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GREENSKY

Sustainable Aviation Fuel & Clean Power

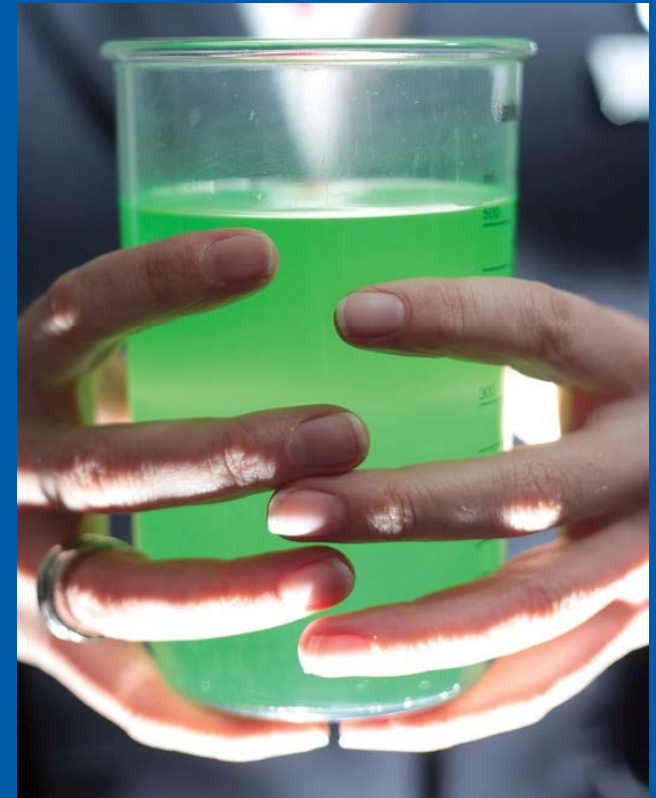
from Recycling



Working with the Mayor of London Food Waste to Fuel Alliance.

Introductions

- The Solena/BA partnership.
- GreenSky project team.
- The project vision.



Background – the Challenge

- Jet fuel which is refined from fossil based sources, predominantly crude oil.
- The consumption of such fossil fuels adds to the CO₂ in the atmosphere and therefore contributes to global warming.
- As a responsible airline, BA wishes to adopt more sustainable alternatives.
- BA and the industry have targeted a 50% reduction on 2005 emissions by 2050.



Background – the Solution

- BA believes there is great potential in bio fuel technology to bring more sustainable fuels into use in commercial aviation.
- This project is about making it happen through use of a different, innovative procurement approach.
- BA has partnered with Solena Group Inc., a US bio fuel technology firm, with the aim of developing a commercial scale bio fuel plant in the UK by 2014.



Environmental Project Vision

- Europe's first landmark advanced technology Bio jet fuel plant.
- Turning waste sources:
 - Household, commercial & industrial
 - Food industry
 - Agriculture
 - Forestry
- Into renewable:
 - Clean fuels – core benefit
 - Clean electricity
 - Clean heat
- Using an efficient plant producing no harmful waste or emissions.



Benefits to Airport Local Air Quality

- Produces bio-jet fuel that burns cleaner than crude oil based jet fuel resulting in a cleaner local airport environment:
 - Zero sulphur – no SOX improves local air quality.
 - No soot particulates/contaminants.
 - Delivery trucks will run on sustainable fuel.
- Potential for BA operations at London City Airport to be completely sustainable – a world's first.



Advantages – National/Global

- Technology offers lifecycle greenhouse gas savings of up to 95%* in production and use of jet fuels.
- Supports vision for aviation to become more sustainable – net 145,000+ tonnes pa of reduced CO2.
- Waste feedstock does not compete for agricultural land or water use.
- Supports national targets on reducing landfill.
- Eliminates landfill methane production – 21 times more global warming than CO2.
- Electricity generated qualifies for up to the maximum of 2 Renewable Obligation Certificates (ROC).
- Also produces renewable naphtha for use in petrochemicals or as a blend component for petrol.
- Improves UK energy supply resilience.



* UK Committee on Climate Change (CCC) “Aviation Report” Dec 2009.

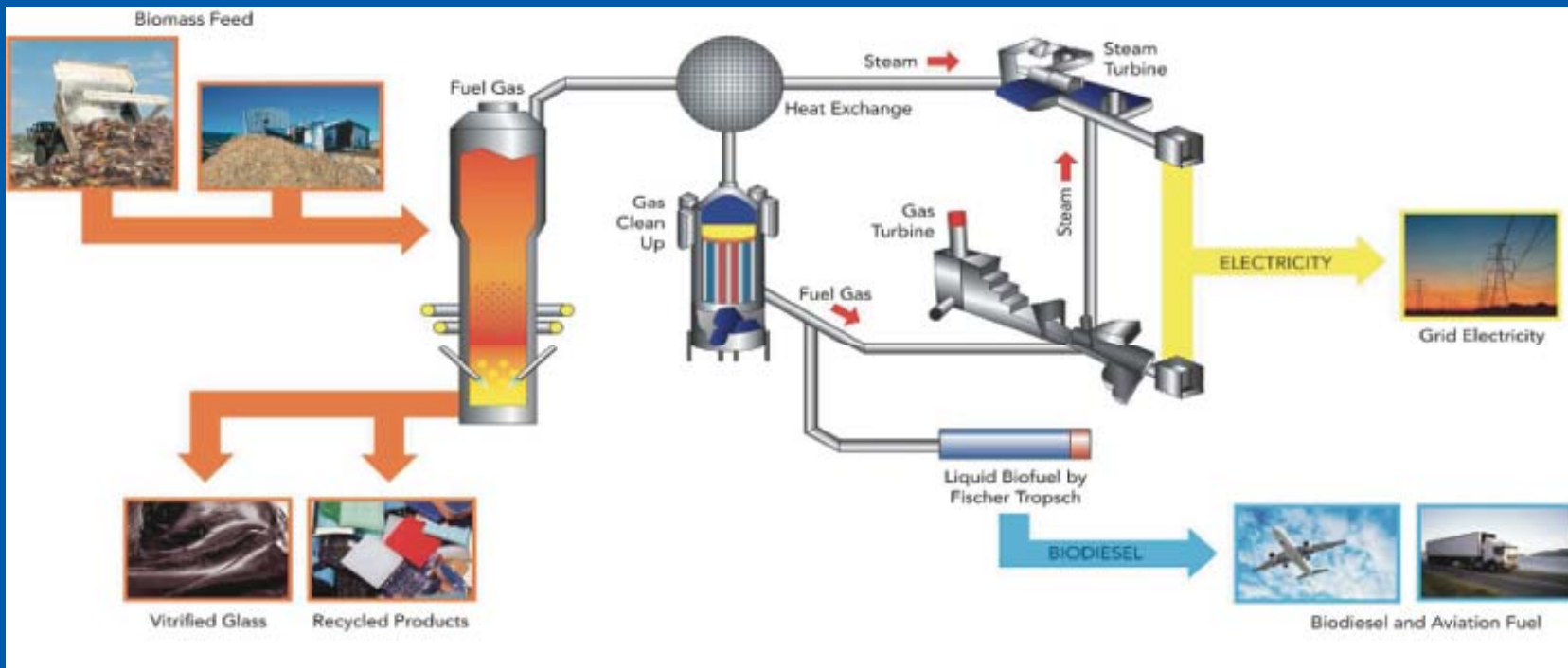
Features of the Bio Plant

- Converts any carbon based feedstock material into useable transportation fuels.
- No ash – only waste output is hard inert slag used as construction materials.
- Consumes 500,000 tonnes pa of waste destined for landfill.
- Advanced gasification processing of the waste (not incineration).
- Proven Fischer-Tropsch (FT) technology converts resultant gas to liquid fuels.
- Potential for heat output for district/industrial consumption and steam to generate green electricity.
- No toxic emissions to air, land or water.



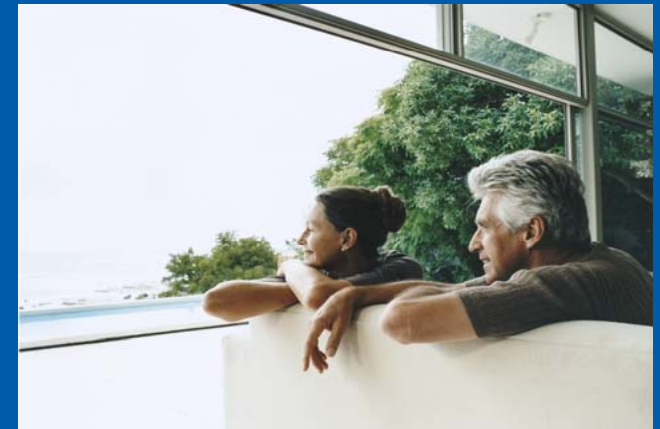
Solena Process

from Recycling



Benefits to Local Communities

- Provides clean renewable alternative to landfill, avoids landfill tax and reduces disposal costs and cuts the cost of local authority waste management.
- Also provides electricity from renewable source.
- Potential for district heating.
- Employs 1000 staff during construction.
- Employs 200 staff during continuous operations.
- Exemplar self-sufficient plant – carbon neutral in both construction and operation.
- Plant produces no toxic emissions.
- Relatively small land footprint.



Project Delivery

- Land Site Assembly East London – Ongoing now.
- Planning – Pre Application work ongoing, Planning Agreement targeted end of 2011.
- Environmental Permitting - Ongoing discussions in place.
- Feedstock Supply Agreements – Ongoing discussions with suppliers.
- Detailed Design and Procurement 2011 to early 2012.
- Construction and Plant Commissioning 2012 – 2014.
- Operational 2014.



Thank you for listening.

Any questions?