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5th Smart Grids & Cleanpower Conference

5 June 2013, Cambridge

The Any Fuel Engine

Transforming BioPower

No electricity for 1.3 billion people

- 1.3 billion people still have no access to electricity
- Mainly sub-Saharan Africa, South Asia and Indonesia



Why the existing options don't work

- Rural grid connections are unaffordable for most communities due to low energy use,
- Long life (>5 years) battery storage costs > \$2/W-h to the customer,
- Biogas corrodes internal combustion engines, shortening engine life to ~ 3000 hours,
- Syngas-fueled engines suffer from pre-ignition, tar build-up and short life also.

The Any Fuel Engine

- The Any Fuel Engine uses any biofuels
 - Poor villages have access to biofuels
- The Any Fuel Engine is designed for long life (100,000 hours)
 - Low stress, easy clean, easy maintenance
- The Any Fuel Engine produces power on demand
 - no need for batteries
- One small engine will power a village or a mobile phone transmitter
- Price is ~£1.50/We

Solutions

- Solutions have been found for all the engine contaminants: ash, cinders, soot, tar, acids,
- We have solutions for all the drive train,
- We have modelled the efficiency:
25% – 40% depending on torque setting,
- We have engine power range from
4 kW – 50 kW,
- Longevity: low stress, low friction, low corrosion,
- Proprietary IP.

Market potential

Up to 400 GW of engine capacity, or
20 GW per year, or
£20 bn /y.



UK applications also

- Farm power and heat
- Residential power and heat
- School power and heat
- SME power and heat





We have started phase 1 (Technology Demonstrator) and are undertaking the design, testing key systems and testing the market.

We are looking for financing – for more information contact:

Graham Ford gf.mansion@gmail.com