ASX CODE (GPP)

ABN 22 000 002 111

ABOUT GREENPOWER

Greenpower Energy is a clean energy technology developer, and is currently progressing the development of 'zero carbon' processes for converting coal to transport fuels, which it can then apply to the company's own sizeable inferred resource of Victorian brown coal. Go to *greenpowerenergy.com.au*

CAPITAL STRUCTURE

- Shares on issue	92,466k
- Unlisted options	0.5m
As at 31 Dec 2015:	
- Cash	0.3m
- Shares in listed co	0.4m
- Exploration assets	1.3m

CONTACT US

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ASX RELEASE

GREENPOWER ENERGY LIMITED (ABN 22 000 002 111)

QUARTERLY REPORT 31 DECEMBER 2015

MINING PRODUCTION REPORT LISTING RULE 5.1

Greenpower Energy Limited (ASX: GPP) is not presently in production or development in any of its mining tenements.

MINING EXPLORATION REPORT LISTING RULE 5.2

VICTORIAN AREAS [EL4500, EL4860, EL4877 and EL5227]

Latrobe Valley, Victoria, Resources

EL4500, EL4877 and EL5227 cover lignite occurrences to the west of Moe Township. Previous exploration by other companies has shown substantial lignite tonnages in a discrete basin covered by EL4500 and EL4877 (western part). A small part of this basin is located within EL5210 a tenement owned by outside parties.

A second basin located to the west of this is covered entirely by EL5227.

Applications for renewals of EL 4877, EL 4500 and EL 5227 have now been made.

Coals to Liquids Projects, Latrobe Valley, Victoria

Thermaquatica 'OHD' Coal to Liquid Technology

In March 2013 the Company had signed a Memorandum of Understanding (MOU) with US-Thermaquatica Inc., to jointly test and develop the Oxidative Hydrothermal Dissolution (OHD) process for the conversion of coals to liquids, and in November 2013 an Agreement was signed to replace the MOU.

The arrangement allows Greenpower to receive an exclusive license to develop and apply the OHD process on a commercial scale within Australia and New Zealand in exchange for contributing USD $2m towards research on extraction of the products form the OHD liquid.

Thermaquatica OHD Coal to Liquid Technology (cont.)

OHD is a novel and environmentally friendly technology for the conversion of coal and other solid organic material into low molecular weight, water soluble products. Many of the initial products are potentially useful for producing polymers as well as other hydrocarbon based products. The process works by taking the initial macromolecular solid material such as coal and causing a reaction with small amounts of oxygen in high temperature, high pressure water.

Progress Report

A major part of the companies' technical input has been related to the development of the OHD process for transforming coal [and carbonaceous material generally] into useful products. At present the development of the process is proceeding at several levels:

Building the plant

The process developer, Thermaquatica Inc. is creating an integrated system which comprises the basic reactor and equipment needed to isolate and separate the individual output compounds. At an engineering scale this task is complete. Thermaquatica is carrying out the work at its laboratories in Carbondale, Illinois, USA under the supervision of its CTO [and process inventor] Professor Ken Anderson. Greenpower contributes technical advice in respect of the input material which is Victorian Brown Coal and is also the project's major funder. In September this year at a conference in Melbourne Professor Anderson presented a progress report on the process, summarized the process and presented an exposition on one of the major usage areas for the OHD output; viz the manufacture of affordable bio-degradable plastic.

Fig 1: Major components: 1. LHS: Process Demonstration Unit. 2. Centre Top: Primary Reverse Osmosis Unit.3. Centre Bottom: Secondary Unit; Reverse Osmosis/Solvent Exchange. 4. RHS: Distillation Unit.

Fig 2: Process Flow; Diagrammatic:

Agricultural Bio stimulants

The OHD product, as it comes from the basic reactor is a solution of low molecular weight organic compounds. At this stage it is approximately 1.5% by wt. A simple reverse osmosis processing step is sufficient to take it up to 6% by wt. In this form it resembles a fulvic acid solution. At present Monash University researchers are working on developing ways of using this dilute solution as an agricultural bio stimulant. [Fulvic acid [aka fulvates] are used to improve the soil and increase a plants efficacy for fertilizer uptake. In some instances it has been possible to reduce application rates of conventional fertilizer by up to 30%.] The OHD process when applied to Victorian Brown Coal produces a fulvic acid analogue at a cost which is considerably less expensive than from conventional sources. The Monash trial will be completed by mid-May 2016.

Biodiesel

The OHD liquor in the form in which it emerges from the reactor is bio-active. This manifests itself as an aggregation of mould. The OHD liquor is a ready supply of carbon for mould growing bacteria. No quantitative controlled work has yet been carried out; however it has been observed that the mould contains lipids. Research and development work by Monash to determine optimum mould growing conditions is planned for the second half of 2016.

Oxygenates: The OHD process produces a wide range of oxygenated organic compounds and some have use as an additive for fuels-as an octane enhancer. Work on identifying the appropriate chemicals is planned for Q1 2016.

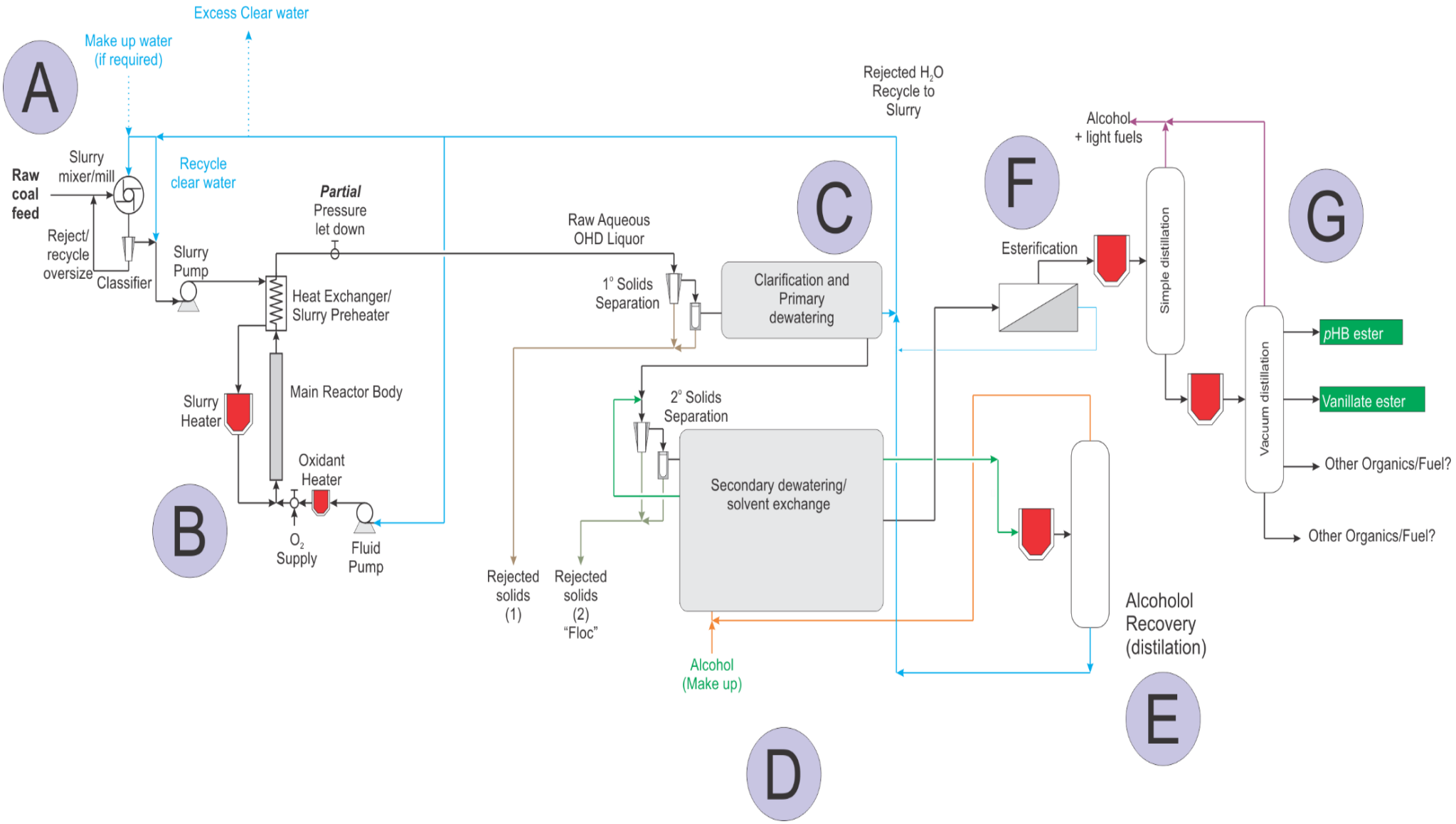
Compliance Statement

The technical information quoted in this announcement has been compiled by Mr Alan Flavelle and geoscientists under his supervision. Mr Flavelle is a Fellow of the Australasian Institute of Mining and Metallurgy and is a member of the Society of Petroleum Engineers. Mr Flavelle has consented to the inclusion in this report of the matters based on the information in the form and context in which it appears.

Fig 1:


All major unit-ops
demonstrated at engineering
scale
Thermaquatica

Fig 2:


A
Excess Clear water
Make up water
(if required)
Rejected H_2O
Recycle to
Slurry
Alcohol
+ light fuels
Slurry
mixer/mill
Raw
coal
feed
Recycle
clear water
Partial
Pressure
let down
C
F
G
Raw Aqueous
OHD Liquor
Esterification
Reject/
recycle
oversize
Classifier
Slurry
Pump
Heat Exchanger/
Slurry Preheater
1° Solids
Separation
Clarification and
Primary
dewatering
Simple distillation
Vacuum distillation
pHB ester
Vanillate ester
Other Organics/Fuel?
Other Organics/Fuel?
Slurry
Heater
Main Reactor Body
2° Solids
Separation
Oxidant
Heater
Secondary dewatering/
solvent exchange
B
O_2
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Pump
Rejected
solids
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Rejected
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(2)
"Floc"
Alcohol
(Make up)
Alcoholol
Recovery
(distilation)
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