COMMITTEE DATE: 13/05/2015

APPLICATION No. 15/00591/MJR APPLICATION DATE: 16/03/2015

ED: **SPLOTT**

APP: TYPE: Full Planning Permission

APPLICANT: Kelda Organic Energy Ltd
LOCATION: CARDIFF WASTE WATER TREATMENT WORKS, TIDE FIELDS ROAD, EAST MOORS, CARDIFF, CF14 2RX
PROPOSAL: CONSTRUCTION OF A 2 MW ANAEROBIC DIGESTION FACILITY, LANDSCAPING AND ASSOCIATED INFRASTRUCTURE

RECOMMENDATION 1: That the County Council is satisfied that the submitted Environmental Statement dated April 2013 and Addendum dated March 2015 contains sufficient information and the Council has taken account of the Environmental Statement and accompanying information in assessing the environmental impacts of the proposed development.

RECOMMENDATION 2: That planning permission be **GRANTED** subject to the following conditions:

1. C01 Statutory Time Limit

2. Prior to any excavations on site a scheme of construction management shall be submitted to and approved by the Local Planning Authority to include details of construction traffic routes, site hoardings, site access, wheel washing facilities and parking of contractors vehicles. The development construction shall be managed strictly in accordance with the scheme so approved.
   Reason: In the interests of highway safety and public amenity.

3. Prior to the beneficial use of the development hereby approved the details of any appropriate gas protection measures which may be required to ensure the safe management of gases, including the sealing of the piles with the geosynthetic membrane shall be submitted to and approved in writing by the Local Planning Authority. All required gas protection measures shall be installed and appropriately verified before occupation of any part of the approved development and the approved protection measures shall be retained and maintained until such time as the Local Planning Authority agrees in writing that the measures are no longer required.
   Reason: To ensure that the safety of future occupiers is not prejudiced in accordance with policy 2.63 of the Cardiff Unitary Development Plan.

4. Prior to the commencement of earthworks on site a suitable management strategy in the form of a Materials Management Plan in

accordance with the CL:AIRE Industry Code of Practice, to include all necessary verification sampling of excavated and deposited materials shall be submitted to and approved in writing by the Local Planning Authority. The scheme shall include all works to be undertaken, a timetable of works and site management procedures.
Reason: To ensure that any unacceptable risks from land contamination (Asbestos containing soils) to the future users of the land, neighbouring land, are minimised, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors in accordance with policy 2.63 of the Cardiff Unitary Development Plan.

5. Upon completion of all earthworks a verification report that demonstrates the effectiveness of the Materials Management Plan shall be submitted to and approved in writing by the Local Planning Authority.
Reason: To ensure that any unacceptable risks from land contamination (Asbestos containing soils) to the future users of the land, neighbouring land, are minimised, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors in accordance with policy 2.63 of the Cardiff Unitary Development Plan.

6. In the event that contamination is found at any time when carrying out the approved development that was not previously identified it shall be reported in writing within 2 days to the Local Planning Authority, all associated works shall stop, and no further development shall take place unless otherwise agreed in writing until a scheme to deal with the contamination found has been approved. An investigation and risk assessment shall be undertaken and where remediation is necessary a remediation scheme and verification plan shall be prepared and submitted to and approved in writing by the Local Planning Authority. Following completion of measures identified in the approved remediation scheme a verification report shall be submitted to and approved in writing by the Local Planning Authority. The timescale for the above actions shall be agreed with the Local Planning Authority within 2 weeks of the discovery of any unsuspected contamination.
Reason: To ensure that any unacceptable risks from land contamination to the future users of the land, neighbouring land, controlled waters, property and ecological systems are minimised, and to ensure that the development can be carried out safely without unacceptable risks to workers, neighbours and other offsite receptors in accordance with policy 2.63 of the Cardiff Unitary Development Plan.

7. Any topsoil [natural or manufactured],or subsoil, to be imported shall be assessed for chemical or other potential contaminants in accordance with a scheme of investigation to be submitted to and approved in writing by the Local Planning Authority in advance of its importation. Only material approved by the Local Planning Authority shall be imported. All measures specified in the approved scheme shall be undertaken in accordance with the relevant Code of Practice and Guidance Notes.

Subject to approval of the above, verification sampling of the material received at the development site shall verify that the imported soil is free from contamination and shall be undertaken in accordance with a scheme agreed with in writing by the Local Planning Authority.
Reason: To ensure that the safety of future occupiers is not prejudiced in accordance with policy 2.63 of the Cardiff Unitary Development Plan.

8. E7Z Imported Aggregates

9. The car / motorcycle parking spaces and vehicle turning areas (including that which has been indicated for Welsh Water purposes) shown on the approved plans shall be provided prior to the development being brought into beneficial use and thereafter shall be maintained and shall not be used for any purpose other than the parking and turning of vehicles.
Reason: To ensure that the use of the proposed development does not interfere with the safety and free flow of traffic passing along the highway.

10. Prior to their installation on site details showing the provision of the cycle parking spaces shown on drawing no. SK-015 Revision P8 shall be submitted to and approved in writing by the Local Planning Authority. The approved details shall be implemented prior to the development being put into beneficial use. Thereafter the cycle parking spaces shall be maintained and shall not be used for any other purpose.
Reason: To ensure that adequate provision is made for the secure parking of cycles.

11. Prior to beneficial use of the development hereby approved details of the footway improvement works between the site entrance and the adopted highway (as illustrated on drawing No. SK-015 Revision P8) shall be submitted to and approved in writing by the Local Planning Authority. These works shall include new footway construction together with the resurfacing of the existing footway as required. Those details shall be implemented prior to the development being put into beneficial use.
Reason: To facilitate the safe movement of pedestrians.

12. Prior to beneficial use of the development hereby approved details of the HGV vehicle routes, to and from the approved anaerobic digestion facility, shall be submitted to and approved in writing by the Local Planning Authority. The routing of vehicles shall be managed strictly in accordance with the plan so approved.
Reason: To ensure that no bulk vehicles associated with the development use residential streets to access the facility.

13. The mitigation measures set out in paragraphs 8.101 to 8.112 of the Ecology and Nature Conservation section of the Environmental Statement shall be fully implemented as detailed within the submitted document.
Reason: In the interests of nature conservation and the protection of the protected Severn Estuary designations.

14. The drainage scheme hereby approved shall be implemented in accordance with the scheme shown on drawing no. SK-017 Revision P6, and shall be maintained thereafter, unless otherwise agreed in writing with the Local Planning Authority.
Reason: To ensure an orderly form of development.

15. The approved Anaerobic Digestion facility shall process up to a maximum of 35,000 tonnes per annum, as stated within the planning application.
Reason: The application has been assessed on this basis.

16. Prior to beneficial use of the development hereby approved full details of landscaping works shall be submitted to and approved in writing by the Local Planning Authority. The submitted details shall include planting plans (including schedules of plant species, sizes, numbers or densities, and in the case of trees, planting, staking, mulching, protection, soil protection and after care methods) and an implementation programme. The landscaping shall be carried out in accordance with the approved design and implementation programme.
Reason: To enable the Local Planning Authority, to determine that the proposals will maintain and improve the amenity of the area, and to monitor compliance.

17. C4R Landscaping Implementation

RECOMMENDATION 2 : The contamination assessments and the affects of unstable land are considered on the basis of the best information available to the Planning Authority and are not necessarily exhaustive. The Authority takes due diligence when assessing these impacts, however you are minded that the responsibility for

(i) determining the extent and effects of such constraints and;
(ii) ensuring that any imported materials (including, topsoils, subsoils, aggregates and recycled or manufactured aggregates / soils) are chemically suitable for the proposed end use. Under no circumstances should controlled waste be imported. It is an offence under section 33 of the environmental Protection Act 1990 to deposit controlled waste on a site which does not benefit from an appropriate waste management license. The following must not be imported to a development site:
- Unprocessed / unsorted demolition wastes.
- Any materials originating from a site confirmed as being contaminated or potentially contaminated by chemical or radioactive substances.
- Japanese Knotweed stems, leaves and rhizome infested soils. In addition to section 33 above, it is also an offence under the Wildlife and Countryside Act 1981 to spread this invasive weed; and

(iii) the safe development and secure occupancy of the site rests with

the developer.

Proposals for areas of possible land instability should take due account of the physical and chemical constraints and may include action on land reclamation or other remedial action to enable beneficial use of unstable land.

The Local Planning Authority has determined the application on the basis of the information available to it, but this does not mean that the land can be considered free from contamination.

RECOMMENDATION 3: That the applicant be advised to contact the Operational Manager, Highway Operations, prior to undertaking the works associated with the footway improvement works conditioned above, in order to obtain the necessary licence and to agree the specification for the works.

RECOMMENDATION 4**:** That the applicant be encouraged to provide information to future workers regarding public transport and non-car mode information in order to encourage more sustainable modes of travel.

1. **DESCRIPTION OF PROPOSED DEVELOPMENT**

1.1 Full planning permission is sought for the construction of a 2MW anaerobic digestion facility, landscaping and associated infrastructure on land at Tide Fields Road, Splott.

1.2 The Welsh Government has set a national target to recycle 70% of all waste by 2025. In response to this target, the Cardiff Organic Waste Treatment Project has been created to source suitable technologies to treat Cardiff's source-separated food and green/garden waste collected from the kerbside, household waste sites, parks/gardens and businesses. The proposal is part of a competitive bid submission by the applicant and the project has been developed in response to the overarching waste strategy for Wales entitled 'Towards Zero Waste', which sets challenging interim targets focused on achieving high levels of recycling and composting as well as exceeding the European Union landfill diversion rates.

1.3 With the project in mind the applicant proposes to build and operate a state of the art facility to treat food waste using proven anaerobic digestion technology on vacant land at Dwr Cymru's Waste Water Treatment Works at Tide Fields Road, Cardiff.

1.4 The Anaerobic Digestion (AD) facility uses a series of processes in which microorganisms convert biodegradable material into green energy (Biogas) and a fertiliser (Digestate). The energy produced would be used to power the AD facility and enable transmission to the adjacent Dwr Cymru Waste Water Treatment Works, offsetting the need to export electricity from the national grid.

1.5 Members will recall resolving to grant planning permission for a 1.5MW anaerobic digestion facility on the site in July 2013 (see appended committee report for 13/00686/DCO), subject to relevant conditions.

1.6 The current application has been submitted to seek permission for changes to the approved scheme. The facility would still process up to 35,000 tonnes of food waste per annum, which would now generate up to 2MW of 'green electricity,' together with nitrate and potash rich bio-fertiliser, that can be utilised on local farm land. This represents a 0.5MW increase on the approved application, which arises from improved efficiencies in the approved process. The current application differs from the approved development in the following respects (a summary of the proposed amendments is appended to this report):

(i) Use of piled foundation as the construction method;
(ii) Increase in site levels by 0.25 metres;
(iii) Increase in footprint size of combined heat and power (CHP) plant;
(iv) Increase in footprint size of bio-filter plant, and additional heat exchanger;
(v) Re-siting of the bio-filter plant, pasteuriser plant and the reception tank;
(vi) Re-siting of digestate storage, primary and secondary fermenter plant;
(vii) Addition of lightning protection to the Digestate Storage Tank;
(viii) The bund wall to be of a height of 1.95m and not earth bunded on the southern boundary;
(ix) Change in location of the, transformer, flare and cycle storage;
(x) Minor alterations to the office building;
(xi) Re-location of parking spaces;
(xii) New below ground 100 m3 surface water drainage tank (for surface water drainage); and
(xiii) Additional door to the waste reception building.

1.7 The existing access point from Tide Fields Road will be retained in order to serve both staff (accessing the site by foot, bicycle or car), and operational HGVs associated with the proposed facility. A dedicated internal access road will be constructed to facilitate movement from the existing access point at Tide Fields Road to the site entrance. The new access road will also be suitable for the two-way operation of HGV vehicles to and from the site.

1.8 A total of eight parking spaces will be provided, including two mobility spaces. Provision will be made for sheltered parking for up to five bicycles, supported by the provision of internal changing / shower facilities.

1.9 The previous application was accompanied by an Environmental Statement dated April 2013 and included the following topics:

(i) Noise Impact Assessment
(ii) Contaminated Land Risk Assessment
(iii) Flood Consequences Assessment
(iv) Ecology
(v) Air Quality Assessment
(vi) Transport Statement
(vii) Socio Economic Impacts
(viii) Landscape and Visual Appraisal
(ix) Cumulative Effects

(x) Alternatives
(xi) Mitigation Measures

1.10 An addendum to the Environmental Statement (ES) dated March 2015, with a corresponding addendum to the Non-Technical Summary accompanies this application, to be read alongside the previous ES, in accordance with the Town and Country Planning (Environmental Impact Assessment) Regulations 1999 (as amended). The ES addendum makes the following conclusions:

(i) Noise – Consideration has been given to piling works during construction. It has been found that these works could potentially result in temporary significant effects without mitigation. Mitigation measures (Acoustic screening) have been identified which would reduce the construction noise impact during piling activities and eliminate the significant effects. Noise from newly assessed items of external plant (i.e., the dryer and chiller facility associated with the CHP plant), has been assessed for operational effects, in combination with other items of plant assessed in the Original ES. It has been found that effects presented in the Original ES will remain unchanged and that the operational noise effects will remain to result in no significant noise effects.

(ii) Geology and Ground Conditions – The choice of a piled foundation design has been made after consideration of issues such as the potential for consolidation, aggressive ground conditions, buried obstructions such as concrete and railway tracks and the potential for encountering very dense or fused slag fill material. The piled foundation design has been considered in the revised environmental impact assessment following further ground investigation work carried out by Terra Firma Ltd in 2014 and a review of all available information gathered on the site carried out by SLR Consulting in January 2015. Industry standard construction mitigation measures have been proposed to address contaminated land issues such as the presence of asbestos, potential migration of ground gas and unexploded ordnance to ensure no significant residual impacts. A Remediation Strategy to be agreed with the contaminated land officer at Cardiff Council is also now proposed to cover the proposed remediation methods in detail. The overall conclusion of the original ES that there will be no residual significant effects remains valid.

(iii) Ecology and Nature Conservation – The value and sensitivity of receptors listed in the original ES remain unchanged. No new receptors have been identified, and the conservation status and legal protection of these receptors remains unchanged. Therefore no changes to the Ecological Impact Assessment section of the original ES are required. In respect of construction effects, the construction noise assessment has been updated to account for the inclusion of piling which was not previously proposed as part of the construction process. As a result, predicted noise levels during construction for the revised proposal are higher than those stated in the original ES. Maximum noise levels (unmitigated) during piling operations, for the revised

Development, are predicted to be 66 dB at a distance of 300 m, (Part 2 – Section 5: Noise (Table 5.1)), which is in excess of the 55 dB threshold (below which adverse impacts on designated species are unlikely) cited1 in the Original ES. Mitigation to reduce the noise impacts of piling is proposed and, as a result, would reduce the predicted noise level to 56 dB at 300 m. The closest point of the Severn Estuary designated site (SPA, SAC, Ramsar, SSSI) is 340 m from the Development site boundary, and a greater distance from the actual location of piling activity within the Development site. It is therefore considered very unlikely that the predicted noise level across any part of the designated site would exceed 55 dB(A)max. In addition, more recent studies (Cutts et al. 20092; Wright et al. 20103) have found that the levels at which impulsive noise (such as piling) will start to disturb waterbirds are between 55 and 70 dB(A)max. Piling works are programmed to take approximately 9 weeks to complete, and the predicted noise levels assume a non-stop operation during the day as a worst-case. The predicted piling noise levels also relate to the time when works are undertaken, and not to the full daytime period, in practice, the works are unlikely to be undertaken non-stop. With the implementation of the proposed mitigation, the 55 dB(A)max threshold in the original ES is unlikely to be exceeded within the designated site during the temporary period of construction during which piling is to be undertaken, and therefore it is unlikely that adverse impacts on designated species would occur. The assessment of noise/visual disturbance in the original ES is therefore still considered valid and is not required to be updated. In respect of Operational Effects, the size of Combined Heat and Power (CHP) plant has increased from 1.5 megawatts (MW) to 2 MW (using the same amount of waste input per annum). The SO2 emission rate for the 2 MW plant is less than that of the 1.5 MW plant previously proposed. Therefore the original assessment for SO2 emissions can be considered precautionary and remains valid.

The nitrogen deposition impacts have not changed for the revised Development and the Predicted Environmental Concentration (PEC) remains at 13.92 kg N/ha/year which is within the critical load of 20-30 kg N/ha/year. As a result the original ES does not require updating following the changes set out in this ES Addendum.

(iv) Air Quality (Odour Assessment) - No amendments are required to this section however the proposed increase in footprint size of the biofilter plant and the additional heat exchanger will improve odour treatment to mitigate emissions to neighbours.

(Emissions from Point Sources) The Human Health Assessment requires updating following the subsequent remodelling of emissions from point sources. Additional modelling of the impacts at sensitive receptor locations was undertaken to reflect the change in the size of the CHP facility. There is no change in the impact significance of PECs as shown in Table 9.5 in the Original ES and therefore no amendments are required to this section.

(Ecological Assessment) Predicted nitrogen deposition impacts have not changed as a result of the proposed amendments to the Development and the PEC remains at 13.92 kg N/ha/year which is within the critical load of 20 to 30 kg N/ha/year. As a result, no amendments are required to this section. As the SOX emission rate for the 2 MW plant is less than that of the 1.5 MW plant previously modelled, SO2 emissions have not been modelled at this stage and so the Original ES assessment for SO2 emissions remains as a precautionary approach. Therefore predicted SO2 impacts have not changed as a result of the proposed amendments to the Development and the predicted PECs at the Severn Estuary Boundary receptors are within the Critical Level of 20 µg/m3. As a result, no amendments are required to this section.

(Emissions from Vehicles) There has been no change to the number of HGV and LGV movements predicted during the construction period or the operational phase and so these sections do not require updating.

(v) Transport – no update is required following the revised assessment.

(vi) Socio-Economic – no update is required following the revised assessment.

(vii) Water – The Original ES proposed to discharge surface water and foul flows from the site into existing surface water and foul sewers situated to the south west of the site at Martin Road and that the layout of the proposed Development would be such that drainage will be split into two ‘catchments’ according to whether runoff is to discharge to the foul sewer or the surface water sewer. It is still the intention to dispose of surface water to the Welsh Water surface water and foul water infrastructure to the south west of the Development. The outline drainage plan originally presented has now been superseded as a result of the Development design change. The changes to the site layout do not affect the conclusion of the Original ES section that “the risk to water quality has been assessed as negligible” as surface water and runoff from the concrete service yard in the north east part of the site will still be directed through a petrol interceptor before connecting into the surface water drainage, which discharges into the Severn Estuary. This will prevent contaminants potentially present on vehicles from entering controlled waters. No further changes to the Assessment of Effects section of the Original ES are required.

(viii) Cumulative Effects - Since the approval of the original planning application in July 2013, four new developments have been consented within 1 km of the Development. The addition of these developments has been taken into consideration when reassessing the cumulative impact of this development in Part 2 of this ES Addendum. These developments will not alter the assessments undertaken in this ES Addendum or the conclusions in the Original ES that the Development will result in no cumulative adverse impacts and an overall neutral to positive impact on the environment.

(ix) Alternatives – no additional scenarios are proposed as a result of the amendments to the development or any changes to the baseline and the existing scenarios as detailed in the original ES remain relevant, therefore this section does not require updating.

1.11 The proposed facility would require a permit from Natural Resources Wales in order to operate.

1.12 The agent has submitted a Waste Planning Assessment in accordance with the guidance contained with TAN 21 (Waste) (February 2014).

2. DESCRIPTION OF SITE

2.1 The application site comprises approximately 1.4 hectares of previously developed and currently vacant land adjacent to the Dwr Cymru Waste Water Treatment Site at Tide Fields Road. The majority of the site consists of hardstanding which previously accommodated a number of buildings, and a large parking area, associated with its previous use. At present the site contains a weighbridge utilised by Tankers associated with the waste water treatment works operations.

2.2 The Site is located within a predominantly industrial area, surrounded by various industrial / processing land uses. The neighbouring land uses in the vicinity of the site include the Celsa Steelworks facility, the SIMS Metal Management Recycling, Dwr Cymru's Waste Water Treatment Works, and a number of commercial units including a specialist builders' merchant, car dismantlers, and engine rebuild centre, ready-mixed concrete works and a steel fabricator.

2.3 The site is approximately 325 metres from the Severn Estuary nature conservation designations.

3. SITE HISTORY

3.1 13/00686/DCO: Permission granted in July 2013 for the construction of a 1.5MW anaerobic digestion facility, landscaping, and associated infrastructure.

3.2 97/01234/R: Planning permission granted for a revised layout of the waste water treatment works.

3.3 97/00262/R: Outline planning permission granted for the waste water treatment works.

3.4 96/00577/R: Outline planning permission granted for waste water treatment works and associated outfall.

4. POLICY FRAMEWORK

4.1 The site is located within an existing area of Business, Industry and Warehousing as defined in the City of Cardiff Local Plan.

4.2 Planning Policy Wales, Edition 7 (July 2014)

4.3 Technical Advice Notes (TANs):

5 Nature Conservation and Planning (2009)
8 Renewable Energy (2005)
11 Noise (1997)
12 Design (2014)
15 Development and Flood Risk (2004)
18 Transport (2007)
21 Waste (2014)
23 Economic Development (2014)

4.4 South Glamorgan (Cardiff Area) Replacement Structure Plan 1991-2011 (April 1997):

EV1 Towards Sustainable Development
EV2 Urban Regeneration
EV4 Pollution
E3 Protection of Business and Industrial Land
MV1 Location of New Developments
U3 Renewable Energy

4.5 City of Cardiff Local Plan (January 1996):

11 Design and Aesthetic Quality
17 Parking and Servicing Facilities
18 Provision for Cyclists
19 Provision for Pedestrians
20 Provision for Special Needs Groups
36 Alternative Use of Business, Industrial and Warehousing Land
37 Safeguards for Residential Amenity and Existing Industrial Areas or Operational Docks
39 Older Industrial and Commercial Areas
55 Other Waste Disposal Facilities

4.6 Deposit Unitary Development Plan (October 2003):

1A General Principles for the Location of Development
1B Achieving Good Design
1E The Economy and Employment
1H Sites of International or National Importance for Nature Conservation
1K Movement and Transport Priorities
1N Car Parking
1P Waste Management
2.20 Good Design
2.24 Residential Amenity
2.37 Change of Use of Industrial and Warehousing Land
2.46 Sites of International or National Importance for Nature Conservation
2.48 Biodiversity
2.57 Access, Circulation and Parking Requirements
2.58 Impact on Transport Networks
2.63 Contaminated and Unstable Land

2.64 Air, Noise and Light Pollution
2.73 Sites for Waste Management Facilities

4.7 Relevant Supplementary Planning Guidance:

Access, Circulation and Parking Standards (January 2010)
Trees and Development (March 2007)
Waste Collection and Storage Facilities (March 2007)
Locating Waste Management Facilities (2006)

4.8 National Policies:

Wales Spatial Plan (November 2004)
Environment Strategy for Wales (2006)
National Waste Strategy for Wales (2002) and Draft Strategy (2009)

4.9 Regional Policies:

South East Regional Waste Plan: 1st Review (October 2008)

5. INTERNAL CONSULTEES RESPONSES

5.1 The **Operational Manager, Transportation,** notes that the current proposals entail a total of only some 21 HGV movements per day to and from the site, and essentially replicate those approved under previous consent 13/00686/E with the exception of some minor revisions to the layout and parking arrangements. He has no objection subject to the re-imposition of conditions relating to a construction management plan, parking, cycle Parking and HGV Routes which were applied to the the previous consent.

5.2 The **Operational Manager, Contaminated Land,** has noted the contents of the revised Environmental Statement (ES), particularly Appendix 6.2 which contains a review of previous site investigation reports by SLR Consulting Limited dated 15th January 2015. Based upon this revised ES he notes that an updated ground risk assessment has been undertaken which has identified the site as low risk, with the following recommendations:

(i) Reinforced concrete cast *in situ* floor slab (suspended, non-suspended or raft) with at least a 1200g damp proof membrane; Beam and block or pre cast concrete slab and minimum 2000g damp proof membrane/reinforced gas membrane;
(ii) Possibly underfloor venting or pressurisation in combination with a) and b) depending on use; and
(iii) All joints and penetrations to be sealed.

5.3 The land contamination assessments for this development have not identified any significant issues in terms of soil or groundwater contamination and thus there is no real requirement for remediation. The only issue identified is the presence of asbestos fibres in a number of soil samples. There is a risk that such material will be mobilised as part of the works when excavated materials

are exposed and placed in areas of future bunds. As such it will be necessary and as recommend by SLR in appendix 6.3, for a Materials Management Plan to be utilised to ensure any risks from asbestos exposure are minimised. Therefore relevant conditions are requested to ensure such a document is provided and is acceptable to the LPA. He recommends relevant conditions be attached to any permission that may be granted.

5.4 The Council's **Tree Officer** advises that the submitted topographic survey and his records suggest the presence of trees and/or large shrubs within and bounding this site that he considers may be material to the application. He notes the ecological report refers only to some immature white poplars within the site although aerial images suggest the presence of trees bounding the site.

5.5 The **Operational Manager, Waste Management,** notes that the site will be monitored by NRW Waste Management and therefore she has no observations or objections with respect to the above numbered application.

5.6 The **Council's Ecologist** confirms that his comments remain as per the previous permission (13/00686/DCO).

5.7 The **Operational Manager, Drainage Division,** has been consulted. No objections have been received. Any comments received will be reported to Committee.

5.8 The **Operational Manager, Environment (Noise & Air)** initially expressed some concerns regarding odour abatement and the potential for cumulative odour in combination with the adjoining Welsh Water Sewerage Treatment Works. She originally requested an odour management plan in order to protect the amenities of nearby sensitive receptors. The agent has provided a detailed response to address these concerns and any further comments will be reported to Committee.

6. **EXTERNAL CONSULTEES RESPONSES**

6.1 **Welsh Water** recommends relevant conditions and advisory notes be attached to any permission granted to ensure no detriment to existing residents or the environment and to their assets.

6.2 The **Glamorgan Gwent Archaeological Trust** advise that information in the Historic Environment Record notes that the OS maps of the late 19th and early 20th centuries show the application area to be on the seaward side of the High Water Mark; the land has been reclaimed from the mid 20th century onwards. The supporting information mentions that the area was previously the site of buildings, now cleared and the land surface landscaped. In connection with the WWTW pipe, in the late 1990s, a fish trap dating to the 19th century was identified and recorded, although this was some 0.5km seaward. It is their opinion that it is unlikely that archaeological remains would be encountered during the proposed development and that therefore no mitigation is proposed. They advise that it is possible that evidence of archaeological activity may be found during the work required and request to be contacted if this occurs.

6.3 **Natural Resources Wales** have confirmed that they have no objection to the proposed development. They have been consulted on the submitted Waste Planning Assessment and any comments received will be reported to Committee.

7. REPRESENTATIONS

7.1 Local Members were consulted. Any responses received will be reported to Committee.

7.2 The proposals were advertised in the press and by site notice on 2nd April 2015 as a major development accompanied by an Environmental Statement. No representations have been received.

7.3 Neighbouring occupiers have been consulted. No representations have been received.

8. ANALYSIS

8.1 The principle of the proposed use on this previously developed site has been established by virtue of Committee's previous decision to grant planning permission in July 2013 for a 1.5MW anaerobic digestion facility (ref: 13/00686/DCO, see appended committee report). Therefore, the key issues for the consideration of this application are the acceptability of the proposed changes to the consented scheme.

8.2 Members are advised to note that the annual tonnage of waste to be disposed of at the plant has not increased above that which was previously approved (35,000 tonnes). Each of the proposed changes to the consented scheme are assessed as follows:

(i) Use of Piled Foundation – subject to relevant conditions, no objections have been received from the Council's Contaminated Land Team or Natural Resources Wales. Relevant conditions are recommended;
(ii) Increase in site levels by 0.25m – the proposed change is considered to be acceptable;
(iii) Increase in footprint size of combined heat and power plant, biofilter plant and heat exchanger – these changes are considered to be acceptable in the context of the scale of the development;
(iv) Re-siting of biofilter plant, pasteurisation tank and reception tank, digestate storage and fermenter plant – these changes are considered to be acceptable in the context of the scale of the proposed development;
(v) The introduction of a bund wall to the southern boundary is considered to be acceptable;
(vi) Change in location of the transformer, flare and cycle storage is considered to be acceptable;
(vii) Minor elevation alterations to the office building and the additional of an access ramp are considered to be acceptable;
(viii) Re-location of car parking spaces is considered to be acceptable;

(ix) New below ground surface water drainage tank is considered to be acceptable. No objections have been received. A relevant condition is attached;

(x) Elevational changes to the waste reception building are considered to be acceptable.

8.3 There is no change to the quantum of waste to be treated per annum. It is noted that the Operational Manager, Transportation, has no comments on the proposed development. Relevant conditions are attached.

8.4 The site is located approximately 325 metres to the west of the Severn Estuary, which is a European designated Special Area of Conservation (SAC), Special Protection Area (SPA) and also a nationally significant Site of Special Scientific Interest (SSSI) and Ramsar site. The specific risks to the designated sites relate to impact from water pollution (site drainage and contamination release during construction, and site drainage during operation) and from air emissions during operation of the proposed development. Neither Natural Resources Wales nor the Council's Ecologist consider that the proposed amendments are likely to have a significant effect upon the Severn Estuary designations.

8.5 The agent has responded to the concerns raised by the Operational Manager, Environment (Noise & Air) (paragraph 5.8), regarding the need for odour abatement. He confirms that odour control is embedded within the design of the reception building. A bio-filter is included in the proposals to treat the air from within the building to result in no detectable odour outside the building. The Environmental Statement (ES) found that odour levels are well below the agreed thresholds and therefore cumulative odour caused by the addition of the AD facility to the existing baseline is unlikely to be an issue. Finally, he confirms that odour will be covered in depth in the environmental permit application. No further comments have been received from the Operational Manager, Environment (Noise & Air) in response.

8.6 It is considered that the proposed development would continue to comply with waste and renewable energy policy at both a national and local level, and provides an efficient re-use of previously-developed land.

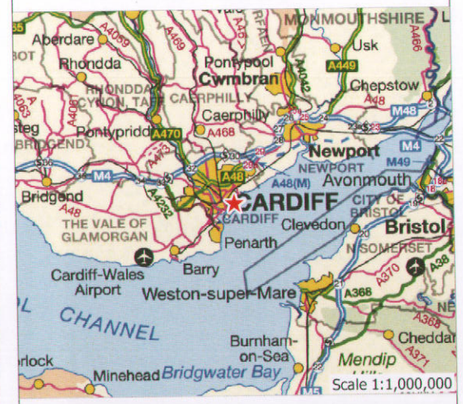
8.7 It is noted that the development would achieve environmental, social and economic benefits. The Development seeks to minimise environmental effects, by way of maximising the use of waste as a resource and proposing a design which minimise effects on the local area. Social benefits would arise as the Development would directly deal with the waste of the city, and the economic benefits would arise by way of employment and investment.

8.8 The ES Addendum has fully assessed the likely environmental effects of the development, and, subject to mitigation, the development is unlikely to have significant effects on the environment. Having taken the environmental information into consideration, it is recommended that planning permission be granted, subject to relevant conditions.

Kelda ORGANIC ENERGY

ARCUS

Site Boundary



1:10,000 Scale @ A3

0 200 400 m

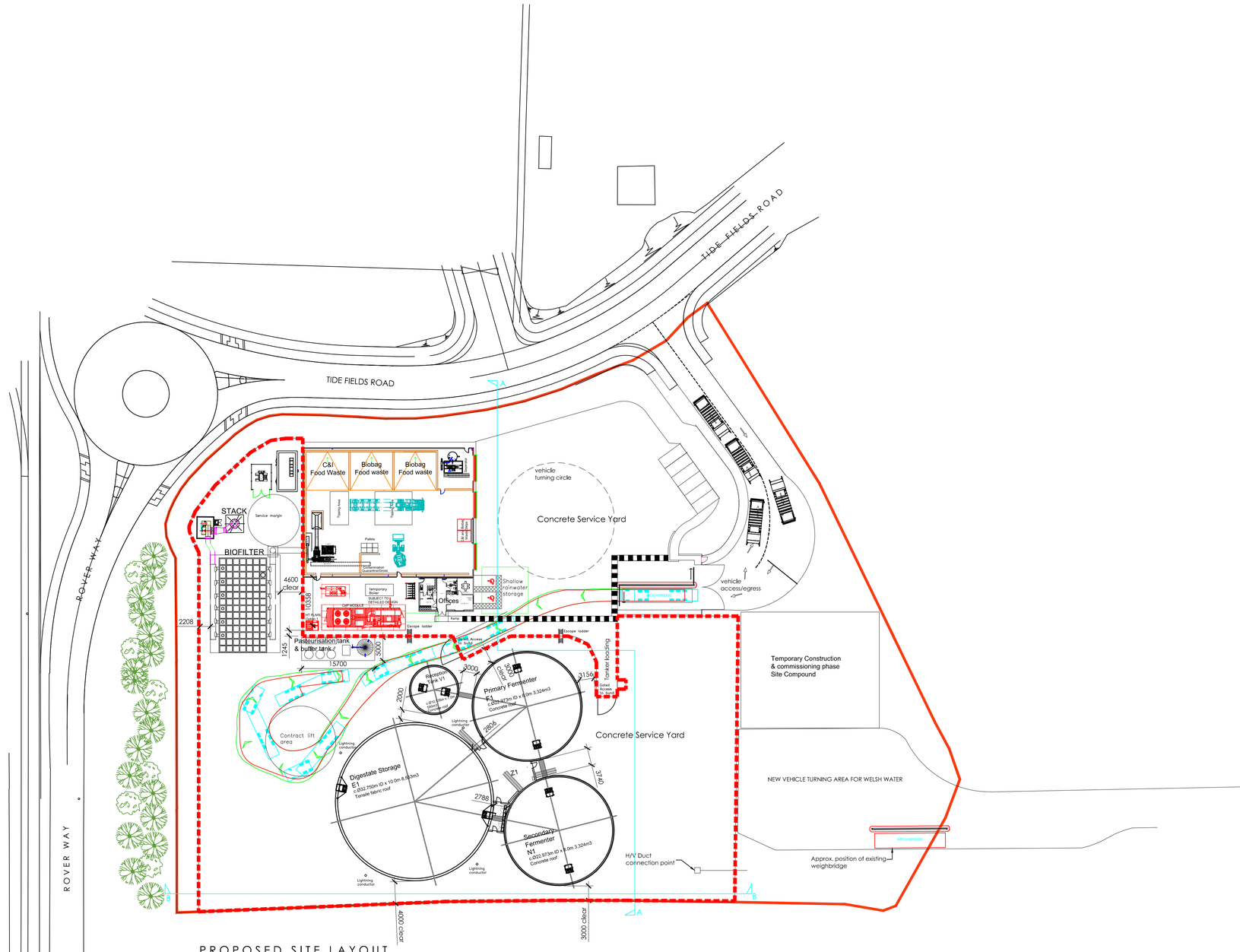
N

Produced: TC Reviewed: RMc Approved: DH	Ref: 1875/REP/001 Date: 16/02/2015

Site Location
Drawing 001

Cardiff (Tremorfa)
Waste Water Treatment Works
Planning Application

N:\Projects\1875 Cardiff AD and OWC\Document Files\Reports\Planning Application\Dwg001_SiteLocation.mxd



PROPOSED SITE LAYOUT

SCALE 1:500

N E W S

NOTES

DO NOT SCALE THIS DRAWING.

LAYOUT & LOCATION OF LIGHTNING CONDUCTORS AND FINIALS POSITION SUBJECT TO DETAILED DESIGN.

FLUE COORDINATES :

STACK	X=321121.810m Y=176027.371m
HT FLARE	X=321125.521m Y=176000.532m
CHP	X=321136.634m Y=175995.392m

LEGEND

SITE BOUNDARY

BUND WALL

Revision	By	Chk'd By	Date	Comments
P10	IMR	TY	13.03.15	MINOR AMENDMENTS REQUESTED BY ARCUS
P9	PS	TY	18.02.15	OCR TEXT REMOVED. ESCAPE LADDER MOVED.
P8	PS	TY	17.02.15	GENERAL UPDATE.
P7	PS	TY	16.02.15	GENERAL UPDATE.
P6	PS	TY	12.02.15	BUILDING INTERIOR UPDATED.
P5	PS	TY	11.02.15	FLUE COORDINATES, GENERAL UPDATE.
P4	PS	TY	10.02.15	ROLLER DOOR MOVED, CROSSING CLARIFIED.
P0	PS	TY	09.02.15	FIRST ISSUE.

SLR

TREENWOOD HOUSE
ROWDEN LANE
BRADFORD-ON-AVON
WILTS. BA15 2AU
T: 01225 309400
F: 01225 309401
www.slrconsulting.com

Client
CARDIFF ORGANICS

Project
TREMORFA

Drawing Title
PROPOSED SITE LAYOUT

Scale
1:500 @ A1

Date
MARCH 2015

Drawing Number
SK-009

Revision
P10

PRELIMINARY

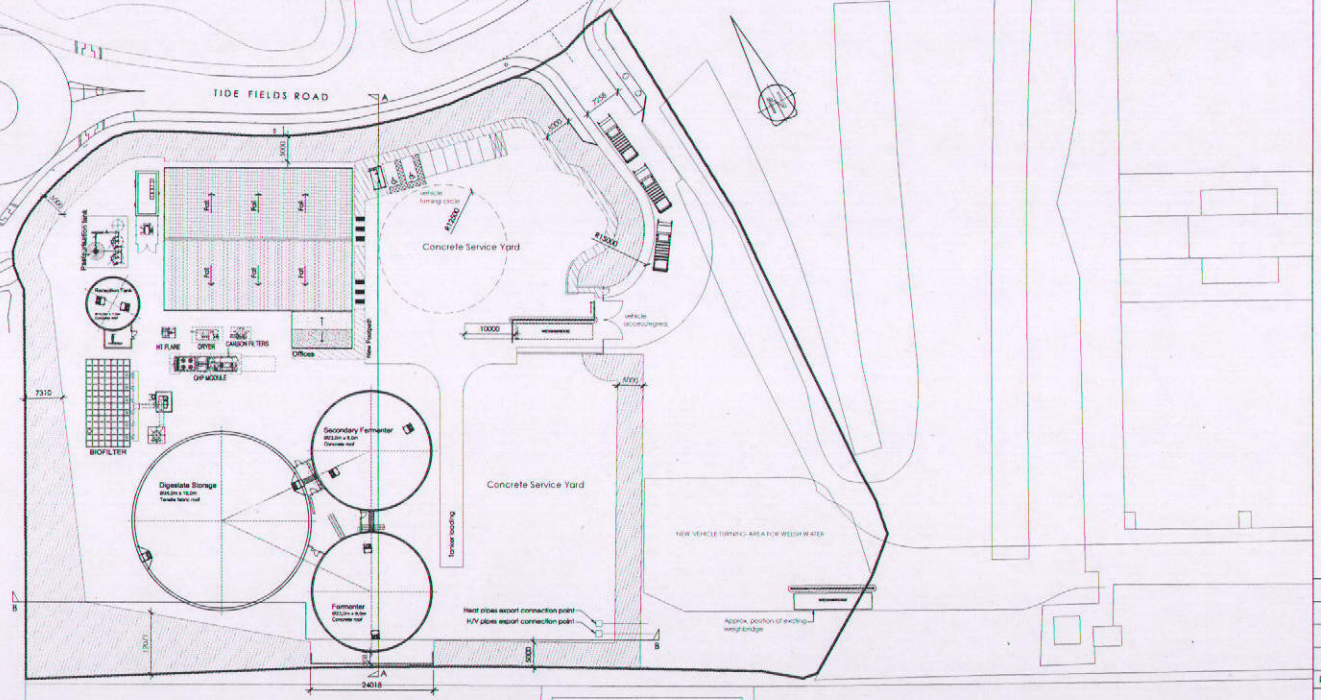
0 5 10 15 20m 30 40 50
Metres
1:500

0402.000083.03 sk-009 P10 UPDATED BASELINE SITE DRAWING OPTION_D1.dwg

DRAWING NUMBER 167.100.1000

Ref– Drawing No.

KEY:
RED LINE DENOTES EXTENT OF SITE BOUNDARY
(Approx 16,520 m² / 4.08 Acres)



PROPOSED SITE LAYOUT
SCALE 1:500

REV	DESCRIPTION	DATE	BY	CHKD	APP
R4	Revised generally as per e-mail comments 2013 04 10	10/04/13	RL	TJ	-
R3	Bio filter size increased	12/03/13	RL	TJ	-
R2	Layout updated to suit site topographic survey	25/03/13	RL	TJ	-
R1	Design review issue; Leachate Tank added/ Tanker loading/cycle, car & mbike parking	12/03/13	RL	TJ	-

teg

ORIGINATOR

PROJECT
TEG BIO-GAS

CARDIFF WWTP
Proposed Site Layout

DRAWING TITLE

DRAWING STATUS
FOR ISSUE

DRAWN R Leppington | CHECKED S. Entwistle | APPROVED D McSHEEN | DATE 04/12/12

SCALE 1-500 @ A1 | DRAWING NUMBER 167.100.1000 | REV (AI) R4

CAD REF

BACKGROUND TO THIS NTS

This Non-Technical Summary Addendum ('the NTS Addendum') has been prepared to accompany an application by Kelda Organic Energy Ltd under the Town and Country Planning Act 1990[1] for planning permission for a 2 MW anaerobic digestion facility, including landscaping and associated infrastructure at the Welsh Water Treatment Works site at Tremorfa, Cardiff.

As identified in the accompanying Environmental Statement Addendum (ES Addendum), Cardiff County Council previously granted planning permission for a 1.5 MW anaerobic digestion facility (Ref: 13/00686/DCO) on the same site on 18th July 2013; however, as a number of design amendments (notably an increase in generation capacity to 2 MW and a revised foundation construction method of piled foundations) are proposed, it was determined that a new planning application and an addendum to the original Environmental Statement, as well addenda to other supporting documentation, was required.

This NTS Addendum cross references the Original NTS as required to avoid repetition, thus this NTS Addendum, is intended to be read with the Original NTS.

Table 1 provides details of the main construction elements and identifies the amendments proposed:

Table 1: Proposed amendments to the Consented Development

Element of the Development	As approved under planning permission 13/00686/DCO	As proposed under this planning application and assessed in the ES Addendum	Reason for Change
Landform	Site level increase approximately up to 1.2 m	Site level increase approximate up to 1.45 m (0.25 m increase).	Due to ground conditions.
Type of Foundation Design for Digestate and Fermenter Tanks	Raft	Piled	Due to ground conditions.
Main Process Building / Waste Reception Building	Pitched roof corrugated sheet construction to a height of 13.25 m. Two roller shutter doors in the south east elevation.	The size and height of the building is the same as 13/00686/DCO. Three roller shutter doors in the south east elevation.	To allow access to the separator for maintenance and disposal of material.
Proposed Office Building	Flat roofed single storey office building.	Addition of access ramp, minor changes to door/window positions and internal layout. The size of the building is the same as 13/00686/DCO. No direct access between office and waste reception building.	Improved accessibility and safety.

[1] Town and Country Planning Act 1990, Town and Country Planning 1990, HMSO

Element of the Development	As approved under planning permission 13/00686/DCO	As proposed under this planning application and assessed in the ES Addendum	Reason for Change
Biofilter and Stack	Rectangular structure cited between the waste reception building and the digestate storage tank, with adjacent stack.	Slight increase in footprint size of biofilter and relocation north towards waste reception. No change to stack height.	To aid dispersion of residual pollutants and to improve odour treatment and further mitigate emissions to neighbours.
Digestate and Fermenter Tanks	Three circular tanks (digestate tank 34 m diameter and 10 m height, Fermenter tanks 23 m diameter and 8 m in height), located near the south boundary.	Tanks slightly re-orientated and moved approximately 8 m east. Reduction of diameter of digestate tank by 1 m. Four telescopic lightning finials (25 m in height) sited around digestate tank.	To allow for improved accessibility for construction and maintenance. To protect the tanks from damage caused by lightning strikes.
Reception Tank	Sited between biofilter and waste reception building	Sited between digestate tank and waste reception building.	To allow for improved accessibility for construction and maintenance.
Transformer	Sited between waste reception building and pasteurisation tank.	Sited adjacent to switchroom.	To allow for improved accessibility for construction and maintenance.
Flare	Sited between CHP plant and waste reception building	Slight relocation to adjacent CHP plant.	To allow for improved accessibility for construction and maintenance.
Combined Heat and Power Plant	Sited south of waste reception building	Same location. Increase in footprint size due to increase in power rating to 2MW.	Increased production of green energy from the same level of feedstock.
Pasteurisation system	Sited west of waste reception building. Square footprint.	Sited between CHP plant and digestate tank. Rectangular footprint, with addition of buffer tank.	To improve process efficiency.
Dryer/Booster/Chiller	Sited adjacent to the waste reception building.	Slight relocation, although still adjacent to the waste reception building.	To allow for improved accessibility for construction and maintenance.

Element of the Development	As approved under planning permission 13/00686/DCO	As proposed under this planning application and assessed in the ES Addendum	Reason for Change
Landscaping and Bunding	Mounded grassed landscaping mound proposed around site boundary.	Mounded grassed landscaping mound proposed around site boundary, apart from south boundary which would be enclosed by 1.95 m bund wall. Internal 1.95 bund wall also proposed to enclose the tanks and biofilter/stack.	Better engineering solution to comply with the requirements of CIRIA 736: Containment Systems for the Prevention of Pollution to provide bunding and prevent environmental impact in case of leakage.
Vehicular Access	Accessed from Tide Fields Road	Revised access road alignment, widened turning area into the site.	Improved safety of access / egress to the site.
Weighbridge	Proposed inside of internal access gates.	No change.	N/A
Vehicular Circulation Space	Concrete service yard to east of waste reception building, and car parking spaces.	No change, save for relocation of car parking spaces around service yard. Same number of car parking spaces New contract lift area shown for vehicles between the digestate storage tank and the pasteurisation tank	Improved safety of access / egress to the site. The disabled parking has been proposed to be move closer to the accommodation building and the remainder of the parking will be relocated to improve safety of pedestrian routes.
Vehicle Turning Area for Welsh Water	Proposed adjacent south-east boundary of the site.	No change.	N/A
Cycle Storage	None	Sited adjacent office building.	To improve sustainability of travel to site and to fulfil the requirements of Condition 11 to the original consent.
Rainwater Storage Tank	None	Below ground tank under the service yard.	To improve sustainability of the anaerobic digestion process by using grey water in place of potable supply, and to ensure the efficacy of the approved drainage scheme.
Construction Compound (temporary)	Not shown.	Sited between the internal access, service yard and vehicle turning area for Welsh Water, adjacent east boundary of the site.	To define where the temporary construction compound will be located.

COMMITTEE DATE: 17/07/2013

APPLICATION No. 13/686/DCO APPLICATION DATE: 16/04/2013

ED: **SPLOTT**

APP: TYPE: Full Planning Permission

APPLICANT: Kelda Organic Energy
LOCATION: CARDIFF WASTE WATER TREATMENT WORKS, TIDE FIELDS ROAD, EAST MOORS, CARDIFF, CF14 2RX
PROPOSAL: CONSTRUCTION OF A 1.5 MW ANAEROBIC DIGESTION FACILITY, LANDSCAPING AND ASSOCIATED INFRASTRUCTURE

RECOMMENDATION 1: That planning permission be **GRANTED** subject to the following conditions:

1. C01 Statutory Time Limit

2. Prior to commencement of development a scheme of construction management shall be submitted to and approved by the Local Planning Authority to include details of construction traffic routes, site hoardings, site access, wheel washing facilities and parking of contractors vehicles. The development construction shall be managed strictly in accordance with the scheme so approved.
   Reason: In the interests of highway safety and public amenity.

3. D7Y Landfill Gas Protection

4. E7Z Imported Aggregates

5. D7Z Contaminated materials

6. Prior to the commencement of development the following shall be submitted to and approved in writing by the Local Planning Authority:

   (i) An assessment of the nature and extent of contamination. The report of the findings shall include a desk top study to identify all previous uses at the site and potential contaminants associated with those uses and the impacts from those contaminants on land and controlled waters; an intrusive investigation to assess the extent, scale and nature of contamination which may be present; an assessment of the potential risks, and; an appraisal of remedial options, and justification for the preferred remedial option(s).

   (ii) A detailed remediation scheme and verification plan to bring the site to a condition suitable for the intended use by removing any unacceptable risks to human health, controlled waters, buildings,

other property and the natural and historical environment. The scheme shall include all works to be undertaken, proposed remediation objectives and remediation criteria, a timetable of works and site management procedures.

The approved remediation scheme shall be fully undertaken in accordance with its terms prior to the occupation of any part of the development unless otherwise agreed in writing by the Local Planning Authority. The Local Planning Authority must be given two weeks written notification of commencement of the remediation scheme works. Within 6 months of the completion of the measures identified in the approved remediation scheme, a verification report that demonstrates the effectiveness of the remediation carried out must be submitted to and approved in writing by the Local Planning Authority.
Reason: In the interests of pollution prevention.

7. In the event that contamination is found at any time when carrying out the approved development that has not previously been identified in the scheme approved by virtue of condition 7 above it must be reported in writing to the Local Planning Authority within 2 days of its discovery and all associated works shall stop. No further development shall take place unless otherwise agreed in writing and a scheme of investigation and risk assessment shall carried out to establish whether remediation further to that approved by condition 7 above is necessary. In the event that such further remediation is necessary a further remediation scheme and verification plan shall be prepared and submitted to the Local Planning Authority for its approval in writing. Thereafter the remediation and verification shall be carried out in accordance with the approved scheme. Following completion of measures identified in the approved further remediation scheme a verification report shall be submitted to the Local Planning Authority for its approval in writing. A timescale for the above actions shall be submitted to LPA within 2 weeks of the discovery of any unsuspected contamination.
Reason: In the interests of pollution prevention.

8. Any excavated material including soils, aggregates, recycled materials shall be assessed for chemical or other potential contaminants in accordance with a sampling scheme which shall be submitted to and approved in writing by the Local Planning Authority in advance of the reuse of site won materials. Only material which meets site specific target values approved by the Local Planning Authority shall be reused.
Reason: To ensure that the safety of future occupiers is not prejudiced in accordance with policy 2.63 of the Cardiff Unitary Development Plan.

9. No development shall take place until a method statement detailing how surface water and land drainage flows will be controlled without causing nuisance or flooding to adjacent land and highways during the construction period has been submitted to and approved in writing by the local planning authority. Development shall be carried out in accordance with the approved details.

Reason: To ensure an orderly form of development.

10. The car / motorcycle parking spaces and vehicle turning areas (including that which has been indicated for Welsh Water purposes) shown on the approved plans shall be provided prior to the development being brought into beneficial use and thereafter shall be maintained and shall not be used for any purpose other than the parking and turning of vehicles. Reason: To ensure that the use of the proposed development does not interfere with the safety and free flow of traffic passing along the highway.

11. C3S Cycle Parking

12. Prior to first beneficial use of the development hereby approved details of the footway improvement works between the site entrance and the adopted highway (as illustrated on drawing No. 167.100.1000) shall be submitted to and approved in writing by the Local Planning Authority. These works shall include new footway construction together with the resurfacing of the existing footway as required. Those details shall be implemented prior to the development being put into beneficial use.
    Reason: To facilitate the safe movement of pedestrians.

13. Prior to first beneficial use of the development hereby approved details of the HGV vehicle routes, to and from the approved anaerobic digestion facility, shall be submitted to and approved in writing by the Local Planning Authority. The routing of vehicles shall be managed strictly in accordance with the plan so approved.
    Reason: To ensure that no bulk vehicles associated with the development use residential streets to access the facility.

14. The mitigation measures set out in paragraphs 8.101 to 8.112 of the Ecology and Nature Conservation section of the Environmental Statement shall be fully implemented as detailed within the submitted document.
    Reason: In the interests of nature conservation and the protection of the protected Severn Estuary designations.

15. The drainage scheme as shown on the submitted drawing (no. 167.11.1006) shall be implemented as approved, and shall be maintained thereafter.
    Reason: To ensure an orderly form of development.

16. The approved Anaerobic Digestion facility shall process up to a maximum of 35,000 tonnes per annum, as stated within the planning application.
    Reason: The application has been assessed on this basis.

RECOMMENDATION 2: The contamination assessments and the affects of unstable land are considered on the basis of the best information available to the Planning Authority and are not necessarily exhaustive. The Authority takes due diligence when assessing these impacts, however you are minded that the responsibility for

(i) determining the extent and effects of such constraints and;
(ii) ensuring that any imported materials (including, topsoils, subsoils, aggregates and recycled or manufactured aggregates / soils) are chemically suitable for the proposed end use. Under no circumstances should controlled waste be imported. It is an offence under section 33 of the environmental Protection Act 1990 to deposit controlled waste on a site which does not benefit from an appropriate waste management license. The following must not be imported to a development site:
- Unprocessed / unsorted demolition wastes.
- Any materials originating from a site confirmed as being contaminated or potentially contaminated by chemical or radioactive substances.
- Japanese Knotweed stems, leaves and rhizome infested soils. In addition to section 33 above, it is also an offence under the Wildlife and Countryside Act 1981 to spread this invasive weed; and

(iii) the safe development and secure occupancy of the site rests with the developer.

Proposals for areas of possible land instability should take due account of the physical and chemical constraints and may include action on land reclamation or other remedial action to enable beneficial use of unstable land.

The Local Planning Authority has determined the application on the basis of the information available to it, but this does not mean that the land can be considered free from contamination.

RECOMMENDATION 3: That the applicant be advised to contact Tony Jones of Highway Operations, Brindley Road, prior to undertaking the works associated with the footway improvement works conditioned above, in order to obtain the necessary licence and to agree the specification for the works.

RECOMMENDATION 4**:** It is advised that public transport and non-car mode information is provided by the facility in order to encourage more sustainable modes of travel. Liaison with Nick Peers of Transport Policy can be sought to help achieve this.

1. DESCRIPTION OF PROPOSED DEVELOPMENT

1.1 The application is for the construction of a 1.5 MW anaerobic digestion facility, landscaping and associated infrastructure. The application is the subject of an Environmental Statement and includes the following topics:

(i) Noise Impact Assessment
(ii) Contaminated Land Risk Assessment
(iii) Flood Consequences Assessment
(iv) Ecology
(v) Air Quality Assessment
(vi) Transport Statement
(vii) Socio Economic Impacts

(viii) Landscape and Visual Appraisal
(ix) Cumulative Effects
(x) Alternatives
(xi) Mitigation Measures

1.2 The Welsh Government has set a national target to recycle 70% of all waste by 2025. In response to this target, the Cardiff Organic Waste Treatment Project has been created to source suitable technologies to treat Cardiff's source-separated food and green/garden waste collected from the kerbside, household waste sites, parks/gardens and businesses. The proposal is part of a competitive bid submission by the applicant and the project has been developed in response to the overarching waste strategy for Wales entitled 'Towards Zero Waste', which sets challenging interim targets focused on achieving high levels of recycling and composting as well as exceeding the European Union landfill diversion rates.

1.3 With the project in mind the applicant proposes to build and operate a state of the art facility to treat food waste using proven anaerobic digestion technology on vacant land at Dwr Cymru's Waste Water Treatment Works at Tide Fields Road, Cardiff.

1.4 The Anaerobic Digestion (AD) facility uses a series of processes in which microorganisms convert biodegradable material into green energy (Biogas) and a fertiliser (Digestate).

1.5 The facility would process up to 35,000 tonnes of food waste per annum which would in turn generate the production of 1.5 MW of 'green electricity', along with nitrate and potash rich bio-fertiliser, that can be utilised on local farm land.

1.6 The energy produced would be used to power the AD facility and enable transmission to the adjacent Dwr Cymru Waste Water Treatment Works, offsetting the need to export electricity from the national grid.

1.7 The proposed facility would require a permit from Natural Resources Wales in order to operate.

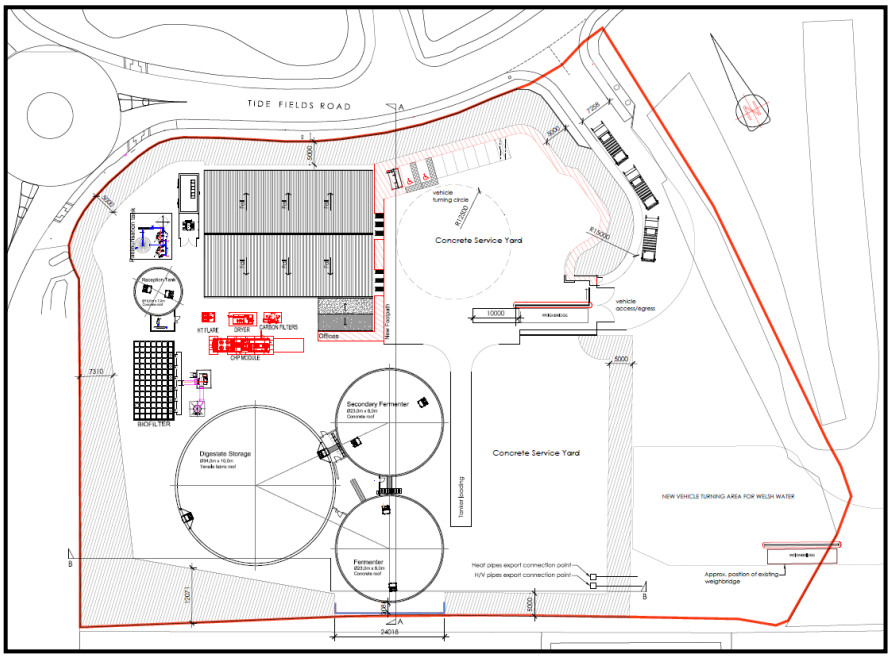
1.8 The total floorspace of the proposed development is 3573.5 m^2. The proposed development will comprise the following elements:

- Reception Hall Building/Office (1117 m^2) – maximum height of 13.2 metres.
- 2 x Fermenter Tanks
- Digestate Storage Tank
- Weighbridge
- Control Room (62 m^2)

(1952 m^2) Maximum height 16.6 metres

- Pasteurisation Tank (90 m^2)
- Reception Tank (111 m^2)
- Biofilter (130 m^2) and Stack (23 m^2)
- CHP Module (56 m^2)

- HT Flare (6.2 m^2), Dryer (18 m^2) and Carbon Filters (8.3 m^2)



1.9 The existing access point from Tide Fields Road will be retained in order to serve both staff (accessing the site by foot, bicycle or car), and operational HGVs associated with the proposed facility. A dedicated internal access road will be constructed to facilitate movement from the existing access point at Tide Fields Road to the site entrance. The new access road will also be suitable for the two-way operation of HGV vehicles to and from the site.

1.10 A total of eight parking spaces will be provided, including two mobility spaces, one visitor parking bay, one car-share bay and four standard spaces. Provision will be made for sheltered parking for up to five bicycles, supported by the provision of internal changing / shower facilities.

1.11 Anaerobic Digestion Process and Feedstock

The Anaerobic Digestion is a method of waste treatment that produces a gas with high methane content from organic materials and food wastes. It is the natural biological breakdown of organic materials in the absence of oxygen. The process produces two principal products:

- Biogas (Natural Gas)
- Bio-fertiliser

1.12 The biogas typically consists of 60% methane and 40% carbon dioxide and is combusted to recover its energy in the form of renewable electricity and heat. The biogas produced from the anaerobic digestion process will power a generator that will enable the production of approximately 12,200 kWh/a of electricity, both powering the AD Facility and transmission to the adjacent

DCWW Waste Water Treatment Works, offsetting the need to export electricity from the National Grid.

1.13 The bio-fertiliser produced has a high nutrient content and will be spread directly on to local farmland as a direct replacement for the fossil fuel manufactured, imported chemical fertilisers currently used in farming. Due to the seasonal nature of applying fertilisers to farmland, a digestate storage tank will be required to hold the bio-fertiliser until it is required.

1.14 The Facility has been designed to meet the EU standards of the Animal By-Products Regulations and BS PAS110 Quality Protocol and will continue to be regulated throughout the life of the contract. This also ensures a strict quality of the bio-fertiliser produced for agriculture.

1.15 AD plants are able to process a range of biodegradable waste materials, including food waste, in a safe and stable manner. The proposed AD Facility is designed to process food waste material only. The maximum throughput of the AD Facility is 35,000 tonnes per annum of organic waste, generating 1.5MW of green electricity, and will also produce nitrate potash rich bio-fertiliser for use by local agricultural enterprises as an alternative to existing manufactured fertiliser. The AD Facility will process, principally, collected municipal food waste with a small element of commercial food waste to ensure throughput efficiency.

1.16 The waste to be processed through the AD Facility will help reduce the amount of waste currently sent to landfill. The collection of source segregated food waste is a method employed by a number of local authorities, including Cardiff, to collect and recycle food waste that would otherwise be put into residual refuse. Such collections will form the majority of the food waste processed through the facility.

1.17 The feedstock (food waste) for the AD Facility will be fed by direct delivery into the reception building predominantly from Authority refuse collection vehicles under contract. All deliveries will be made by refuse collection vehicles or vehicles with the loads covered and sealed or by tankers. All deliveries coming on to the Site will be licensed and subject to the waste haulers Duty of Care requirements, which ensure that the loads are covered and transported safely.

1.18 Incoming waste vehicles will arrive into the Site and report to the dedicated weighbridge located in the east of the Site where details contained in the Waste Transfer note will be recorded against the vehicle registration number and the load weight. The incoming waste vehicles will be directed to the reception/processing building. There will be no direct public access or delivery of waste to the facility.

1.19 The organic material will then be delivered directly into the enclosed Waste Reception building, where the material will be sorted, macerated and then fed directly into enclosed tanks to begin the anaerobic digestion process. The anaerobic digestion process is set out below in the next sub-section.

1.20 The submitted Environmental Statement reaches the following conclusions:

(i) Noise Impact Assessment

With the application of appropriate mitigation measures, it is considered that all significant noise issues associated with the construction phase of the works can be controlled and minimised to acceptable levels. Assessments have identified that the temporary increase in noise from construction traffic will not represent a significant adverse impact.
The predicted operational phase noise levels around the perimeter of the application site have been compared against the corresponding noise levels measured during the baseline survey, to establish if there will be a significant increase in noise when the facility is operational. This comparison has identified that the predicted noise levels are not significantly higher than the existing noise climate, and therefore would not represent a significant adverse impact.
The predicted operational phase noise levels have also been assessed at the nearest sensitive receptors. There will be no adverse impacts experienced at the surrounding residential receptors; this is a function of the significant propagation distances from the site boundary, together with the existing noise climate.

(ii) Contaminated Land Risk Assessment

A qualitative risk assessment for contaminated land has been undertaken for the construction and operational phase.

Evidence of potentially contaminating historical land uses have been identified at the site, principally involving the reclamation of the site by infilling with blast furnace slag and associated activities such as use of railway tracks which extended beyond the development site boundary. It is also possible that other material could have been imported to the site for use as fill and previous ground investigation at the site has identified the presence of other material such as concrete, brick, metal, and timber.
No potentially significant effects have been identified relating to designated geological sites or hydrogeological issues for the proposed development. Although a requirement for mitigation has been identified, it is unlikely that remediation of contamination will be required at the site to protect the environment as for the proposed development. It will be necessary to protect workers and prevent migration of contaminants as dust/vapours or run-off during any excavations in this part of the site and subsequent soil stockpiling by implementing mitigation measures. Where removal of any residual contamination is undertaken during the construction works, this would have a beneficial effect on the ground conditions.

(iii) Flood Consequences Assessment

This Section has considered the flood risk to the application site, the

potential impact of the proposed development on the downstream flood risk, and the potential impacts to water quality as a result of the development. The flood risk to the site during the construction and operational phases has been assessed as low and the proposed site use has been determined as appropriate for Floodzone B. The proposed development poses non increased risk of flooding downstream for the construction or operational phases, assuming incorporation of the mitigation included in the design. No further mitigation was recommended. The proposed development poses a negligible risk to water quality for the construction phase assuming construction best practice is followed, and a CEMP is implemented to current industry standards. The proposed development poses a low risk to water quality for the operational phase as a result of mitigation measures incorporated into the design. No further mitigation is therefore, proposed. Therefore, the development will not result in significant adverse impacts on surface water quality and flood risk, and the incorporated mitigation measures are deemed sufficient given the environmental context of the site.

(iv) Ecology

The assessment was based on a combination of desk-based consultation, an Extended Phase I Habitat Survey (IEA, 1995; JNCC, 2010,) and a number of specialist assessments (in particular Noise, Air Quality and Hydrology Assessments). It includes an evaluation of the potential ecological impacts of the proposed development through construction and operation. Assessment of the potential ecological impacts is based on estimates of the likely magnitude of impacts and the value of the ecological receptors

The proposal was assessed in terms of its potential for impact in terms of Noise and visual disturbance and lighting, air emissions and hydrology both during construction and during the operational phase of the development. It was considered unlikely that there would be any significant negative impacts on the designated qualifying habitats of the Severn Estuary.

(v) Air Quality Assessment

The following emissions were considered in the impact assessment:

(i) Dust arising during the construction phase and handling and processing of waste materials, and the potential to cause nuisance;
(ii) Odours arising during the handling and processing of waste and the potential to cause nuisance;
(iii) Emissions from the CHP unit and High Temperature Flare and the potential to affect local pollutant concentrations; and
(iv) Exhaust emissions from vehicles travelling to and from the site during construction and operation and the potential to affect local pollution concentrations.

It Concludes

Dust

The Severn Estuary was identified as a high sensitivity receptor due to its designation as a European protected site. The impact significance for dust post mitigation for the construction and operational phases on the Severn Estuary were assessed as negligible. No residual impacts are anticipated from the impacts of dust deposition on sensitive receptors providing that the relevant dust control measures are implemented.

Odour

No impact is expected on the nearest residential and commercial properties as a result of odour emitted from the bio filter stack. The risk of odour from other sources was assessed as negligible. Therefore no mitigation was proposed and there are no significant residual impacts.

Emissions from Point Sources

The impact significance from air pollutants from point sources as a result of the proposed development were assessed as negligible both for impacts to human and ecological receptors.

Emissions from Vehicles

The impact of emissions from vehicles was assessed as imperceptible for both the construction and operational phases of the proposed development. No mitigation is proposed and no residual effects are anticipated.

(vi) Transport Statement

Provides an assessment of the impact of the proposed traffic generation to/from the site during the construction and operation phase, with mitigation measures outlined where appropriate. The main transport impacts will be associated with the movements of Heavy Goods Vehicles (HGVs) – vehicles exceeding a gross vehicle weight of 7.5t.

It assesses the likely significant impacts of the development in terms of Traffic and Transportation. The potential impacts from construction activities and subsequent operation of the development have been identified and assessed.

It concludes that the impact of the development during the construction phase and full operation along Tide fields Road will be negligible.

It demonstrates that that percentage impacts along Rover Way (north and south) are well below the threshold of 30% set out by IEMA guidelines. The impact of the development during the construction phase and full operation along Rover Way (north and south) will be Minor as predicted impacts are well below the 10% threshold and would therefore not have any significant impacts on local sensitive receptors.

(vii) Socio Economic Impacts

This section of the Environmental Statement (ES) identifies the main socio-economic impacts associated with the proposed development.

The chapter undertakes an assessment of the social and economic profile of the ward of Splott and city of Cardiff. It has considered the potential impacts of the proposed scheme during both the construction and operational phases of development. A comprehensive review of the baseline information/data has provided an understanding of the population profile, health, educational standards, community participation, unemployment / employment and workforce.

It concludes that the scheme will provide a sustainable waste management solution to the current waste management operation outlined under the 'Do Nothing' scenario. It will provide opportunities for both short-term and long-term employment, educational briefings, business growth and development and have a significant impact in addressing the severe multiple deprivation experienced in some parts of Splott and Cardiff. The assessment has identified that the proposed development will have cumulative major positive impact on the socio-economic profile of Splott, with wider associated beneficial impacts on Cardiff and Wales.

(viii) Landscape and Visual Appraisal

A visual appraisal has established that the site area is well enclosed by the adjacent built form with very limited visibility. Local views are available from the adjacent roads in the immediate vicinity of the site. Longer distance panoramic views are available from elevated locations to the north and west, in which the site is not discernable. The existing large scale built form in the area is a feature of local views. The landscape effects of the proposal are considered to have a neutral impact, as a result of the introduction of a new built form on a post industrial site, within an established industrial landscape.

(ix) Cumulative Effects

This Section identifies those impacts which are recognised in the ES as likely to be significant or highly significant following the implementation of the mitigation measures recommended within the topic area assessments and considers the interaction and cumulative effects of the proposed development.

The proposed development will bring forward significant positive socio-economic and community benefits to humans as a result of employment opportunities and the delivery of a sustainable approach to waste management incorporating a reduction in the level of organic waste

material being sent to landfill and the generation of renewable energy.

It is clear that the development will result in no cumulative adverse impacts on the City Centre or this part of Cardiff Council area.

The ES concludes that the proposed development, will result in an overall neutral to positive impact on the environment.

(x) Alternatives

This section Chapter of the Environmental Statement (ES) has been prepared to present a summary of alternatives. It satisfies Schedule 4 of the Town and Country Planning (Environmental Impact Assessment) (England and Wales) Regulations 1999, which requires that the ES include *"an outline of the main alternatives studied by the applicant and an indication of the main reasons for his choice, taking into account the environmental effects".*

An assessment of the outcomes under each scenario has been made, which suggests that the development of the Site for the AD facility will deliver a series of benefits that would not be realised under the 'Do Nothing' scenario. The benefits would accrue in terms of:

(i) Compliance with planning policy and the proximity principle
(ii) Sustainability and reduced journey lengths
(iii) Beneficial links with adjacent uses (the DCWW Waste Water Treatment Works)
(iv) On site ecological enhancements
(v) Socio-Economic benefits

The ES concludes that the development will result in an overall neutral to positive impact on the environment.

(xi) Mitigation Measures

The application proposes a range of mitigation measures for both the construction and operational phases of the development, as outlined within the Environmental Statement.

2. DESCRIPTION OF SITE

2.1 The Application Site comprises 1.4 hectares of previously developed and unused land adjacent to the Dwr Cymru Waste Water Treatment Site. The majority of the Site consists of hardstanding which previously housed a number of buildings, and a large parking area, associated with its previous use. At present the site contains a weighbridge utilised by Tankers associated with the waste water treatment works operations.

2.2 The Site is located within a predominantly industrial area, surrounded by various industrial / processing land uses. The adjacent land uses to the Site are as follows:

- To the west is Rover Way, beyond which is the Celsa Steelworks facility;

- To the north is Tide Fields Road, beyond which is the SIMS Metal Management Recycling depot;
- To the east is Dwr Cymru's Waste Water Treatment Works; and
- To the south are a number of commercial units located off Martin Road & Darby Road comprising a specialist builders' merchant, car dismantlers, and engine rebuild centre, ready-mixed concrete works and a steel fabricator.

3. SITE HISTORY

3.1 97/01234/R – Planning permission granted for a revised layout of the waste water treatment works.

97/00262/R – Outline planning permission granted for the waste water treatment works.

96/00577/R – Outline planning permission granted for waste water treatment works and associated outfall.

4. POLICY FRAMEWORK

4.1 The site is within existing area of Business, Industry and Warehousing as defined in the City of Cardiff Local Plan.

4.2 Planning Policy Wales, 5th Edition (November 2012) is relevant.

4.3 National Policies:

Wales Spatial Plan (November 2004);
Environment Strategy for Wales (2006);
National Waste Strategy for Wales (2002) and Draft Strategy (2009);
Planning Policy Wales 4th Edition (February 2011) (as amended);
Technical Advice Notes:
5 Nature Conservation and Planning (2009);
8 Renewable Energy (2005);
11 Noise (1997);
12 Design (2009);
15 Development and Flood Risk (2004);
18 Transport (2007); and
21 Waste (2001)

4.4 Regional Policies:

South East Regional Waste Plan: 1st Review (October 2008)

4.5 4.4 The following Policies from the South Glamorgan (Cardiff Area) Replacement Structure Plan 1991-2011 (April 1997) are relevant:

EV1 Towards Sustainable Development
EV2 Urban Regeneration

EV4 Pollution
E3 Protection of Business and Industrial Land
MV1 Location of New Developments
U3 Renewable Energy

4.6 The application should be considered against the following policies of the adopted City of Cardiff Local Plan:

(i) 11 'Design and Aesthetic Quality'
(ii) 17 'Parking and servicing requirements'
(iii) 18 'Provision for Cyclists'
(iv) 36 Alternative Use of Business, Industrial and Warehousing Land
(v) 37 Safeguards for Residential Amenity and Existing Industrial Areas or Operational Docks
(vi) 39 Older Industrial and Commercial Areas
(vii) 55 Other Waste Disposal Facilities

4.7 The following policies of the Deposit Cardiff Unitary Development Plan (October 2003) are relevant:

(i) 1A General Principles for the Location of Development
(ii) 1B Achieving Good Design
(iii) 1C Planning Obligations
(iv) 1E The Economy and Employment
(v) 1H Sites of International or National Importance for Nature Conservation
(vi) 1K Movement and Transport Priorities
(vii) 1N Car Parking
(viii) 1P Waste Management
(ix) 2.20 Good Design
(x) 2.24 Residential Amenity
(xi) 2.37 Change of Use of Industrial and Warehousing Land
(xii) 2.46 Sites of International or National Importance for Nature Conservation
(xiii) 2.48 Biodiversity
(xiv) 2.57 Access, Circulation and Parking Requirements
(xv) 2.58 Impact on Transport Networks
(xvi) 2.63 Contaminated and Unstable Land
(xvii) 2.64 Air, Noise and Light Pollution
(xviii) 2.73 Sites for Waste Management Facilities

4.8 The following Supplementary Planning Guidance:

(i) Access, Circulation and Parking Requirements, Standards(January 2010);
(ii) Trees and Development, (March 2007);
(iii) Waste Collection and Storage Facilities, (March 2007);
(iv) Locating Waste Management Facilities (2006)

5. **INTERNAL CONSULTEE RESPONSES**

5.1 The Operational Manager Pollution Control (Contaminated Land) advises: *'In review of the application Pollution Control has reviewed the Environmental Statement, by Alliance Planning dated April 2013. In particular Section 6 has been considered as well as Appendix 6.1, Contaminated Land Risk Assessment. The report has identified in Section 6.81 a number of potentially contaminative former land uses at the site and in the vicinity of the development site.*

The report has provided a very basic qualitative risk assessment of the potential risks posed by the previous land uses which have been detailed in Section 6.8.1. This assessment has been included as Appendix 6.1. However there has been no quantitative assessment of these risks against any on site measured concentrations to verify the assumptions/ conclusions of the qualitative assessment. Therefore the assessment provided to date can not be seen to adequately assess the risks in line with current best practice.

A full assessment of measured on site concentrations is required to enable a robust and scientific assessment as to whether any long term mitigation measures will be required.

In addition given the history of the site as detailed in Section 6, no monitoring for the potential presences of land gases has been provided only a qualitative assessment. Therefore it is not possible for the developer to robustly demonstrate whether gas protection measures will be required.

Therefore based on a review of the information submitted to date and the comments above Pollution Control recommends the following conditions be placed on any approval of this application:

(i) Ground gas assessment;
(ii) Land contamination risk assessment;
(iii) Submission of remediation scheme and verification plan;
(iv) Undertaking of remediation and issue of verification report;:
(v) Identification of unsuspected contamination;
(vi) Importation of soils*;*
(vii) Importation of aggregates;
(viii) Use of Site Won Material;
(ix) An advisory note advising of potential for contamination and unstable land

5.2 The Operational Manager Pollution Control (Noise and Air) advises: *'Having reviewed the relevant documentation relating to noise and air submitted by the applicant, I would make the following observations:*

1. The process in question will require a Permit under the Environmental Permitting (England and Wales) Regulations 2010. This will fall under the remit of Natural Resources Wales (NRW) and as such the applicant will need to liaise with this body. Any Permit issued will impose operating conditions on the process operators' and this should ensure any

emissions (including odours) from the process will be controlled.
For information, under normal operating conditions the process is fully enclosed helping to ensure any odour emissions will be kept to a minimum. It should be noted, there is the potential for odours to be emitted outside of these normal operating conditions. However, by following good environmental operating practice, they can be kept to a minimum.

2. *The Noise and Local Air Quality Impact Assessments are noted, but do not give any cause for concern'.*

An advisory note is recommended regarding construction site noise.

5.3 The Council Tree Officer advises: *'It would be preferable to see a detailed upfront landscaping scheme comprising a scaled planting plan, plant schedule, planting and aftercare methodology. If you are minded to approve without requiring such, then conditions C4P and C4R should be applied. In terms of species, native trees and shrub under-storey are preferred, including an evergreen element, which will offer benefits in terms of pollution absorption, screening and sound buffering'.*

5.4 The Operational Manager Transportation advises: 'A Transport Statement (TS) has been submitted in support of the application which indicates that there will be 42No (2 way) HGV vehicle movements associated with the proposed facility, between 6:00am and 10:00pm daily and that during peak hours the total vehicle trip generation is likely to be 6No (2 way) at those times when the network is busiest. It is concluded that any impact would be minimal and that traffic associated with the proposed facility would not be detrimental to the operation of the surrounding local highway network;

A new footway link is proposed to be provided between the site and the adopted highway in order to facilitate the safe movement of pedestrians. A condition is included below to secure these improvement works;

The TS has been examined by officers and is considered to be generally satisfactory for the purpose of this application;

On the basis of the above, Transportation would have no objection, subject to the following being included:

(i) Vehicle Parking and Turning Areas
(ii) Cycle Parking
(iii) Footway Improvement Works -
(iv) Vehicle Routing Management Plan

Recommendations:

(v) Section 50 Licence
(vi) Travel Information

5.5 Waste Management has no comments.

5.6 The Design Team advise:

Summary: The design quality of the development is appropriate to a facility of this type and its setting. And on this basis accords with Council design policy.

Visual Impact

The Landscape and Visual Appraisal submitted in support of the application identifies that : "Overall, the site is locally enclosed by surrounding industrial built form and is not in a visually sensitive location. The large scale built form in the area are substantial features in local views. Local receptors comprise users of the public highway with a low sensitivity to change." The study identifies that on the whole the visual and landscape impacts will be neutral.
The appraisal outlines the design and mitigation measures proposed to mitigate any landscape or visual effects as follows:

"The site layout has accommodated all built elements of the proposed development within the existing fenced, post industrial landscape and avoids affecting the landform on the eastern part of the site.

- The site layout utilises an existing vehicular access and seeks, where possible, to retain vegetation located to the site boundaries along Rover way and Tide Fields Road.
- The built forms utilise a pale grey (goose wing grey) colour which will relate well to other buildings in the locality.
- Site levels will be locally raised by approximately 600mm to minimise issues related to contaminated ground.
- Site lighting will be minimised to that required for safe site operations and will utilise directional fittings to minimise outward light spill and glare.
- Opportunities exist to introduce a belt of native trees and shrubs to the landscape bund to the site boundaries to provide local visual softening."
- The use of these measures are considered appropriate in minimising the visual impact of the development and that the design quality of the development is appropriate to a facility of this type and its setting.

5.7 The Land Use Policy Team advise: 'The application site falls within an area of land allocated for business, industry and warehousing use, as defined by the Local Plan. The application should be assessed against policy 55 of the Local Plan, a criteria based policy for the assessment of waste disposal facilities. Paragraph 10.5.1 of the Local Plan states that proposals for waste facilities will generally be encouraged towards existing areas or allocations for general industry (Class B2) use, unless it can be satisfactorily demonstrated that they could be acceptably located elsewhere, or if an assessment indicates that more onerous locational standards should apply.

Also of relevance is supplementary planning guidance on 'Locating Waste Management Facilities' (2006). Paragraph 6.1 of the SPG states that waste management facilities will be encouraged in existing or allocated general industrial areas (B2 uses) unless it can be shown that they could be

acceptably located elsewhere.

Section 5 of the SPG provides guidance on assessing the need for waste management facilities. The need for additional capacity and waste management facilities in Cardiff is established in the Council's Waste Management Strategy 2011-16 and the South East Wales Regional Waste Plan 1st Review (2008).

It is noted that Kelda are one of the four companies short listed to develop proposals for an organic waste treatment solution for Cardiff in the procurement process of the Council's Organic Waste Treatment Project.

Given the site's location on business and industrial land and the need for further waste management facilities within Cardiff, the application raises no land use policy concerns.

5.8 The Council Ecologist advises*: 'My only concern with this proposal is the proximity to the Severn Estuary, which is protected as a SAC, SPA and Ramsar site in accordance with National law and policy.*

Any plan or project which is likely to have a significant effect upon these designations must be subject to an 'appropriate assessment' prior to being given consent.

However, I do not believe that this proposal is likely to have a significant effect upon the features of the Severn Estuary designations, for the following reasons:-

Disturbance to Birds

Overwintering and migratory wildfowl are features of the Severn Estuary SPA, and can be affected by noise, vibration and visual disturbance during construction. In this instance however, the proposed development is about 350metres from the foreshore, which is beyond the distance (200m) within which these effects normally occur. Furthermore, existing industrial developments behind and either side of this site serve to negate any 'skylining' effect whereby activity occurs on the horizon which is visible to foreshore birds.

Atmospheric Pollution

Aerial emissions of NOx, SOx and particulates have the potential to affect habitats which are features of the Severn Estuary designations, such as Saltmarsh and Coastal Grazing Marsh. However, the effects modelling within the Local Air Quality Impact Assessment indicate that Predicted Environmental Concentrations are within the critical levels for these habitats.

Water-borne pollution and mobilisation of existing ground contaminants

Given the distance between the proposal site and the Severn Estuary (about

350m), and the intervening land use (waste-water treatment tanks) it is unlikely that water-borne pollutants and mobilised existing ground contaminants will migrate laterally to the Severn Estuary.

My conclusion is that, provided the development takes place as set out in the application documents, and that mitigation measures are implemented as described, then this proposal is unlikely to have a significant effect upon the Severn Estuary designations.

My only other comment is that where additional planting is proposed, the applicant should endeavour to use native species'.

Test of Likely Significant Effect (Significance Test)

The first step in considering a plan or project in accordance with Article 6.3 of the Habitats Directive is to determine whether it is likely to have a significant effect on a SAC or SPA (or Ramsar site). This is a coarse filter intended to identify those plans/projects which require further assessment of their implications and those where significant effects can be ruled out without further assessment. According to ECJ case law, this test should be applied in a precautionary way, such that a plan/project should be considered likely to have a significant effect if it cannot be excluded, on the basis of objective information, that it will have a significant effect. A significant effect is one likely to undermine a site's conservation objectives.[1]

In considering this test, account is taken of any proposed mitigation measures which are integral to and guaranteed by the project, and which would counteract the potential effects.

Having regard to the identified risks and the mitigation proposed. It is considered that this project is unlikely to have a significant effect upon the Severn Estuary SAC/SPA/Ramsar, and so an 'Appropriate Assessment' is not required.

5.9 The Council's Drainage Officer advises that the proposed drainage scheme is acceptable and recommends a condition to ensure that the proposed scheme is implemented in accordance with the submitted details.

6. EXTERNAL CONSULTEE RESPONSES

6.1 Natural Resources Wales advises:

'We note the application site is located in proximity to the Severn Estuary Special Area of Conservation (SAC), Special Protection Area (SPA) and Wetland of International Importance (Ramsar Site), approximately 325m to the west and 400m to the north of the designated sites.

The advice in this letter is offered to assist Cardiff Council in reaching a view

on the possible significant effect of these proposals in the context of Regulation 61 (1) of the Conservation of Habitats and Species Regulations 2010 as amended. Due to the nature and location of the proposed development, our main concerns relate to the potential for impacts on the Severn Estuary European Sites from water pollution (site drainage and contamination release during construction, and site drainage during operation) and from air emissions during operation of the proposed development.

We welcome the comprehensive information submitted with the planning application which we believe addresses these issues and details the measures to be put in place to avoid any adverse impact upon the Severn Estuary from site drainage, contamination and air emissions.

Provided the development is carried out as stated in the application and supporting documents, NRW is of the opinion that the proposal would not be likely to have a significant effect on the Severn Estuary SAC and SPA.

Furthermore, the proposal is not directly connected with the management of the site for nature conservation. Our advice for the Severn Estuary Ramsar Site is the same as for the Severn Estuary SAC and SPA. Please note that it is a Welsh Government policy to treat developments potentially affecting Ramsar sites in the same way as for SACs and SPAs. Severn Estuary Site of Special Scientific Interest

Our advice with respect to the Severn Estuary SSSI is the same as for the Severn Estuary European Sites. Provided the development is undertaken as stated above, the proposals would not be likely to have a significant effect on this site.

Biodiversity

We have not considered possible effects on all local or regional biodiversity interests. It is possible that there are habitats and species of principle importance for biodiversity in Wales at the site that are included on the Section 42 List of the Natural Environment and Rural Communities (NERC) Act. We remind you of your authority's duty under section 40 of the NERC Act, to have regard to conserving biodiversity. Adverse effects on Section 42 interests should therefore be taken into consideration.

We recommend you seek the advice of Cardiff’s ecology officer with respect to the potential impact of these proposals on local issues including the Local Biodiversity Action Plan.

Environmental Permits

Depending on the waste treatment capacity of the facility, the proposal may require an Environmental Permit under the Environmental Permitting Regulations. The applicant should approach NRW at an early stage to discuss the likely requirements of a permit application. The proposed Anaerobic Digestion (AD) plant would be close to an existing AD plant and combustion activity on the same site, which is currently regulated by NRW. The application should take into account the combination effects of both AD plants

and any associated combustion activities.

The site is also located on top of 2 historic landfill sites, and adjacent to several others. We have limited records of waste types stored in these landfills as landfills predate NRW/Environment Agency's records. It is advised that the applicant contact the Local Authority for information on the types of wastes tipped there.

Geoscience

The developer should address risks to controlled waters from contamination at the site, following the requirements of Planning Policy for Wales and the Environment Agency Guiding Principles for Land Contamination. It is strongly recommended that soil and water reference data is collected as a site condition report will be required as part of the application for a permit. If, during development, gross contamination is found to be present at the site NRW should be re-consulted.

Flood Risk

The Environment Agency's floodplain maps show that the development in question is not within a fluvial floodplain and we have no record of any flooding having occurred at the site. We therefore have no adverse comments to make in relation to this application. Other sources, for example, Local Unitary Authorities, may be able to provide information on issues such as localised flooding from drains, culverts, etc. We refer you to our Planning Advice Note (PAN) for further information, in particular in relation to Environmental Permits (EPs) / Consent Requirements.

6.2 Dwr Cymru has no objections subject to conditions requiring surface and foul water to be drained separately from the site and no surface water to be discharged to the foul drainage system unless previously agree in writing by the LPA.

6.3 Glamorgan Gwent Archaeological Trust advises:

'Information in the Historic Environment Record notes that the OS maps of the late 19th and early 20th centuries show the application area to be on the seaward side of the High Water Mark; the land has been reclaimed from the mid 20th century onwards. The supporting information mentions that the area was previously the site of buildings, now cleared and the land surface landscaped. In connection with the WWTW pipe, in the late 1990s, a fish trap dating to the 19th century was identified and recorded, although this was some 0.5km seaward. It is our opinion that it is unlikely that archaeological remains would be encountered during the proposed development and that therefore no mitigation is proposed'.

7. **REPRESENTATIONS**

7.1 Local Members were consulted, and the application was advertised by means of site notices, a newspaper advertisement, and neighbouring properties were notified by letter. No representations were received.

8. **ANALYSIS**

8.1 The proposed anaerobic digestion (AD) facility is proposed in order to provide a sustainable solution for how to dispose of up to 35,000 tonnes of food waste per annum. Food waste has previously been disposed of by landfill, taking up valuable space within the Lamby Way site and not extracting the potential for energy and by products from the resource. The proposed AD facility would provide an opportunity for the food waste generated within the Cardiff and the Vale of Glamorgan to be processed in a sustainable manner, in order to produce 'green energy', in the form of biogas and nitrate potash rich bio-fertiliser, for use on agricultural land. The biogas would be combusted to recover its energy in the form of renewable electricity and heat. The biogas produced would power a generator which would enable the production of 12,200kWh/a of electricity, both powering the AD facility and transmission to the adjacent Dwr Cymru Waste Water Treatment Works, offsetting the need to export electricity from the National Grid. The facility is designed to produce a minimum 97% recycling rate. It is considered that the proposal would assist in achieving goals of the overarching waste strategy for Wales entitled 'Towards Zero Waste' which sets targets focussed on achieving high levels of recycling and composting as well as exceeding the EU landfill diversion rates.

8.2 The principle of re-developing this brownfield site for waste processing is considered acceptable. The site is located within an area which is allocated for Business, Industry and Warehousing and which is surrounded by existing industry.

8.3 There are no residential properties within close proximity of the application site. The nearest boundary with a residential property is approximately 500 metres away. Furthermore, the closest properties (which are located on the southern side of Willows Avenue) are separated from the application site by the steelworks and a number of other industrial premises, which would obscure the facility from the view of these properties, as the maximum height of the proposed facility is 16.6 metres (to the top of the digestate storage tank). The proposed reception building has a maximum height of 13.2 metres. It is considered unlikely that the proposed development would result in any detectable odour at the boundaries with any residential property, given the design of the facility. The waste is to be delivered to the facility in sealed vehicles and will enter the facility within the reception building, which would have automatically closing doors and would operate under negative pressure, in order to prevent odours leaving the building. Once the waste in received it is moved around the site by pipe and is at no time open to the atmosphere.

8.4 The Operational Manager Transportation advises that any impact would be minimal and that traffic associated with the proposed facility would not be detrimental to the operation of the surrounding local highway network.

8.5 The site is located approximately 325 metres to the east and 400 metres to the west of the Severn Estuary, which is a European designated Special Area of Conservation (SAC), Special Protection Area (SPA) and also a nationally

significant Site of Special Scientific Interest (SSSI) and Ramsar site. The specific risks to the designated sites relate to impact from water pollution (site drainage and contamination release during construction, and site drainage during operation) and from air emissions during operation of the proposed development. However, both Natural Resources Wales and the Council Ecologist advise that provided the development takes place as set out in the application documents, and that mitigation measures are implemented as described, then this proposal is unlikely to have a significant effect upon the Severn Estuary designations.

8.6 A Contaminated Land Risk Assessment was carried out for the site, which identified potential sources of contamination, along with pathways and receptors of contamination. The assessment identified that the site is located on reclaimed land which was created through the tipping of by-products from the adjacent steel works directly onto tidal mudflats. The assessment has concluded that it is unlikely that any remediation works would be necessary in order to protect workers or prevent migration of contamination. However, as a precaution all foundations on site are to be of raft construction.

8.7 The Environment Agency detailed flood maps and the Cardiff Council Strategic Flood Consequences Assessment confirm that the Site is at low risk of tidal and fluvial flooding, and other sources of flood risk to the site have also been assessed and are considered to be low.

8.8 Prior to the submission of the planning application, a number of formal public/stakeholder consultation events were held with local residents and community groups. They included:

(i) A Political Stakeholder Briefing Session;
(ii) A public Exhibition / Consultation Event;
(iii) An additional Public Exhibition / consultation Event.

To publicise the proposed development and planned exhibitions letters were delivered to all 6,200 residential properties within the Splott electoral ward. In addition the events were also advertised by press notices published in the national Western Mail and regional South Wales Echo newspapers and posters were displayed in public places around the ward. Dedicated website and Twitter feeds for the project were also set up. Attendees at the exhibitions were asked to sign in upon arrival and 19 people were recorded as attending over the three days of exhibitions. The applicant has provided copies of the feedback forms submitted during the public exhibition meetings, and they are available for viewing at Appendix E of the Statement of Community involvement. The applicant advises:

'The verbal and written feedback received during the consultation and attendance at the events demonstrated that local people are satisfied that the enclosed nature of the AD process will not lead to odour issues and were pleased to support the redevelopment of previously developed land. Only one of the consultation forms received continued to raise concerns about odour and expressed a desire for the facility to be built elsewhere. Other feedback forms confirmed support for the anaerobic proposed digestion process as a

way of recycling Cardiff's food waste, and the creation of long term jobs and contribution to the local economy was welcomed'.
No representations have been received during processing of the planning application.

8.9 Planning Policy Wales (Edition 5 – 2012) Chapter 4 'Planning for Sustainability' identifies the role of Planning in ensuring a strong, healthy and just society and achieving a sustainable economy. Paragraph 4.2.1 confirms the planning system includes a presumption in favour of sustainable development in preparing plans and taking decisions so that social, economic and environmental issues are balanced and integrated. The applicant has undertaken a socio economic impact assessment as part of the submitted Environmental Statement.

The proposed development is likely to generate circa 50 jobs during the construction phase of the development. Once the development has been constructed 13 permanent jobs would be created within the facility, with a further 5 jobs being created for HGV drivers delivering to the site. The applicant states that the facility '*will bolster the local economy and lower unemployment levels. In turn this has the potential to raise the affluence of the area, and thus the position and wellbeing of the residents within the Splott Ward. It is considered that this will have a moderate positive impact on the surrounding area'*. On balance it is considered that the proposal would benefit the Splott area, given the increase in job opportunities for local people, combined with the inward investment within the facility and in the workforce. The proposal would provide an invaluable sustainable technology which will reduce the requirement for landfill and provide a clean form of energy to power the facility itself and largely supply the needs of the adjacent waste water treatment plant which currently requires significant amounts of electricity from the national grid. The proposal is generally in line with national planning policy which places sustainability at the heart of decision making.

8.10 In conclusion, it is considered that the submitted Environmental Statement provides a comprehensive assessment of the potential impacts of the proposed development. The applicant's assessment concludes that the resultant impacts are not significant and that the benefits of the proposal significantly outweigh any negative factors, given the proposed mitigation measures. The conclusions of the submitted Environmental Statement are considered sound and it is recommended that planning permission is granted subject to conditions.