Involves short runs on entire plant using 5 tonnes of plastic feedstock.

Once the cold and hot commissioning is complete and signed off by the CA, commercial production will commence where the plant will be ramped up to its approved 100 tonnes per day (“TPD”) capacity over a 3-month period.

This commissioning plan is a critical part of any plant’s successful start-up and expansion to full capacity and will be fundamental in both protecting the company’s assets and our employees from an occupational health and safety perspective.

The CA has confirmed receipt of this documentation and formal acceptance of this commissioning plan and approval to proceed with the ramp-up is currently under review. When approval is given the Board will further update the market as to expected timings of start-up production runs.

Subject to the final formality of acceptance of the commissioning plan by the CA, IGES has achieved full compliance with the operational due diligence check-list identified by Structured Growth Capital. That is, as of 16 October 2019, the receipt of the abovementioned CA Permit revision means that all other necessary compliance measures required to satisfy Structured Growth Capital’s operational due diligence check-list, as referred to in the Company announcement dated 1 October 2019, have been met in full.

Northampton Feedstock Secured

The Company entered into a 10-year feed-stock contract with Recyk Yorkshire Limited (“Recyk”) and details have now been finalised to confirm that the quality, quantity and logistics are in place for Recyk to act as the feedstock supplier for the recently announced Northampton site.

As announced on 14 June 2019, the site selected for the Company’s Northampton project has received a full Environment Agency (“EA”) permit.

Concurrent with this approval, IGES’s chosen supplier of plastic feedstock for the Northampton facility, Recyk, has completed the necessary upgrades to its facility to meet the quota and specifications for the 200TPD plant, which the Company plans on commissioning in the last quarter of 2020, with operations commencing shortly thereafter.

Under the terms of the feedstock agreement with RECYK, IGES will be paid a minimum of £25 per tonne of plastics delivered to the site, in addition to the revenue generated through the output of approximately 70 million litres of road ready diesel and petrol. The contract is conditional on IGES constructing and commissioning the planned Northampton facility.

Recyk has established the UK’s first category-3 licensed recycling plant. The 4-acre site in East Yorkshire is a state-of-the-art facility with an integrated functionality that takes, shreds,

treats, extrudes and pelletises a range of difficult end-of-life items including post-consumer materials, low density polyethylene film and other plastic packaging from food factories.

Commenting on the system, Rob Andrews, the managing director of Recyk said:

“It is our mission to take tougher end-of-life product streams and turn them into something really exciting. We have been working hard to ensure that our output will meet the requirements of IGES and are pleased that we have locked in the specifics. As part of this we have commissioned a new-state of the art facility that not only meets the IGES needs but promises to be zero waste from day one.

We embarked on a global search for world class waste handling technologies and the result isn't just a UK-first plant, but something which I hope will attract the attention of our peers internationally too. It's time that we better used technology to address the mounting environmental pressures we face.

We are very proud to be supplying plastic feedstock to the first UK IGES Plastic to Fuel plant in Northampton. The plant will convert the end of life waste plastics we provide back into various fuels and naphtha. The naphtha product will then be used as an input to make new plastic again. This is great for the UK environment and an important part of our contribution to the circular economy.”



Rob Andrews, Managing Director of Recyk, operating the UNTHA XR3000C mobil-e ultra-heavy-duty shredder, renowned the world over for its flexibility and chosen for its proven ability to handle an array of materials.

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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