



EFW|21

ENERGY from WASTE

MAY 2018

ETHICAL INVESTMENT  
SHORT TERM, FIXED RETURN



SOLAR|21

For professional  
advisor use only

# ➤ AN OPPORTUNITY TO INVEST IN ENERGY from WASTE (EfW)

Solar 21 Renewable Energy Ltd ("Solar 21") has negotiated the project rights to develop one or more of a portfolio of EfW plants in the north of England (sample of projects from the portfolio is shown on page 2).

Investors' funds will be used to construct one plant selected from the portfolio of eligible projects. Solar 21 will acquire the majority and controlling shareholding in the selected project and will issue sterling-denominated loan notes to investors via a wholly-owned subsidiary dedicated to funding this EfW project development ("EFW 21").

A target return of 28% to 30% gross over an indicative term of 3.5 years is envisaged however these terms will vary over the course of the fundraise. The actual terms of the investment will only be confirmed upon issue of an application form and associated documentation. **No loan notes are available or allocated to investors prior to the application process.**

Investors interested in obtaining further details regarding investing in EFW 21 should consult with their broker or financial advisor. Application forms, Information Memorandums and legal documentation in respect of each loan note are limited to no more than 149 per loan note.

Once issued, the application form and IM will confirm the gross return, term and closing date available to the investor as well as the full terms and conditions of investment.

## FUNDRAISE

Investment is via non-transferable loan notes, on a restricted basis to private and institutional investors. The total fundraise for the project is estimated at GBP £120 million, raised in four phases of £30 million in accordance with the project construction schedule. Bank financing is not being sought at present. It is envisaged that the project will be funded entirely by the loan notes issued, as per Solar 21's previous biomass and biogas projects.

Solar 21 reserves the right to put finance in place should it be necessary to complete the fundraise. Details of each loan note are only available upon issue of application packs which are limited in number to interested parties. Terms may fluctuate during the course of the fundraise depending on several factors including, alternative finance available and stage of construction.

## CONSTRUCTION GUARANTEE BOND

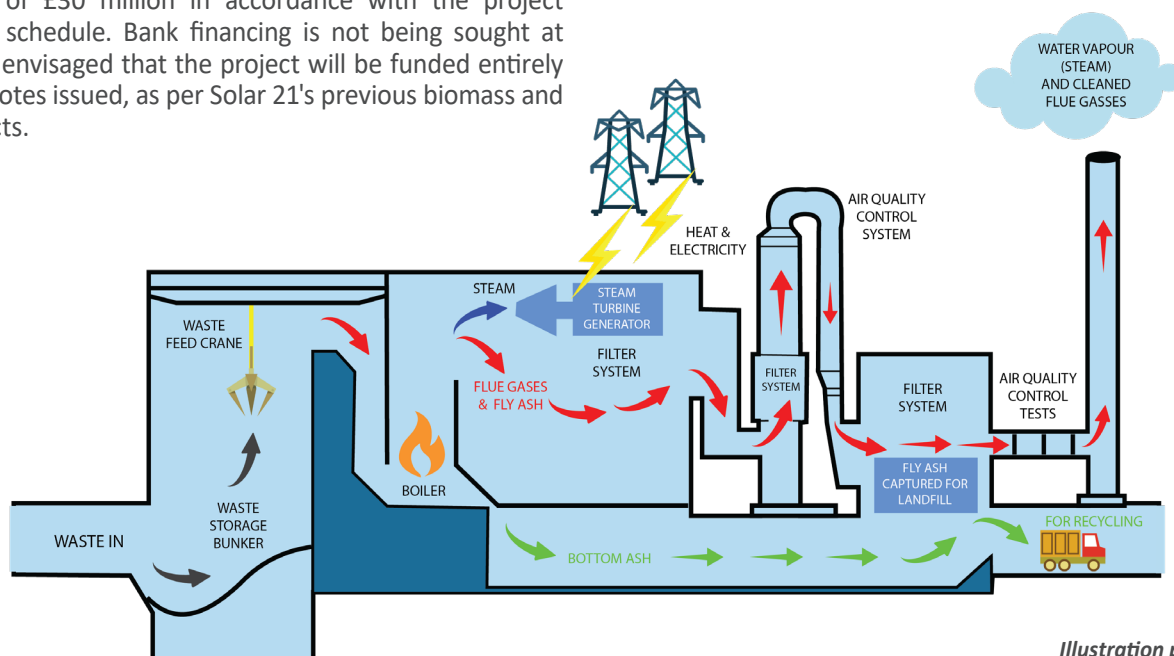
A construction guarantee bond will be put in place by ION Insurance Group so that in the event of a breach of contract by the primary contractor, HRS Energy, the guarantor will pay damages to the value of the construction costs.

## EFW PLANT VALUATION

EY was instructed to prepare a valuation of the proposed EfW plant on the basis that the plant will be energised in 2020. This valuation was performed using a Discounted Cash Flow ("DCF") methodology which is the most commonly applied methodology within the Income Approach. The Income Approach focuses on the income-producing capability of an enterprise or asset. The responsibility of preparing the cash flows and the underlying assumptions is with the Management of the company, EY does not take any responsibility in relation to those assumptions and the cash flows. EY have concluded that the present value of free cash flows to the firm is £200.9m - £220.7m – this is an Enterprise value and does not consider any debt or debt like items which would be in the business at that point.

## INVESTOR SECURITY

For the security of investors, Solar 21 will enter into an agreement to ensure that investors will be repaid from the exit of the plant before Solar 21, the majority shareholder. This agreement will be supported by a share charge over Solar 21's shareholding in the EfW plant. Please refer to the Information Memorandum for further details.



*Illustration purposes only.*

# ➤ WHAT IS THE OPPORTUNITY?

Investors' funds will be used to develop an EfW project selected from Solar 21's portfolio. Details of a sample of eligible projects of similar size from the portfolio are included below. The project that is developed will be selected by Solar 21 based on the critical success factors for this type of development including planning outcomes, feedstock contracts and financial model. Once chosen, the selected project will be detailed in a supplemental information sheet.

## PREFERRED PROJECT

The development at Melton near Hull (see below) is currently our preferred choice, because it is adjacent to Transwaste Recycling and Aggregates Ltd, which will supply feedstock to the plant. Planning permission for an EfW plant had previously been granted for Melton. Solar 21 has submitted a new planning application to bring the proposed plant in line with technology similar to that deployed at Solar 21's operational 22MW Tansterne Biomass plant. We are confident that the new application will be approved based on feedback from the council to date and given that the same process with the same planning authority was successful for Tansterne Biomass.

## WHAT IS ENERGY from WASTE?

Energy from Waste, also known as waste-to-energy, allows energy to be produced from waste that is not recyclable or compostable. In this way it provides a sustainable, safe and affordable waste treatment solution.

The method of producing energy from waste will be combustion, whereby the RDF is burned at 760°C and the energy recovered as electricity and/or heat. The preferred technology is two-stage combustion via fluidised bed, which is similar to the technology built by Hull-based manufacturer CF Struthers for our award-winning biomass plant, Tansterne. Waste will be received in the form of Refuse Derived Fuel (RDF) which is produced by removing recyclable materials from "black bin" waste and then drying and shredding the remaining material.

## UK GOVERNMENT'S COMMITMENT TO EfW

In its Clean Growth Strategy<sup>1</sup>, the UK government has targeted zero avoidable waste going to landfill by 2050. Aside from the negative environmental impact, dumping in landfill is also prohibitively expensive at a minimum of just under £100 per tonne, £88.95<sup>2</sup> of which is government tax. Aside from landfill, the only other option available for black bin waste processing is combustion. High costs are now driving waste disposal companies to come up with sustainable ways of managing waste. EfW is an ideal alternative.

Until recently, much residual waste was exported for EfW; but with the development of a domestic EfW industry, there is now a demand within the UK for domestic residual waste.

<sup>1</sup>Clean Growth Strategy policy paper published 12 Oct 2017 by Department for Business, Energy & Industrial Strategy.

<sup>2</sup>Landfill Tax: increase in rates policy paper published 16 Mar 2016 by HM Revenue & Customs.

## ELIGIBLE PROJECTS

A sample of projects under consideration are shown below and may be subject to change.



**MELTON  
HULL  
22 MW**

**PROJECT RIGHTS** Terms Agreed  
**FEEDSTOCK** Refuse Derived Fuel

**PLANNING** Planning permission previously granted for EfW /  
New planning application submitted to suit HRS design



**SEAL SANDS  
HARTLEPOOL  
22 MW**

**PROJECT RIGHTS** Terms Agreed  
**FEEDSTOCK** Refuse Derived Fuel

**PLANNING** Planning permission previously granted for EfW /  
New planning application to be submitted to suit HRS design



**EAST MIDLANDS 1  
22 MW**

**PROJECT RIGHTS** Terms Agreed  
**FEEDSTOCK** Refuse Derived Fuel

**PLANNING** Environmental Impact Assessment Stage



**EAST MIDLANDS 2  
22 MW**

**PROJECT RIGHTS** Terms Agreed  
**FEEDSTOCK** Refuse Derived Fuel

**PLANNING** Environmental Impact Assessment Stage



# ➤ HOW SECURE IS THIS OPPORTUNITY?

It is important to note that all projects are carefully selected based on their strong commercial viability, long-term return on investment and a clearly defined, robust exit strategy. To capitalize fully on the latest technology and international best practice, we engage established experts in the renewable energy and financial fields. See the Key Advisors section on page 6 for more on this.

In the case of our Energy from Waste projects, the revenue model outlined below (in text and the infographic) provides security to the investor in that it proves an income for the operational plant. Moreover, the independent valuation will give assurance that the project may be exited, as planned, to the benefit of all investors.

Other factors that are critical to ensuring a successful development and exit for investors include:

- the availability of waste and the British government's commitment to EfW as an alternative to landfill (see page 2)
- the revenue model (this page)
- the track record of the key contractors (this page)
- security of feedstock supply (this page)
- the strong track record of the team behind Solar 21 (page 4)

**Please note this is a capital-at-risk investment. Please refer to the Information Memorandum to review the full terms of the investment.**

## STRONG TRACK RECORD OF KEY CONTRACTORS

The plant manufacturer will be CF Struthers. Founded in 1932, Hull-based CF Struthers is one of Britain's most skilled and respected steel fabricators. In less than two years CF Struthers built and assembled our 22MW biomass-powered plant at

Tansterne using technology that is similar to that which will be deployed in the EfW development(s).

The plant will be designed by HRS Energy, the global specialist in clean energy recovery. The London-based firm develops innovative, patented power-generation solutions for waste heat or renewable fuels. HRS Energy has a strong track record which includes completing works for many energy giants including Statoil, Exxon and ConocoPhillips. HRS Energy will be a minority shareholder in the project.

## THE REVENUE MODEL

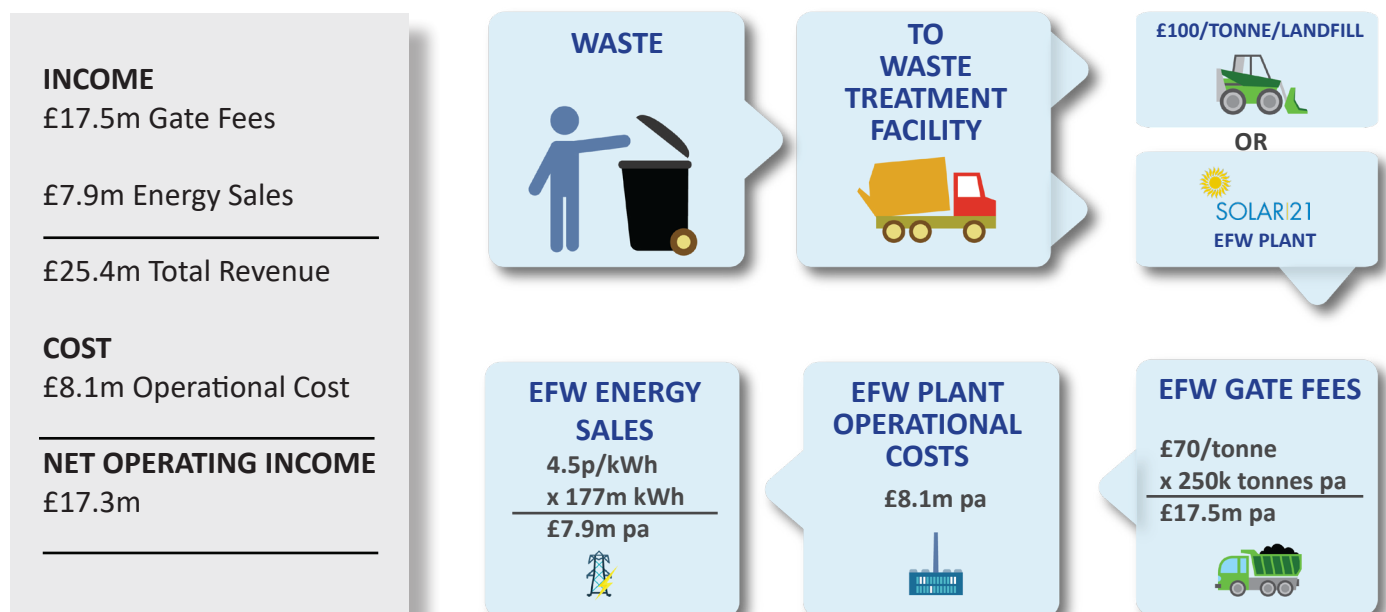
As the infographic shows, there are a number of revenue sources built into the model. EfW plants earn a gate fee for every unit of waste received. The proposed plant will receive waste in the form of RDF. The current rate for receipt of RDF is in the region of £70 per tonne compared to landfill costs currently ranging from £99 per tonne up to £116 per tonne in 2017 (*Source: letsrecycle.com - 2017 gate fees report*). Landfill rates are set to increase further in 2018.

Additional revenue will come from the sale of energy to the national grid via a PPA (Power Purchase Agreement). It is also likely that electricity (and heat) will be sold to other businesses in the vicinity via a private wire agreement which will achieve higher revenues than just selling electricity to the grid. We have already identified numerous offtakers in the adjoining business park.

## SECURITY OF SUPPLY

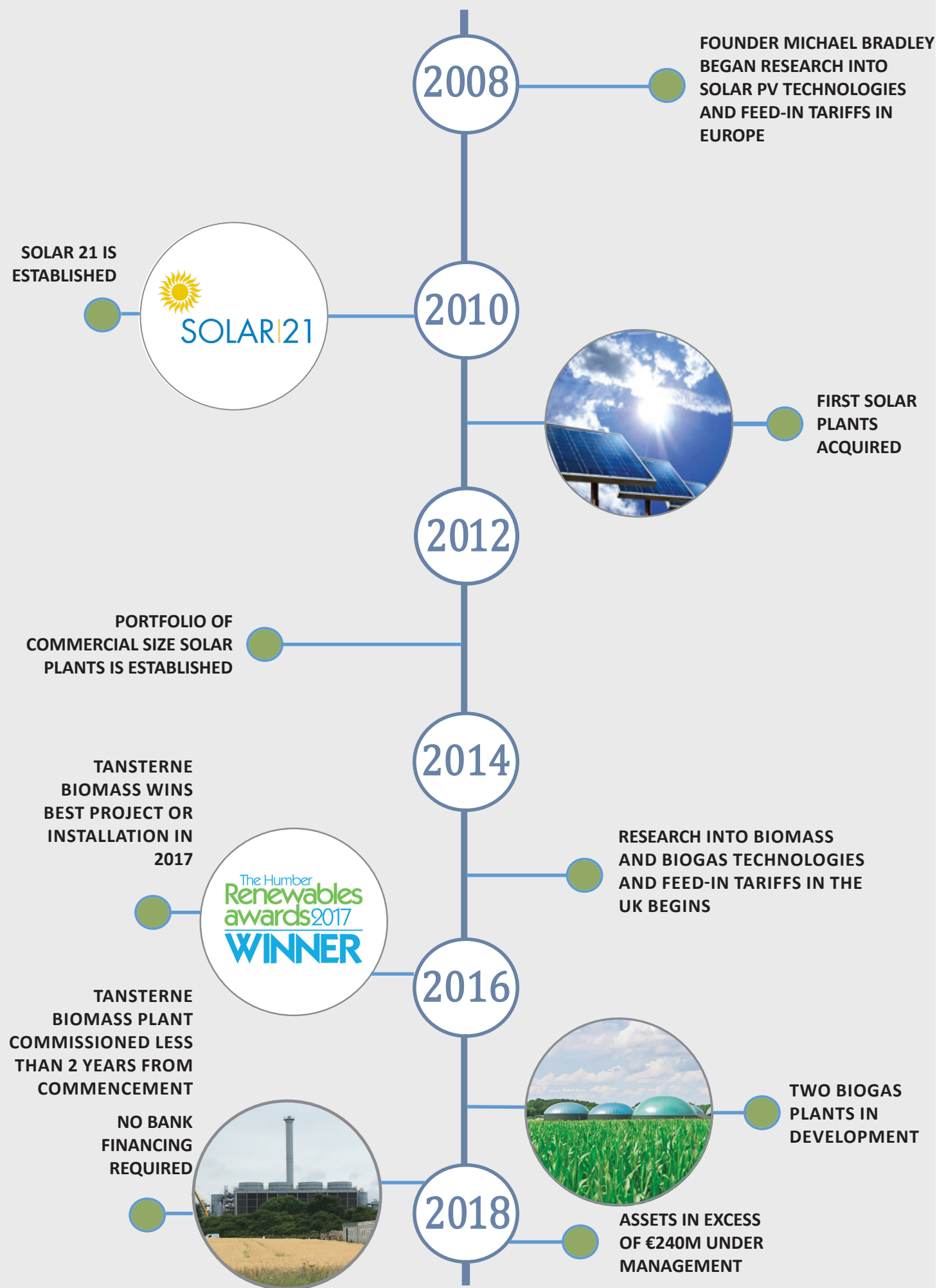
The proposed feedstock will be RDF which is derived from black bin waste. The RDF will be supplied by waste processors including Transwaste Recycling and Aggregates Ltd. Transwaste, which will supply 250,000 tonnes of RDF per annum to both Melton and Seal Sands (if chosen), currently handles over 500,000 tonnes of waste per year at its Melton facility and is licensed to handle up to 750,000 tonnes per annum. Transwaste will be a minority shareholder in the Melton and Seal Sands projects.

## EfW REVENUE ILLUSTRATION





# OUR TRACK RECORD



# MORE ABOUT THE INVESTMENT

EfW 21 is for investors who wish to invest in an ethical project, without compromising on investment returns. This opportunity is ideal for:

- Direct cash investments
- Self-directed pension structures
- Executive pensions
- Pension fund transfers.

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## WHAT IS THE EXIT STRATEGY?

As per the exit for Biomass 21 investors which is currently scheduled to start in April 2019, exit for investors will be by way of refinance and/or sale of the plant at the end of the term. Banks, investment and pension fund managers are attracted to industries where there is a government commitment supported by legislation. The case for EfW is backed up by the UK's Clean Growth Strategy and the commitment to zero avoidable landfill waste by 2050. Please note that this is a capital-at-risk investment. Please refer to the Information Memorandum to review the full terms of the investment.

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## PENSION PARTICIPANTS

Pension participants subscribe for interest-bearing loan notes. Interest accrues from the start date of the loan note and should be paid at the end of the term. Revenue-approved pension structures should not pay income tax or corporation tax. The loan notes are non-transferable and full details including interest rate, security provisions, term, longstop date, interest commencement date will only be available upon an investor making an expression of interest to their broker.

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## NON-PENSION PARTICIPANTS

Non-pension participants (individuals and corporates) subscribe for convertible loan notes. Interest does not accrue during the term; however, a put and call option is in place with Solar 21. It is proposed that Solar 21 (the 100% parent company of EfW 21) purchases the notes for the target return at the end of the term (with recourse only to Solar 21's interest in the Project SPV and EfW 21).

This should result in capital gains tax treatment on the basis that the convertible loan notes are interpreted as debts on security, which are regarded as chargeable assets.

Please refer to the Information Memorandum for further details on individual and corporate investment structures. The Loan notes are non-transferable.

Investors should seek their own independent tax advice as relevant to their personal circumstances and the prevailing tax legislation during the investment term and at the time of exit.

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## WHAT ARE THE RISKS?

While risk mitigation is a fundamental part of Solar 21's investment strategy, all investments carry some risk. Investors should also be aware that this is a development project subject to planning and construction risks.

Full details of potential risks associated with subscribing for loan notes from EfW 21 are outlined in full in our Information Memorandum. Investors should review them carefully when deciding to invest. Investors should seek independent financial, tax and legal advice on the suitability of this product for them and review the warnings outlined on the back of this brochure.

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## WHAT FEES AND CHARGES APPLY?

Investors will receive a return based on 100% of the value of their loan note. Pension-related fees and levies may apply.

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## WHAT RETURN WILL THE INVESTMENT DELIVER?

Details of terms including interest rate, security provisions, term, longstop date, interest commencement date for each note are only available with application packs.

The return on any subsequent tranches will be reduced. The returns available at the time of investment will be confirmed by Solar 21.

Solar 21 may elect to repay the loan notes before the end of the term, in which case the principal and the full interest due for the original term will be paid. Full details are outlined in the Information Memorandum.

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**This brochure does not provide sufficient information on the terms of the investment for an investor to subscribe for loan notes.**

**Investors should read the application form, Information Memorandum and legal documentation to review the full terms of the investment including interest rate, security provisions, term, longstop date and interest commencement date.**

# ➤ KEY CONTRACTORS AND ADVISORS



## CF STRUTHERS

The EfW plant will be manufactured by CF Struthers. Founded in 1932, CF Struthers is one of Britain's most skilled and respected steel fabricators. In less than two years, CF Struthers built Solar 21's 22MW biomass-powered plant at Tansterne using technology that is similar to that which will be deployed in the EfW development.



## HRS

The plant will be designed by HRS Energy Ltd, the global specialist in clean energy recovery. The London-based firm develops innovative, patented power-generation solutions from waste heat or renewable fuels. HRS Energy has designed and supplied more than 250 heat recovery units, waste heat boilers, fired heaters and recuperators for the oil, gas and power industries worldwide.



## TRANSWASTE RECYCLING AND AGGREGATES

Transwaste Recycling and Aggregates Ltd will be a minority shareholder in the Melton and Seal Sands projects. At its purpose-built waste transfer stations, Transwaste is licensed to process up to 750,000 tonnes of waste per annum. The waste originates from local authorities, government organisations, local businesses and the public. As one of the biggest producers of RDF in East Yorkshire, Transwaste will be the feedstock supplier to the Melton and Seal Sands projects.



## ASHCOURT GROUP

The civil engineering division of Hull-based Ashcourt Group will provide civils for the construction of the EfW plant. Ashcourt has grown rapidly from its beginnings as a small family business just over a decade ago to be one of the foremost construction and civils companies in the north east of England. Ashcourt supplied civils for the construction of Solar 21's Tansterne Biomass plant and was the sole provider of the approximately 5000m<sup>3</sup> of concrete required for the project.



## FRAZER-NASH CONSULTANCY

Systems and engineering technology consultancy Frazer-Nash provides multidisciplinary engineering services to governments and industry. It will perform technical due diligence on the EfW plant design. With expertise across a range of sectors, it has a strong track record in the renewable energy sector, working with several major developers in the UK, Europe and Australia. Frazer-Nash has the engineering and commercial expertise necessary to carry out rapid, properly constructed, and defensible due diligence work, assessing equipment and infrastructure for clients to evaluate its investment feasibility.



## GREEN ZONE CONSULTING

Andrew Bradley is one of the founders of Solar 21, which he set up in 2010 with his brother Michael following an extensive period of research into renewable energy. Having built a successful track record in the acquisition and management of solar PV (photovoltaic) plants in Europe, Andrew set up Green Zone Consulting to identify other renewable energy projects. Andrew was instrumental in the success of Solar 21's Tansterne Biomass project, having overseen the project from inception through to commissioning. Andrew will manage the development of the EfW portfolio.



## SHIELDS SADLEIR LAW AND TAX

Shields Sadleir Law & Tax are solicitors to Solar 21. SSLT is a Cork-based law firm that specialises in taxation, corporate and commercial law, property, environmental issues and public procurement. Douglas Sadleir, a founder and partner in the firm, has particular expertise in corporate lending and taxation.



## ION INSURANCE GROUP SA

Ion Insurance Group S.A. (ION) is a specialist insurer concentrating on marine hull and machinery business, aviation, fire & allied perils, residual value, rental default, contractors all risks, financial guarantees and bonds, facultative reinsurance and reinsurance treaty business. ION maintains offices in Costa Rica, the United States of America and Greece. Dun & Bradstreet has rated ION's financial strength as "5A".





An EfW PLANT -  
Illustration purposes only.

*The UK government has targeted zero avoidable waste going to landfill by 2050 as outlined in the "Clean Growth Strategy", published 12 October 2017.*

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The promoter of this Investment is Solar 21 Renewable Energy Ltd. For further details, and to view full Information Memorandum and Terms and Conditions, please consult your financial advisor. There is no guarantee that the performance of the renewable energy portfolio will generate a positive return and your capital is at risk.

This document is for illustration purposes only and should not be treated as an invitation to invest. You should base any subsequent decision to invest on the Information Memorandum and Loan Note provided. These will include full terms and conditions, and a more detailed description of the investment opportunity and the risks associated.

In carrying out this work and preparing the report, EY has worked solely on the instructions of Solar 21 and for their purposes. The report may not have considered issues relevant to any third parties, and any use such third parties may choose to make of the report is entirely at their own risk and EY shall have no responsibility whatsoever in relation to any such use.

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**WARNING:** The value of your investment may go down as well as up. If you invest in this product you will not have any access to your money for at least 3.5 years. The income you receive from this investment may go down. If you invest in this product you may lose some or all of the money you invest. This product may be affected by changes in currency exchange rates.

**WARNING:** The content of this promotion has not been approved by an authorised person within the meaning of the Financial Services and Markets Act 2000. Reliance on this promotion for the purpose of engaging in any investment activity may expose an individual to a significant risk of losing all of the property or other assets invested.

**WARNING:** Any investor seeking to decide on whether or not to invest should read the Application Form, Information Memorandum and legal documentation to review the full terms of the investment including interest rate, security provisions, term, longstop date, interest commencement date. A limited number of application forms are available for each loan note.