

Biomass Environmental Solutions Ltd

Part 2: Specific project information.

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For the attention of Mr J Higgins
Director

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Outline discussions:

Our outline discussions after the issue of the revised confidential documentation, opened up the possibility of TJ Waste/Transport considering a facility for producing Biofuels and other bio products from available waste plastic streams.

Generally, these products will be for your own use but equally have a resale opportunity.

Generation of Electricity for all your sites, with export potential.

Providing low duty diesel EN590 grade for all your on-site plant and equipment.

Providing std duty diesel EN590 graded for road vehicle use.

Aggregate waste for infrastructure.

Kerosene and Gasoline for own use and resale.

Issued documentation.

The documentation issued has two parts.

The power point presentation, which is standard documentation.

Part 2, Specific scope of proposal.

Scope of proposal.

The project will be a single module installation, which for the UK we are only looking at Crude Waste Recycling and Waste Plastic Recycling. For your application we have focused on the latter.

Installation costs.

Cost of installation has also been considered, being a single modular construction, this has bought the project to below £19.5M, based upon the prices provided by Kurata Systems for a UK installation.

Our discussions with Kurata Systems Spain, have led to a restructure of UK projects and for our clients throughout the UK, we have been nominated by the Kurata Project UK Team (hereafter KUPT) as the lead contractor for all Mechanical, Electrical and Controls installation works and miscellaneous other works. All civil and structural works will be undertaken by KUPT sub contractors. As you are familiar with Regent Engineering, all our works will be completed to the highest standards.

We have discussed that for the opportunity to work, the prices have to be reduced to include as much as possible to be completed by UK contractors, with also an element of works being able to be completed by our clients, in this case, infrastructure, transportation and waste recycling.

This therefore has given the project a capped price, should the overall UK price be greater than the KUPT and Kurata Spain costings then the contract will be offered under contract with KUPT at a fixed price.

Project re-evaluation:

It has been fair to assume that although the project sum above has been based upon a duplicate installation, it is fair and reasonable that the location selected will have attributes that will genuinely reduce the price. Taking into consideration that it is likely to be able to considerably reduce the project price, it is also fair to state that during the planning application stage, there will possibly be changes required to meet with planning, which will also vary the overall project sum. We have discussed that during the planning stages the re-valuation will be completed, as planning is likely to be between 12–16 weeks, therefore adequate time to complete the construction phase costs.

Return of Investment (ROI).

A single module installation 10,000 tonnes per annum of waste plastics producing approximately
 6.5M litres of EN 590 Diesel or biofuel as it can be modified for other applications with simple changes
 such as the addition of sulphur for higher grade fuel products.
 11,500 litres Kerosene
 3.800 litres Gasoline.
 650 tonnes aggregate for highway use.

The project return of investment has to be less than 5 years, of which the indications from Kurata Spain, the ROI is around 3 years, based upon certain particulars to include their 100% off road use.
 We therefore aim to make the overall ROI a max of five years from start of the installation phase.

Key points for consideration for ROI.

Raw materials for the purpose of producing the output products has been indicated with enough for up to four plants operating, estimated around 40,000 tonnes of plastic per annum.

Hydrocarbon oil duties Act 1979.

KUPT have a body of people currently lobbying the government for the duty to be charged on the products produced, as at the time of the Act, waste to energy solutions were not considered. It is likely that by the time the project is commissioned the Act will have been revised, to allow for reduced duty relief on biofuels used by companies investing into the technology.

For the purpose of the ROI, we have to rely upon current duties to work the best proposal to TJW for a healthy return, of which the costs below can be applied to estimate the ROI.

Fuels used for generation and export of power will attract £0.05711 per litre.
 Fuels used for heating will attract £0.1070 per litre.
 Fuels used for on-site vehicles and plant will attract £0.1114 per litre.
 Fuels used for your own vehicles on the highway will attract £0.5795 per litre.
 Where fuels are resold, the duties will still apply.
 The usual VAT will apply for all resold fuels.
 Aggregate will only attract VAT if resold.

The final return of investment can be estimated once the build cost and financial costs etc have been confirmed,

Therefore, we would need to pre-consider before moving forward an appraisal of the following from TJW, to issue a final proposal.

Additional information required:

Please can you provide the following information for us to be able to submit a portfolio for the project for further revision:

Overall Electric annual use for all your sites, including offices etc.

Indication of any future requirement for additional energy.

Total annual fuel use of red diesel and buying prices for plant and vehicles on site.

Annual fuel use and buying prices for vehicles and plant otherwise contracted out for site services.

Total annual use for road vehicles and buying prices, including petrol and diesel engines.

Savings of 11,000 tonnes of waste plastic that would otherwise go to landfill or

Costs per tonne if the plastic goes forward for resale, as this will be therefore calculated as cost of fuel.

All prices need to be provided net of VAT, also if Duty is paid to indicate duty.

Design responsibility.

The design for the project will be underwritten by Kurata Spain, where the footprint and dynamics should be incorporated as close as possible to the layout of the Cordoba site. Where changes are inevitable, the submission for dynamic changes will involve a redesign process, (included within the project costs) to ensure the affected part of the system will perform, or indeed to advise any changes required to incorporate the change of design. The final position of the technology does need to be positioned and arranged as per the design criteria. The sub-construction plant and equipment can be adjusted as per the site installation, there will be a full design consultation before plant and equipment are ordered.

Planning:

The planning stage will require all parties to work together, of which the costs for the Kurata UK projects team and BESL will be included within the project sum deposit. The client or authority will be named as the applicant, there will be additional costs incurred for the completion of the application. The costs inclusion of these works by the client and authority are not included.

Structure sizes and footprint:

The tallest construction is the main plant, height 32mtrs, but can be re-constructed in a sub-basement build of a maximum 10mtrs, giving an overall height of 22mtrs. The stack for condensation will be at low level with a total height of 12.5mtrs high, 1.75mtrs diameter which will be installed away from the main building.

The overall site can be compacted into 3 acres, but with future expansion, storage and grading operations the site will need to be 5 acres as a minimum.

Cash flow:

Deposit 10%

The deposit paid to Kurata UK projects team will be subject to a 14 day, cooling off period, where if the client(s) should decide to abort the project, 50% will be refunded, as the enabling phase would had commenced between all parties, to include documentation preparation etc.

After the 14 days, the planning phase will be commenced between all parties, during to this stage the final project price will be confirmed but will have provisional sums applied it will not exceed the considered price of £19.5M, more than likely to be less. These savings will be passed onto the client for overall project savings. Planning is expected to be between 12 and 16 weeks for completion.

On completion of planning approval, the construction phase will commence.

A further 50% (of the Kurata Package) will be paid to Kurata UK project team, for the procurement of the technologies and specialist equipment. The last piece of technology will be delivered to site approximately 9 months from order.

Contract payments and retentions:

All contract payments will have been scheduled during the planning and pricing phases, to agree the application for payments moving forward for the construction period. The application for payments will have to be approved by the client's or joint representatives, to be deemed completed, as on schedule etc.

Where any application for payment is deemed a submission overpriced, the application will be assessed by both parties. Payment terms will be net 14 days from date of application submittal or from the date of resubmission. (Resubmission will be agreed between both parties within 7 days).

Contract retentions will be 5% to completion, 2.5% to end of year 1, released providing no outstanding warranty works need completion.

Program (initial).

Period Months 1 – 4	Period Months 4 – 12	Construction Months 5 – 17	Commissioning Months 15 – 20	Acceptance Months 18 – 20	Handover Months 18 – 20	Training Year 1 12 Months	Compliance Year 2 12 Months
Planning and Pricing	Technology manufacture and delivery	Phased construction	Phased completion as technology come on-line	The EA will require access to site during commissioning stages	Hand over to selected plant operatives, with Kurata ongoing training	Kurata commitment to have 3 engineers on site for full training and supervision.	Kurata commitment to have 1 engineer on site for completion of warranty issues and compliance

Commissioning:

There will be a requirement to provide plastic waste fuel for the commissioning period, all other power and water will be provided as part of the site infrastructure, indicated in the project costs.

Training:

A full training program will be incorporated for the future handover of the plant and equipment to either enable your own staff to operate as an ongoing basis.

Kurata Spain will provide during commissioning and handover, 3 in No Engineers to complete training and competency for the first year, the second year 1 engineer will remain for another year for compliance and competency. These costs are covered within the project costs.

Warranties:

The technology is warranted for 10 years from the date of commissioning.

The warranty will be backed up with a service and maintenance plan, which will be detailed for completion by the operating personnel. Providing the technology is correctly maintained the warranty will be valid. Compliance will be part of the training program.

The technology provider will also warrant the biofuel for vehicle use, as the product for this use will be EN 590 equivalent. Other bi products will be defined for their use.

Operation of plant:

It will be part of the project design and development, that within 2 years after commissioning the plant will be operated by your own employees, they will be trained and supervised for the 2 years after commissioning. Alternatively, Kurata UK/ BESL will consider a JV venture to run the facility for an extended period for the life of the plant. 20 years

Additionally: there will be an opportunity to train technicians and apprentices during the course of the contract.

Operation cost:

The operating costs of the plant are expected to be in the region of less than £750K per annum. This figure is taken into consideration where the net sum of the products has been stated.

This figure excludes the cost of finance, which are as previous under the ROI section.

Kurata technology inspections:

We will be able to arrange site visits to Spain, (Cordoba and Madrid), prior to considering the project. Currently we are scheduling these for early September for a three-day visit, with other interested parties, as there will be an open opportunity to discuss with other investors in the UK.

However, if you wish to have a shorter one 2 one visit we can also arrange.

The costs for the visits will be incumbent to each party.

Regional considerations:

Where the projects have been discussed with other investors, we have discussed and recognised the need to safeguard your investment, to avoid another technology by Kurata being allowed to operate locally. Therefore, the closet private operation (exception MOD Salisbury plain) will be located South East London, Birmingham and Plymouth. There are no other interested parties in the home counties, but we have extensive interest for both plastic and crude interest in South Wales. Other sites presently of interest are Hull and Perth (Scotland).

Other locations include, Liverpool, Manchester, Carlisle and Ipswich.

Association of Kurata members:

Basically, to establish links between all Kurata waste plastic plants in the UK, to share resources for fuel streams, as currently it is likely that with TJW will be able to provide excess fuel at a sensible price rather than landfill to South Wales customers.

Carbon footprint:

With BESL's tree growing program (see website www.besl-energy.uk) we aim to plant throughout the build phase of the project 10,000 trees, which will capture 300,000 tonnes of carbon through the trees life cycle, for any planning off set and future offset.

Note the trees will be established as far as practicable as close as to the site as possible, but accessible as part of the tree growing program for coppice every 5 – 6 years for biomass fuel supplies.

Local projects:

For every Kurata plant location, we will have a profile for schools, colleges and other interested parties to educate the uses of plastics and waste, the technologies for their disposal, interaction projects for local awareness and possible future careers into the industry.

Additional technologies available:

We can provide costs for technologies for all other types of waste, solutions are available on request.

Moving forward;

If you wish to move forward to further discussions, please do not hesitate to contact the undersigned.

Yours Sincerely.

Alan P Conduit

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