# Project Outline

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| **Project Title :** | Anaerobic Digestion Project- Husbands Bosworth | | |
| **Sponsor :** | Peter Jones & Village Power CIC | **Date :** | January 2015 |

## Background

This project relates to the conversion of waste domestic and/or retail and commercial feedstocks into a fuel gas by the use of anaerobic digestion techniques and subsequently producing electricity by the burning of that fuel gas in engines to drive generator sets. This electricity can then be used to deliver “distributed” energy by colocation alongside local high power consumption sites. The intention is to reduce the carbon footprint of supply for the user, improve security of supply and safeguard local jobs by improving the green credentials of the user within their supply chain.

## Project Synopsis

In Husbands Bosworth a large energy user has been identified who produces shopfitting equipment for the office, transport, retail and hospitality sectors. Their current spend is of the order of £70K annually ,a level which is subject to future price escalation of at least 5% as historically written off supply sources (mainly coal) are replaced. The user is keen to co- invest in a renewable power source and he has an available site adjacent to his energy offtake on which to site it if it offers economic advantages compared to grid supply over time. The user is currently sensitive to sustainability requests from his supply chain (large branded companies) and sees locally waste derived systems as attractive. To match offtake it is projected that an 8000 tonne throughput should be targeted.

Within 3 miles there is also a single source of high grade blood and offal currently spending £33K annually on disposal via high temperature incineration .He is prepared to switch exit routes if gate fees are more attractive –but he is not prepared to invest direct. This supply amounts to 1000 tpa.

The balance would need to be sourced from local waste cos, preferably acting on a sub-agency basis, targeting the local food retail ,leisure, hotel and hospitality sectors which have hundreds of such sites within a 15 mile radius. Operationally it is felt that a mixture of self collection on large van format plus drop off off segregated loads from local waste collectors would service the needs of the plant.

## Outline financials

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| **Description** | **Income** | **Expenditure** |
| Electricity sales at 150Kwp production level | £ 60,000  RHI? | Plant OPEX £ ?? |
| Gate fees offal on 1000 tonnes  Gate fees other organic material 7000 tes. | £ 30,000  £120,000 | Logistics wages £60,000 |

## SWOT analysis

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| **Strengths** | **Weakness** |
| This c£3.2m project would be the first community owned AD project in the UK.  The power user is interested in a minority stake  Local power supply integrity is stretched  Supports local firms and employment  Potential to access Renewable Heat Incentive | Funders may be reluctant to commit  No extant community bod type projects in the area.  Issues around grid connection fees by Western Power.  Businesses may cease trading |
| **Oportunities** | **Threats** |
| Great replicability  Acceptance point for domestic food arisings which HDC have withdrawn from.  Access to local commercial food arisings  Expands technology portfolio  Sales of digestate to local farmers  Potential sales to gliding club  The Euro Exchange risk on European plant is reducing. | Already commercially proven with over 150 schemes already operating.  Risks of contamination by packaging etc.  Much of this supply is subject to National accounts frameworks by the major brands.  Need for strong balance sheet credentials of operators.  Product must be to PAS 1100 standards.  Planning Consent opposition by neighbours. |

## Sustainability rating

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| --- | --- | --- |
|  | **Comments** | **Score**  **-5 to 5** |
| **Social** | Probably capable of generating 5-8 jobs |  |
| **Economic** | Backed by Government price guarantees other than cfd regime |  |
| **Environmental** | Reduced carbon footprint compared to “bundled” value ex grid. |  |

## Summary

[Executive summary, considering the pros & Cons that should be enough to convince the board]

## Project Status

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| --- | --- | --- | --- |
| **Accepted/Rejected** |  | **Date :** |  |
| **Reason** | | | |
| [A statement from the board as to why the project proposal was accepted/rejected] | | | |