



Secured Renewable Energy Bonds

Offered by:
Renewable Energy Waste Solutions UK plc (REWS)



Too much waste.
Not enough renewable energy.
What if we could turn one into the other?

About REWS

Renewable Energy Waste Solutions UK plc (REWS) is dedicated to the development and operation of high-tech waste-to-energy facilities across the UK. These initiatives divert thousands of tonnes of waste from landfill and turn it into renewable fuels, helping supply UK industry with more sustainable energy sources.

Our operation is founded on leading-edge technology, currently under patent application, which is greener and more efficient than that used elsewhere in the market. Its simple, flexible design allows us to rapidly scale up and diversify operations in response to shifting market demand.

We acquire and develop sites in partnership with established recycling centres and waste treatment companies. This allows us to roll out new projects quickly and cost-effectively, with minimal capital costs and infrastructure development.

To help finance our projects, we're raising money through a series of bond issuances. These secured bonds give investors access to green energy opportunities not normally available to the market. Bondholders will be investing alongside us as we market this exciting new technology.

Our vision is to be a global producer of sustainable renewable fuels sourced from waste. We're proud to be part of the solution to two of the world's greatest environmental challenges: the global waste management crisis and the essential shift to renewable energy.





We're offering a solution to two of the world's greatest environmental challenges – the global waste management crisis and the essential shift to renewable energy.

An aerial photograph of an industrial waste-to-energy facility. The scene shows a large paved area with various pieces of equipment, including trucks, a forklift, and a green waste management vehicle. There are several buildings, some with corrugated metal roofs, and a green fence in the background. The foreground is dominated by a large, textured, greenish-grey surface, possibly a roof or a large container. A large orange rectangular overlay covers the left and center portions of the image, containing white and blue text.

Our Waste-to-Energy Business

Innovative technology

Our unique pyrolysis (high-temperature thermal treatment) system is cleaner, more efficient and more profitable than other technologies in the market.

Highly favourable market

We supply fuels to industries hungry for renewables and incentivised by UK Government initiatives to seek more sustainable energy sources.

Multiple income streams

Our operations benefit from three sources of income, including waste delivery gate fees, product sales and eligibility for UK Government subsidies.

Flexible applications

Our plants can process a range of waste types such as municipal, industrial and medical waste, and output fuels including solid fuel, bio-coal, liquid gas and syngas.



REWS

Secured Renewable Energy Bonds

- Asset-backed security
- Fully regulated security trustee
- Attractive fixed-rate returns
- Two and four year bond options
- Biannual income or deferred payment
- Green investment in fast-growing market
- Highly experienced team
- Sector backed by Governmental Renewables Obligation

Environmental Challenges

As a global society we're continuing to live unsustainably. Every day we produce millions of tonnes of waste, much of it still not recyclable. We're running out of places to dump our waste, and the cost of dealing with it is ballooning.

The amount of waste we generate continues to rise due to population growth and rising living standards around the world. At the same time the world's energy demands are growing, while the increasingly serious consequences of fossil fuel use are becoming ever more apparent.

While these circumstances pose grave threats to the environment, they also present significant opportunities to companies innovating in the waste management and renewable energy sectors.





- Globally we produce more than 3.5 million tonnes of solid waste per day.
- The World Bank projects this to increase to 6 million tonnes per day by 2025.
- The waste from cities alone would fill a line of rubbish trucks 5,000km long every day.
- Of the 1.9 billion tonnes collected annually, 70% is taken to landfills and dumps.
- In the UK our annual waste generation is over 250 million tonnes a year.
- Landfill space in the UK is running out and costs of disposal are rising steeply.
- Fly-tipping costs councils in England and Wales £50 million a year.

Landfill

Waste is mostly collected and disposed of by local towns and boroughs. In the UK around 40% of municipal solid waste collected is taken to landfills and dumps. Around 44% of this is estimated to come from the construction industry.

Waste in landfill breaks down to produce greenhouse gases and leachate, a liquid pollutant that threatens soil, surface water and ground water if not correctly treated. As the costs of landfill disposal increase, there has been a corresponding increase in illegal fly-tipping, which poses its own environmental risks and costs public bodies millions of pounds in clean-up efforts.

Despite positive trends towards recycling, the UK's Department for Environment, Food & Rural Affairs (DEFRA) has stated that the proportion of waste sent to landfill in the UK remains excessive. It is now widely agreed that reliance on landfill is no longer an appropriate or sustainable option, and companies and local authorities are seeking alternatives.





Greenhouse Gas Fracking

There has been a significant increase in global carbon emissions since 1900, rising rapidly from the 1950s onwards. Since 1970, carbon dioxide (CO₂) emissions have increased by around 90%, with emissions from fossil fuel combustion and industrial processes contributing approximately 80% of the total greenhouse gas increase.

In 2010, 25% of global greenhouse emissions resulted from burning coal, natural gas and oil for the production of electricity. Fossil fuel and industrial processes account for 65% of CO₂ in the atmosphere, where it has grave implications for global warming and ocean acidification. It is imperative that sustainable alternatives to fossil fuels are developed and rolled out at scale.

In a bid to meet rising fuel demand and improve the country's energy security, the UK Government has granted over 100 licences to companies wanting to explore for natural gas. Large underground reserves of shale gas have been identified across Northern England, where they may be accessed via techniques such as hydraulic fracturing, or 'fracking'.

Fracking is the process of injecting pressurised water, sand and chemicals into rock formations, causing fractures where natural gas can be extracted. It is a highly controversial process, believed to pose environmental risks ranging from water contamination to earthquakes. Legal battles continue as devolved governments, local authorities and residents oppose fracking in the region.

Meanwhile, clean, high-quality synthesis gas, which can be produced from waste, presents a safe, sustainable, local and economically viable alternative to natural gas.

Waste-to-Energy: A Tidy Solution

Waste to energy is the process of generating energy (electricity and/or heat) from the treatment of waste. Municipal and industrial waste typically consists of waste paper, cardboard, wood, sawdust and non-recyclable plastic. These contain large amounts of solid-state energy which can be recovered and used as fuel.

The most common way of doing this in the past has been to burn the waste. New thermal technologies, however, are able to produce energy from waste without direct combustion. High temperatures cause the decomposition of the materials into combustible solid, liquid and gaseous fuels. These techniques yield more potential power per tonne of waste than simple burning and produce fewer harmful emissions.

The carbon dioxide emissions from these thermal processes have significantly less global warming potential than the methane emitted by equivalent volumes of waste in landfill. In addition, the residues are captured in usable forms that help meet local energy needs and minimise the demand for virgin resources.

Unlike some waste-to-energy operations, REWS's plants are fully compatible with recycling efforts. All reusable materials are first recovered by our waste management partners.

There will be no shortage of waste in the foreseeable future. REWS is committed to the production of high-quality, sustainable fuels while helping deal with the waste management crisis. Our mission is to help reduce the UK's reliance on natural gas imports and fossil fuels and to limit the need for future fracking projects.





The waste produced over generations contains large amounts of solid-state energy, which can be recovered and used as fuel.

The Market: Two Parts to the Equation

Waste management costs

Landfill used to be considered a cheap option for waste disposal in the UK, with no shortage of space for dumping and burying waste. In the last 25 years, however, the number of landfill sites in the country has halved. At the same time the UK is maintaining levels of waste to landfill that are on average 12% higher than other European countries.

In a bid to change this, the UK Government has been steadily increasing landfill taxes, which now sit at a hefty £80 per tonne and are locked in at that rate until 2020. Gate fees at landfill sites have also risen and are now significantly higher than those at material recycling facilities.

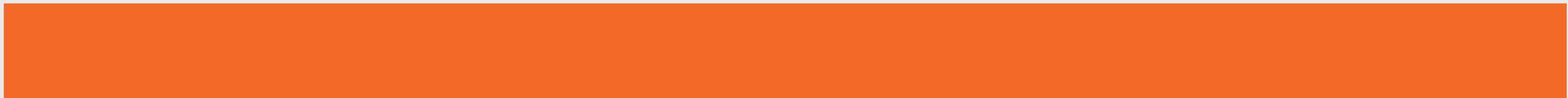
As landfilling becomes increasingly unviable, companies and local authorities are seeking more sustainable solutions for waste disposal, creating a favourable market for the development of recycling and energy recovery plants.

An incentivised market

The UK is committed to meeting ambitious carbon reduction targets. It remains currently bound by the Renewable Energy Directive (2009/28/EC) to generate 15% of the nation's energy requirements from renewable energy sources by 2020. Longer-term the UK remains bound by its own Climate Change Act 2008, which imposes an 80% reduction in carbon emissions on 1990 levels by 2050, a target even higher than that required by the EU.

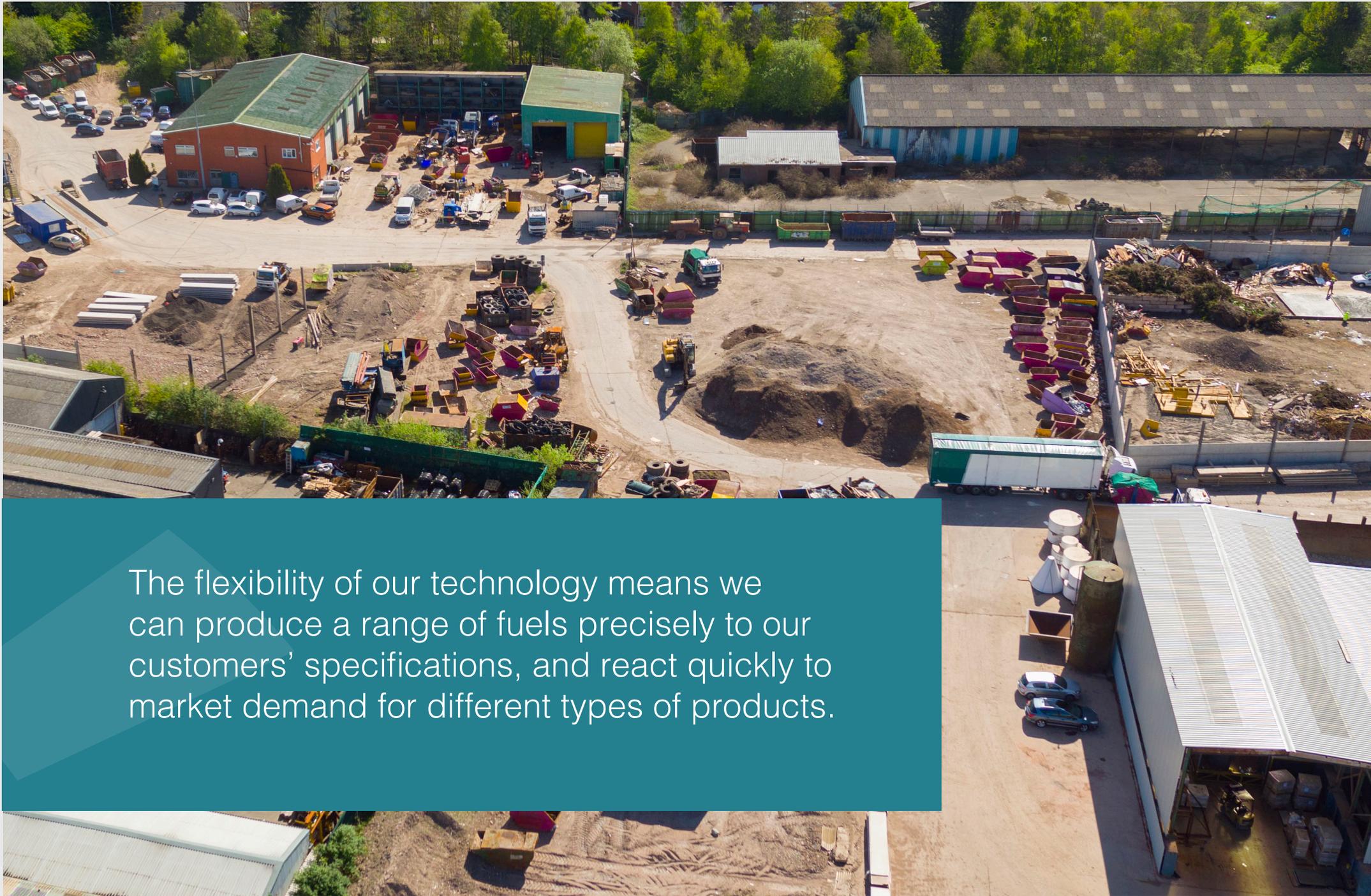
To meet these targets, the Government has in place a range of incentive schemes, subsidies and grants designed to nurture renewable energy production and to encourage companies to reduce emissions. Companies using renewable fuels can benefit from Renewable Energy Certificates (RECs), Renewable Obligation Certificates (ROCs) and carbon credits.

As a result the market in the UK for renewable fuel products is extremely strong, particularly in the cement and power sectors and other heavy industry. Demand at present significantly outstrips supply.





As landfilling becomes increasingly unviable, companies and local authorities are seeking more sustainable solutions for waste disposal, creating a favourable market for the development of recycling and energy recovery plants.



The flexibility of our technology means we can produce a range of fuels precisely to our customers' specifications, and react quickly to market demand for different types of products.

Our Business Model

REWS's unique business model sees us paid a gate fee to take other companies' waste, which we then turn into valuable renewable fuel products to onsell. Our operations are designed to profit from multiple income streams and to take advantage of a strong and growing renewables market, backed by long-term Government incentive schemes.

Efficient and responsive

Our plants are powered by their own feedstock, making them 100% renewable and far more profitable than other businesses attempting this technology, who rely on costly propane gas or consuming their own syngas yield.

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Key partnerships

We partner with recycling centres and waste treatment companies to keep development and transport costs low, and productivity and quality high. We benefit from our partners' existing infrastructure and their highly specialised waste management expertise. Our partners are contracted to pay us waste delivery gate fees and to ensure a continuous supply of feedstock prepared and optimised for our needs.

Expanding portfolio

Our near-term focus is the building of high-tech waste-to-energy plants on multiple sites across the UK. The expertise in our team and the strategic partnerships we build allow us to roll out new facilities rapidly and cost-efficiently. This means we're ideally placed to capitalise on significant market advantages as early adopters of newly viable green technology.

For details of our current projects, visit www.rewsuk.com or contact us at ready to invest@rewsuk.com



Three Sources of Income

Gate fees

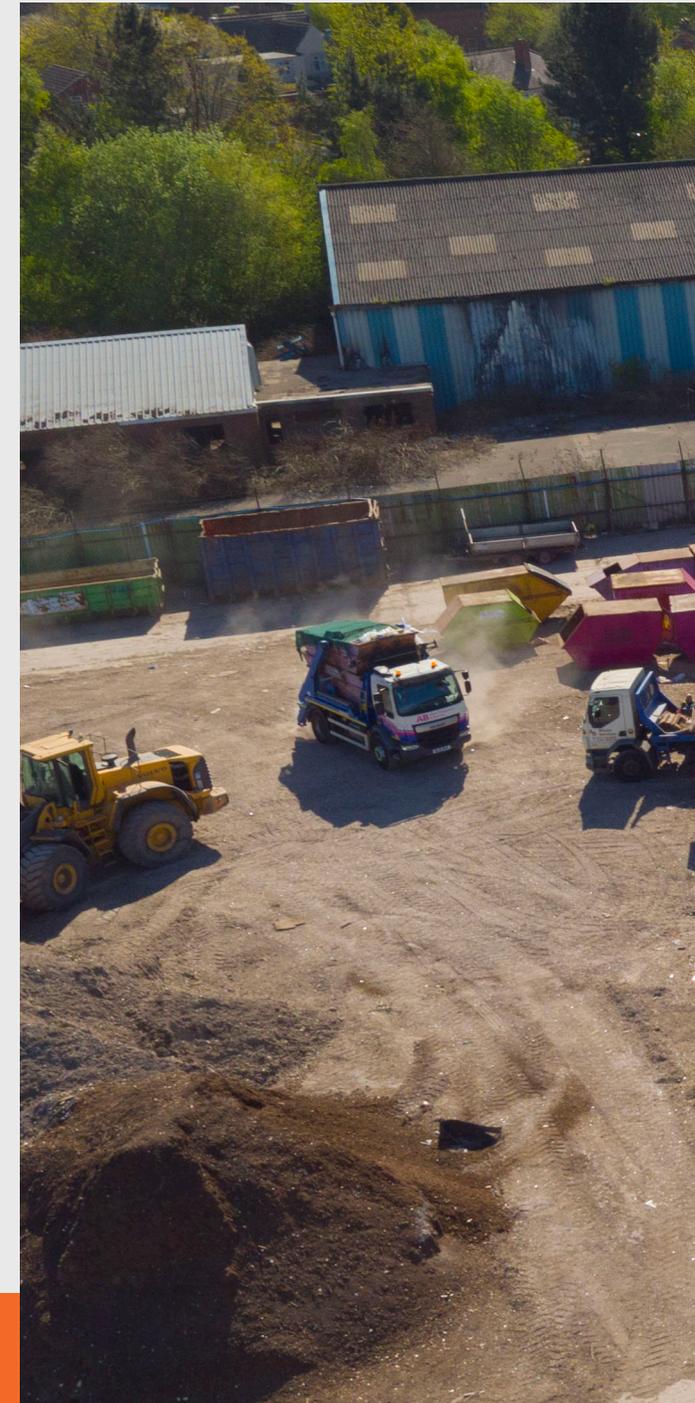
We have contracts with companies who pay us high fixed fees per tonne to take their non-recyclable waste.

Fuel sales

We sell the renewable fuel products we make, including solid fuel, bio-coal and synthesis gas, for industrial use.

Government incentives

As users and producers of renewables, we qualify for long-term subsidies, grants and credits from the UK Government.





Our Technology

Smart Design

Our system has a relatively low capital build cost and is efficient to run, ensuring a higher net energy yield and greater profitability.

- Simple design with no unnecessary hardware and parts;
- 80% of the components have at least 50 years' proven industrial use;
- Low lifetime maintenance costs and maximum operational hours; and
- Safe technology with low operating pressures.

Low environmental impact

A low profile and small footprint make it easy and inexpensive to locate plants around existing infrastructure and in more planning-sensitive areas.

- 100% renewable, powered by the system's own feedstock;
- Quiet, odourless operation;
- Emissions as clean or cleaner than those from burning natural gas; and
- No by-products requiring disposal, qualifying for end-of-waste certification.

Flexible usage

Our unique technology incorporates advanced features for the control of temperature and feedstock dwell time.

- Flexibility to use different feedstocks, including hazardous and toxic materials;
- Ability to deliver a range of products tailored to customer specifications;
- Output capabilities include solid fuel, bio-coal, liquid gas and syngas; and
- Modular design and low capital outlay allows for ready scaling.

Integrated approach

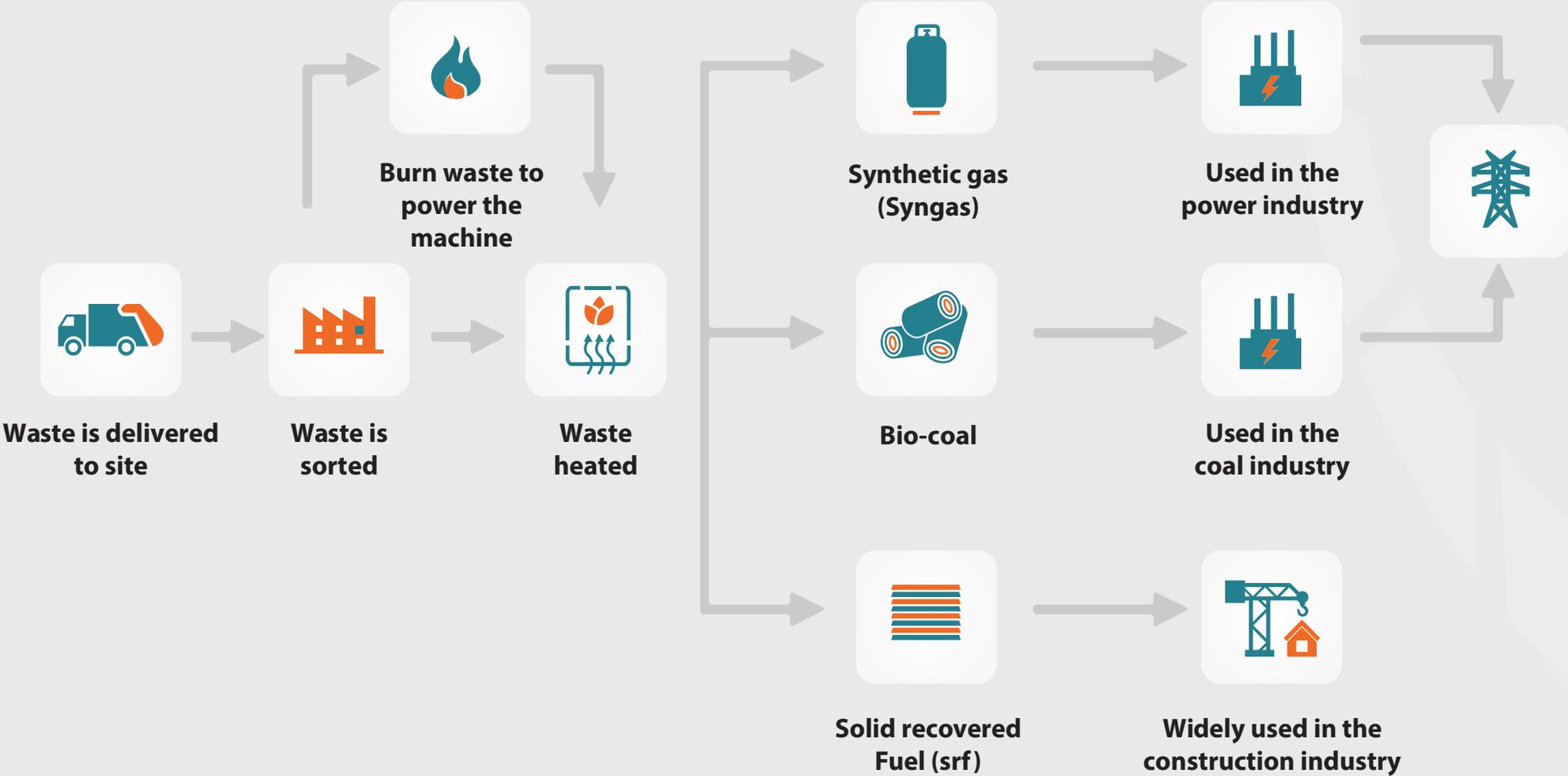
REWS is responsible for the entire process ranging from design, finance, construction to long-term operation and maintenance of the plant, which includes:

- Critical operational considerations - taken into account at the design and construction phases;
- Overall life cycle - costing approach to maximise cash flows over the long-term duration of the machinery; and
- Increased safety and efficiency - seamless transition between construction and operation phases



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How It Works



Types of Fuel Produced



Solid recovered fuel (SRF) is in high demand from the cement industry. It is produced through a thermal drying process from refuse-derived feedstock (RDF), a mix of non-recyclable waste paper, cardboard, wood and plastic. Reducing the moisture content of the feedstock converts it to a more valuable, higher calorific-value fuel source that does not produce steam when used.



Bio-coal is highly sought after in the power industry, where it is mixed with coal to reduce CO₂ emissions. It is produced from biomass (waste wood and sawdust from the timber and construction industries) through a thermal treatment process called torrefaction. This renewable fuel is dry, stable and grindable and has a similar calorific value to coal.



Syngas is a clean fuel gas comprised largely of hydrogen, carbon monoxide and methane. It is produced from mixed municipal waste through a high-temperature pyrolysis process. RE-WS's plants are designed to produce syngas as well as solid fuels without modification, positioning us to take advantage of the rapidly emerging syngas market.

Our Team

Dennis Ng Director

Professor Dennis Ng is Managing Director and Principal of Hong Kong-based global property services companies Epic Asset Management Ltd and Ingenious Investments. Both companies specialise in sourcing, sales and management of real estate, green energy and alternative investment projects.

Dennis has more than 25 years' experience acquiring and managing highly successful residential and commercial portfolios for family businesses, high net worth individuals and large corporates worldwide. Since 2008 he has been involved in infrastructure and renewable energy investment projects including hardware acquisition, project sourcing and equity funding across multiple countries in Europe and Asia.

His professional success builds on a brilliant academic career in business, entrepreneurship and organisational behaviour at Imperial College and University College London. He has been a regular media contributor and commentator on real estate trends in Europe. At REWS Dennis is responsible for business strategy, investment advisory and asset acquisition and management.

Bill McClintock Chairman & Director

Bill is a leading figure in the UK property market, with over 50 years' experience in estate agency. He has held senior roles, directorships and major shareholdings with top companies including Royal Life Estates, Cornerstone Estate Agencies and Hamptons. As Hamptons' International Development Director he had specific responsibility for business generated in the Asia-Pacific market.

Bill has had a long-standing commitment to raising standards in the profession. He was Chairman of The Property Ombudsman for 11 years and is a founder-director of The Guild of Professional Estate Agents. He is a Fellow of both the Royal Institution of Chartered Surveyors (RICS) and the National Association of Estate Agents.

In recent years Bill has been involved with a number of successful start-up companies in the property sector. He oversees all aspects of property and business development at REWS.

Matt Donegan
Director

As Head Engineer, Matt oversees the project build process. He forms part of our highly skilled technical team. Matt Donegan and Ben Harris (below) were the first to design, build and operate a fully functional commercial-sized pyrolysis plant that could pass an end-of-waste test, meeting or surpassing all Government emissions and product requirements. After more than 10 years at the forefront of the pyrolysis industry, they have unrivalled knowledge in the fields of plant design, manufacture and operation. As a team they were influential in the design and manufacture of the innovative pyrolysis technology, an adaptation of which is used in REWS's waste-to-energy systems.

Ben Harris
Director

Ben Harris began his career at First London Environmental, together with Matt Donegan (above), where he was responsible for the running of waste transfer stations processing multiple types of refuse. As Head Operator, Ben is responsible for the fabrication and installation of key components, plant commissioning and understanding how to maximise output. Pyrolysis is still recognised as the most successful technology of its kind developed to date. In 2007 they moved into renewable energy at Stein Pyrolysis, where they gained valuable experience in the manufacture and operation of pyrolysis units.

Key Partners

A.B. WASTE MANAGEMENT LTD

AB Waste Management Ltd (AB) is one of the largest waste management companies in the midlands processing over 200,000 tons of waste yearly. AB is a waste supplier and Partner in Tipton and Walsall renewable sites.



OFGEM regulates all energy bodies across the UK. REWS will initially be selling renewable fuels to companies that benefit from their subsidies. REWS in the future will be generating electricity as well which will mean it will be entitled to incentives provided by OFGEM.



Jardine Lloyd Thompson (“JLT”) act as our Insurance Brokers. JLT was created in 1997 and today, is one of the world’s leading providers of insurance. JLT shares the same environmental values, introducing the Energy Saving Opportunities Scheme (ESOS) in 2015 whilst remaining one of the top Insurance Brokers in the world.



Wilson Wright LLP
Wilson Wright act as our accountants. They are chartered accountants who have been in business since 1893. They act for UK and international clients across a wide range of industries and truly display their dedication to high quality professional service.

K&L GATES

K&L Gates
K&L Gates is in the top sixteen world-wide law firms and maintains a renowned reputation among all its clients for its impeccable services. For further information, please visit their website. K&L Gates are tasked by REWS to structure our bonds whilst also giving advice on our financial promotion activities.



Audit, Tax and Advisory services.
As our auditors, KPMG ensures we get the assurances our organisation needs, and identifies new opportunities through their internal audit process.



Linear Investments Ltd (“Linear”) act as our security trustee. Linear is authorised and regulated in the United Kingdom by the Financial Conduct Authority (“FCA”) FRN 537389.



A commercial law firm renowned for our work with creative, innovative & brand-focused businesses. Lewis Silkin provides us with legal advice on a range of commercial matters. For further information, please visit their website www.lewissilkin.com.



Sterlings are fully ICAEW qualified accountants. They have provided us with an independent valuation of our first site – Tipton. This information is included in our prospectus. More extensive documentation on these valuations can be provided to anyone interested. To find out more, visit their website www.sterlings.co.uk/



SocFin offering fair, inclusive and responsible alternative banking solutions to businesses. They strive to make these payments as simple and cost effective as possible and offer REWS payment solutions for the collection of our investment funds. This service is a great benefit to REWS especially as it actioned through a FCA regulated company [/www.socfin.co.uk](http://www.socfin.co.uk).



REWS secured renewable energy bonds

Our bonds are available for a two- or four-year term, with a minimum investment of £5000. Highly favourable market conditions, plus UK Government backing, allow us to structure our bonds as high-yield investments.

Your money goes directly into green energy projects, secured against our company assets. You'll be investing alongside us in projects backed by strong expertise in investment, property, waste management and renewable energy technology.

Two-year bonds

Biannual payment option

8%

Fixed rate

Income paid 6 monthly
Capital returned after 2 years

Deferred payment option

9%

Fixed rate

Compounded income paid in lump sum at the end
Capital returned after 2 years

High net worth investors

10%

Fixed Rate

For investments over £100,000
Income paid 6 monthly
Capital returned after 2 years

Four-year bonds

Biannual payment option

10%

Fixed rate

Income paid 6 monthly
Capital returned after 4 years

Deferred payment option

11%

Fixed rate

Compounded income paid in lump sum at the end
Capital returned after 4 years

High net worth investors

12%

Fixed Rate

For investments over £100,000
Income paid 6 monthly
Capital returned after 4 years

Peace of Mind

Security

REWS's secured bonds give investors First Legal Charge over the company's assets. If the company were to default, our investors will be first in line for repayment following the sale of our assets. This is comparable to the security a homeowner gives a bank in the case of a home loan. In the event the borrower can't repay the loan, the bank has a legal right to the proceeds of the property.

Security trustee

A security trustee is an independent party who holds security interests in trust for creditors. The trustee has the legal power and duty to manage those interests for the benefit of creditors, in this case, bondholders. REWS has appointed as its security trustee Linear Investments Ltd ("Linear") act as our security trustees. Linear is authorised and regulated in the United Kingdom by the Financial Conduct Authority ("FCA") FRN 537389.

Insurance

The business has directors and office insurance. It also has in place construction insurance to cover the development of the site. Once complete the site will acquire full insurance which will cover the full operations of the plant.

Bonds: the basics

A bond is a form of loan from an investor to a company. The company pays interest on the loan in the form of fixed regular payments, and returns the principal at the end of the loan period.

A company borrowing money directly from its investors can usually pay a higher interest rate than a bank. Bonds are generally regarded as a safer option than stocks, which can go up or down. Unlike stocks, bonds offer predictable scheduled returns.

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Risk Warning – Capital is at Risk

Please note that capital invested is at risk and you may lose some or all of your investment. All investments carry an element of risk, which may stem from their illiquidity, leverage, investment horizon and general risks associated with investments. These risks include capital loss, dilution of shareholder value, that dividends will not be declared, and illiquidity risk due to the absence of a viable secondary market for a particular product. The value of investments may rise or fall due to the volatility of world markets, interest rates or changes in the rate of exchange for the currency in which the investment is denominated. Some investments can experience significant volatility and value fluctuations in a very short space of time, which may present an increased risk of losing your original capital.

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Any illustrations or references to the past performance of a particular investment or an asset class are not necessarily a guide to its performance in the future. With any investment, you may not necessarily get back the amount you invested, particularly if you need to redeem your investment at short notice. Therefore, any investment should only be made after seeking the advice of an appropriately authorised or regulated financial advisor.

Renewable Energy Waste Solutions UK plc does not offer financial advice. If you are in any doubt as to the suitability of this investment, or do not fully understand the terms of this website or of the Prospectus, please consult a financial advisor who is regulated by the Financial Conduct Authority and is authorised pursuant to the Financial Services and Markets Act 2000.

Warning

The intention of Renewable Energy Waste Solutions UK plc is not to seek any investment in bonds by you visiting this site. The contents of the website are not to be considered as a prospectus. The purpose of this site is to explain the nature of Renewable Energy Waste Solutions. The Directors are not making any recommendation as to whether you should or should not buy Bonds in the Company.

