KEW Technology Ltd

3rd Generation Gasification

...a world beyond fossil fuels









Technology Gap









- Acceleration in demand for sustainable energy
- Increasing global waste problem
 - Gap for clean, efficient, cost-effective
 conversion technology
 - Crux is the production of consistent
 clean H₂ rich gas from varying waste
 input

energy

institute

technologies

High Efficiency
 Waste Gasification
 Project

Market Context

Large scale projects cannot tackle the Waste problem

Demand for Sustainable Energy continues to grow

- Shortage of Sustainable
 Aviation Fuel
- Lack of distributed power in Urban areas; EV charging challenge

Meanwhile waste problems now coming to public attention.

Recent further evidence that large scale projects cannot deliver.

King's Lynn incinerator: Plans for £500m scheme abandoned

🕚 7 April 2014

🔰 🗹 < Share

Final bill for scrapping Norfolk incinerator revealed

Dan Grimmer dan.grimmer@archant.co.uk @dangrimmer24 | PUBLISHED: 11:06 01 December 2014 | UPDATED: 11:06 01 December 2014

The final compensation payment for cancelling Norfolk's controversial incinerator contract has been paid - with County Hall having lost \pounds 33.7m because of the saga.

Call for independent inquiry into Javelin Park contract

7 January 2019 by Luke Walsh

UK: Authority behind EfW plant accused of signing off 30% increase in costs of development without consulting elected councillors

💾 11 JUNE 2019

💉 by Caelia Quinault

Renewi provides for 'termination' of Derby contract

Renewi PIc has provided for the "complete termination" of its Derby PPP contract following a delay to the opening of the Sinfin gasification plant by its partner Interserve.

💾 12 APRIL 2019

💉 by Elizabeth Slow

Banks asked to intervene over Sinfin EfW plant

Derbyshire and Derby councils have called for financial backers of the Sinfin waste treatment centre to intervene to 'secure the future' of the delayed facility.

The plant, which was due to open in 2017, is being built on the councils' behalf by Resource Recovery Solutions (Derbyshire) Ltd (RRS) – a partnership between national construction firm, Interserve, and waste management company Renewi.

Hull power plant contractors sacked amid 'delays' to £200m project

() 5 March 2019





KEW Vision: A world beyond fossil fuels

Clean, Compact Plants converting Wastes to Energy products

KEW's vision is to play a substantive role in the sustainable energy revolution by enabling the high-efficiency conversion of waste and biomass into valuable energy products, whilst utilising waste heat.

The commercial roll-out is built on **Flexibility** – which allows the same modules to be sold into multiple markets and applications.

Economies of Scale through serial, lean manufacturing.

Licensing opportunities in selected jurisdictions



Flexibility in Feedstock to accept a wide range of wastes including premium gate fee material.









Vision Summary

Kew's Game-changing Technology enables:

- 3rd Generation Waste
 Gasification
- Conversion of all Wastes and
 Biomass into H₂ rich gas
- Production of range of Energy
 Products (power, heat, H₂,
 fuels)
- **Clean**
- **Compact**
- Factory built Modules
- Ongoing CAPEX reduction
- Swift Project Delivery
- Low Project Risk

KEW Vision: To simultaneously address Sustainable Energy

Demand and Global Waste Problems





...a world beyond fossil fuels



Sustainable Energy Centre

First continuous operation high-efficiency waste to power and heat plant.

- 15,000 tonnes p.a. waste
- 2 MW electrical output
- Heat to local users
- Centre of excellence: addition of other technology demonstrations:
- Fuels
- Chemicals
- H2
- Hydroponics

Commercial Demonstrator





kew)projects











GC-FID & Syngas Analyser Room











Scrubber







Hot Oil Pump System



Flare









Flare





We are working with:



Department for Business, Energy & Industrial Strategy

Hydrogen Supply

Department for Transport

Future Fuels for Flight and Freight Sustainable energy for sub-Saharan Africa

Innovate UK

Department

for International

Development

Participating in Midlands Capital and South Wales Industrial Cluster (SWIC)

Major industrial partners to decarbonise foundation industries and agriculture

Partnerships & Team

Kew team

Highly experienced engineering & project team of 15 including the three Founder Directors:

- Dr Kamal Kalsi, CEO
 - >12 yrs. engineering and entrepreneurialexperience
- Kevin Chown, COO

>20 yrs. experience in product development & lean manufacturing

• Hans Månsson, CTO

>20 yrs. experience in pressurised gasification systems and power plants



KEW

- Unique technology
- Virtually unlimited
 addressable market
- Conversion of wide range of
 wastes into energy products
- Commercial demonstrator in place -> route to financial self-sufficiency
- Pressurised -> compact
 standard 2MW modules
- Clean product gas -> flexible outputs
- Site 2 in preparation
- Raising funds to consolidate demonstration of key technical differentiation step

Thank you for listening



Enabling the circular economy through revolutionary technology providing sustainable energy







THANK YOU FOR YOUR TIME

