



## **WASTE PLANNING ASSESSMENT**

**PROPOSED TEMPORARY R & D FACILITY BUILDING FOR THE  
PROCESSING AND CONVERSION OF RESIDUAL WASTE INTO  
VALUE PRODUCT STREAMS - INCLUDING RESEARCH,  
MONITORING AND ASSESSMENT**

**AT LAND AT**

**MEKATEK LTD., AMEX PARK, OLD LLANSTEFFAN ROAD,  
JOHNSTOWN, CARMARTHEN, CARMARTHENSHIRE, SA31 3NF**

**on behalf of**

**MEKATEK LTD**

**Our Ref: 2011.a  
Date: July 2020  
Prepared by: CLJ**

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## 1.0 INTRODUCTION

- 1.0.1 JCR Planning Ltd. has been instructed by 'Mekatek Ltd.' (the 'Applicant') to prepare and submit a planning application for a proposed temporary research and development facility building for the processing and conversion of residual waste into value product streams - including research, monitoring and assessment at its existing premises at Amex Park, Old Llansteffan Road, Johnstown, Carmarthen, Carmarthenshire, SA31 3NF.
- 1.0.2 Under the requirements of '*Technical Advice Note 21: Waste*', this Waste Planning Assessment has been prepared and should be read in conjunction with all other information submitted as part of this planning application.

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## 2.0 WASTE POLICY STATEMENT

- 2.0.1 The proposal has given full consideration to the Welsh Government's strategic objectives and priorities for managing waste in Wales, including those provisions set out in 'Towards Zero Waste' and 'Collections, Infrastructure and Markets Sector Plan'. In particular, the proposed development will make a direct contribution to maximising the volume of waste that is recycled and minimising the volume of waste being deposited at landfill sites.
- 2.0.2 Due to its close proximity to two strategic transport corridors (A40 and A48), with convenient access to the M4, the application site is in a highly sustainable location to serve both local and regional markets.
- 2.0.3 The Applicant currently operates the existing successful and permitted waste management facility at the application site (Amex Park). However, it has been identified that the demand by existing and potential customers for recycled/re-use of waste of this nature is growing at a rate that the current facility is incapable of meeting. As a result, Amex Park has been identified as being capable of serving this increase in demand through its scale and locational position with regard to sources and end-users.
- 2.0.4 The markets the proposal will continue to serve will comprise elements of all industry, as well as local authorities and other public bodies, both in terms of imported waste and recycled materials.
- 2.0.5 The position the proposed development occupies within the waste hierarchy must also be recognised, which is illustrated in *Figure 1*.
- 2.0.6 Upon receipt of waste material from its customers, the Applicant will highlight the need to reduce waste generation wherever possible through prevention or direct recovery. Where this is not possible, the proposed development will facilitate the next

stage of recycling. As a result, the proposal forms a sustainable part of the established waste hierarchy.

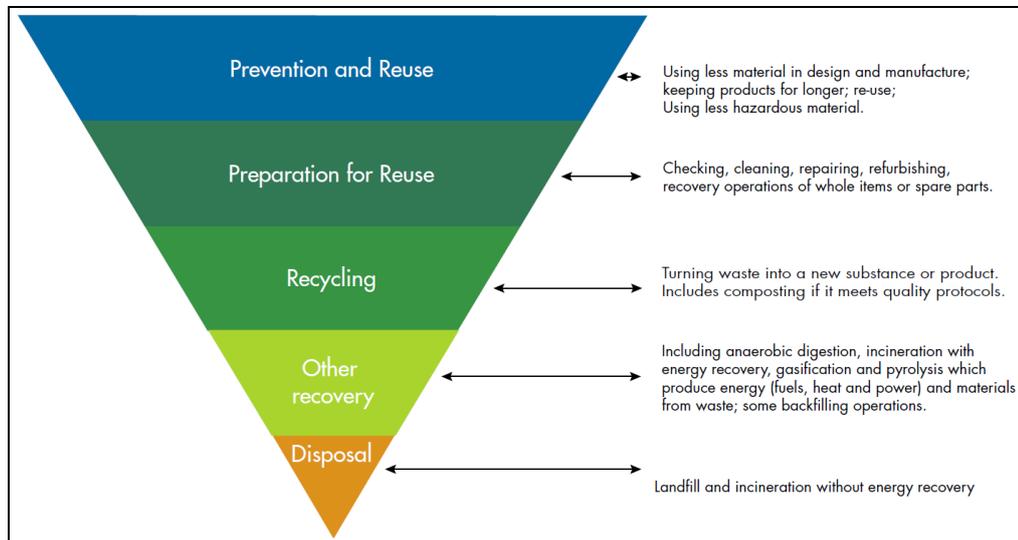


Fig. 1: Waste hierarchy

## 3.0 DEVELOPMENT

### 3.1 TIMESCALE

3.1.1 The proposed building is temporary and will be analysed in terms of its efficiency and cost effectiveness during the life of its planning permission. The proposal will function in line with existing operations at Amex Park.

### 3.2 TYPES AND QUANTITIES OF WASTE TO BE MANAGED

3.2.1 The 'Fiberight' waste recovery process is based upon taking residual waste and converting it into value product streams. Initially, the plant will be used to process reject waste materials from Material Recovery Facilities (MRFs) which will provide 80% of the waste materials. The plant will later be used to process domestic municipal solid waste (MSW) and refuse derived fuel (RDF) accounting for the remaining 20%. The process is shown schematically in *Figure 2*.

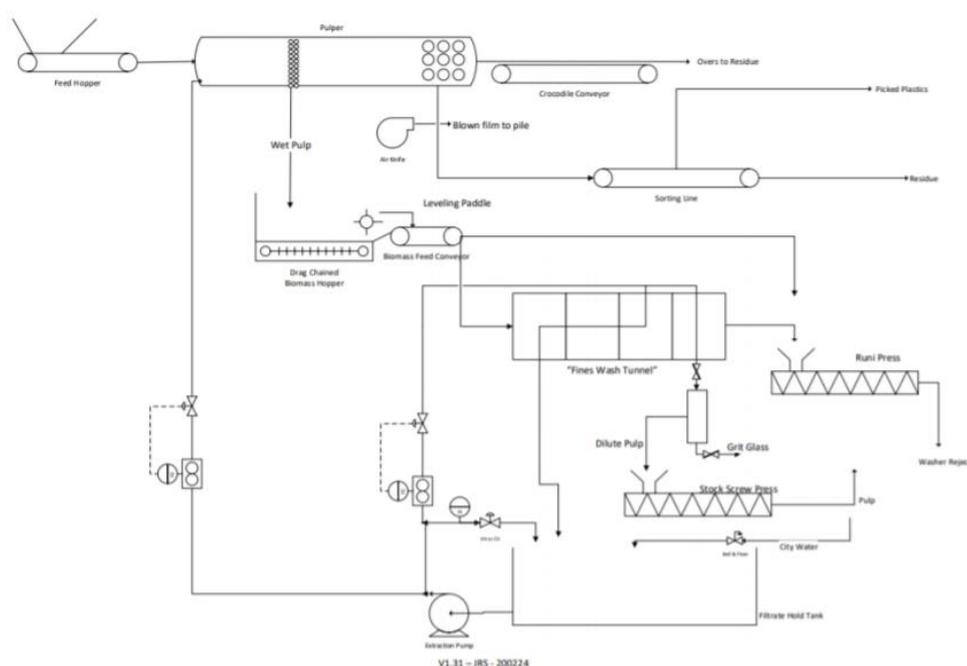


Fig. 2: 'Fiberight' waste recovery process

- 3.2.2 Waste product is fed into a pulper, where the paper element of the waste is mixed with water and processed to form a pulp and is extracted from the remainder of the product stream. The wet pulp is discharged to a biomass hopper for further processing. Foreign contaminants, such as tins, solid plastics, plastic film, etc., are discharged out through the end of the pulper into two separate ‘residue’ streams. These streams are available to be processed further to create more pure product streams for metal, rigid plastic, and plastic film.
- 3.2.3 The wet pulp is transferred from the biomass hopper into a washing tunnel. Here it is further cleaned, to recover the pulp from small piece contamination with smaller contaminants separated out. The clean pulp is then discharged through a grit separator, to remove glass and grit, and into a stock screw press, where excess water is removed from the pulp.
- 3.2.4 The smaller contaminants separated out in the wash tunnel are discharged out to a ‘runi’ press, where they are watered and compacted ready for disposal. The sorting belt allows the non-pulp materials to be sorted for secondary recovery. The pulp is produced at 50% moisture and transferred in bulk bags to another site for final processing into end products, i.e. drying and pelleting. Potential end products include feedstock for paper/board processing, animal bedding and biomass fuel pellets.
- 3.2.5 The proposal is for a facility that will deal with a maximum expected annual tonnage of 5,000 tons per annum, however the actual tonnage is likely to be significantly less and exact quantities will depend on market conditions. In its early stages, the process will be evaluated as part of a research and development programme and, no doubt, adjustment to the process and quantities of waste will occur. Material will be accepted from licenced carriers only, dealing with commercial clients, local authorities and statutory bodies. Material will not be accepted from members of public. The maximum daily movement would be 3 – 4 lorry loads per day, with a total annual movement of 200 – 350 per annum. Two types of vehicle will be utilised – 40 cu yd skip vehicles, with a capacity of 6 – 8 tons, and walking floor trailers, with a capacity of 20 - 24 tons.

3.2.6 The primary waste stream will be non-processable material, a mix of plastics and textiles, which will account for approximately 20 – 30% of the input. Due to the nature of the anticipated streams, it is unlikely that any element of hazardous waste will be generated by the operations. Even so, the storage of such waste, which may inadvertently be collected, will not exceed the thresholds of any specific hazardous substance as set out by the *Planning (Hazardous Substances) (Amendment) (Wales) Regulations 2010*.

3.2.7 The general activity proposed at the site will in effect be the importation of residual waste that has already been processed elsewhere. The end product is a 'hydrocarbon' form of solid dry waste which can be utilised for a number of uses.

### **3.3 DESIGN, LAYOUT, BUILDINGS AND PLANT**

3.3.1 Full details of the proposal and its associated activities can be found in the accompanying drawings, but are summarised below for ease of reference:-

- *Design and Layout* – the proposal will work within the existing site layout and buildings.
- *Processes* – material will enter the site on covered or contained HGVs before being deposited within the proposed building at points indicated on the accompanying drawings. The material will be taken to the allotted points for processing by the respective items of machinery and equipment, producing a range of base material forms.
- *Drainage* – the proposal will utilise the existing foul and surface water drainage systems.
- *Plant* – the proposal will involve the use of a range of plant and machinery as shown in *Figure 2*.

### **3.4 AMENITY AND NUISANCE**

- 3.4.1 All machinery and plant will be subject to regular servicing to ensure that all noise suppression elements are operating in an efficient and effective manner. All loads shall be covered prior to leaving the site.
- 3.4.2 As detailed above, the proposal will utilise the existing surface water run-off management system to ensure no detriment is incurred by adjoining land uses and their users.
- 3.4.3 No external lighting will be used as part of the proposal beyond existing provisions.

### **3.5 AIR POLLUTION**

- 3.5.1 As detailed above, all equipment and plant will be regularly serviced to ensure that all emissions comply with manufacturer's guidelines.

## 4.0 DECLARATION

4.0.1 This Waste Planning Assessment sets out the consideration of the waste hierarchy in respect of developing the proposal subject of this planning application.

Signed: *C. Jones* (JCR Planning Ltd.)

On behalf of: Mekatek Ltd. (the Applicant)

Date: 8<sup>th</sup> July 2020