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<tr>
<td>dB(A)</td>
<td>Decibels measured on a sound level meter, incorporating a frequency weighting</td>
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<td>Dowlais Free Drainage System</td>
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<td>Infrastructure Planning Commission</td>
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<td>Site of Importance for Nature Conservation</td>
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<td>Tonnes Per Annum</td>
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<td>WAG</td>
<td>Welsh Assembly Government</td>
</tr>
<tr>
<td>WioMD</td>
<td>Welsh Index of Multiple Deprivation</td>
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<tr>
<td>ZOI</td>
<td>Zone of Influence</td>
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<td>ZTV</td>
<td>Zone of Theoretical Visibility</td>
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A - CONTEXT

1.0 INTRODUCTION

1.1 Covanta Energy have applied to the Infrastructure Planning Commission (IPC) to develop an Energy from Waste (EfW) Facility at Brig Y Cwm. The application for the proposed development falls to be determined by the (IPC) which is responsible for consideration of Nationally Significant Infrastructure Projects (NSIP’s). The proposed development is deemed to be a NSIP as it has the capacity to generate more than 50 MW of electricity.

1.2 The decision making system set up under the 2008 Planning Act is an integrated procedure whereby the IPC is authorised to decide the NSIP and issue other consents (e.g. compulsory purchase of land) under a single statutory process. It is referred to as a (single) Development Consent Order (DCO).

1.3 Under the 2008 Planning Act, the Council is a significant statutory consultee whose involvement in the process is both consultative and informative.

1.4 This Local Impact Report (LIR) is a factual document, prepared in accordance with the provisions of the 2008 Act and set out in line with IPC Advice Note One: Local Impact Reports (March 2010). Sec 60 (3) of the 2008 Act defines an LIR as: “...a report in writing giving details of the likely impact of the proposed development on the Authority’s area (or any part of that area)”.

1.5 Notwithstanding the fact that the IPC Advice Note One states: “In producing an LIR, the local authority is not required to carry out its own consultation with the community”, the Council opened a ‘comments’ page on its website for interested parties to make representations on the application (written representations could also be made). All comments received will be forwarded to the IPC with this LIR.

1.6 The LIR has been prepared by the Town Planning Division with professional input from those officers of the Council specialised in the issues referred to in the report, namely: Town Planning Division’s Landscape Architect; Conservation, Heritage & Design Officer; Countryside Officer and Planning Policy Officer; the Council’s Assistant Director (Technical Services and Regeneration); Head of Regeneration; Principal Environmental Health Officer and Environmental Services Officer.

1.7 The purpose of the LIR is to enable the Council to:-
• advise the IPC on what local impacts it considers the proposed development will produce in the Borough and environs, by reference to specific issues;

• appraise the proposed development’s compliance with local planning policy and guidance; and

• offer views on the DCO provisions, requirements and obligations.

1.8 The LIR is structured in line with the IPC advice and sets out statements of “positive”, “negative” and “neutral” comments in relation to the specific issue impacts.

1.9 Importantly, the LIR is not required to carry out a balancing exercise of the impacts identified. Advice Note One states: “The Commission will carry out a balancing exercise of relevant impacts and these will include those local impacts specifically reported in the LIR”

1.10 An essential part of any balancing exercise must include the DCO application’s contribution to sustainable development, mitigation and adaption to climate change and achieving good design. This is required by Section 10 of the Planning Act 2008 (CH29).

1.11 Caerphilly County Borough Council has also produced a LIR. Brecon Beacons National Park Authority (BBNPA), Rhondda Cynon Taff County Borough Council (RCTCBC) and Blaenau Gwent County Borough Council (BGCBC) have submitted comments to the IPC.

1.12 This LIR is a separate document from:

• the Position Statement prepared by Elected Members and submitted to the IPC, following its acceptance at Council on 11th May 2011.

• The application to the EA for an environmental permit to operate the plan. The permit if granted would control the operation of the EfW.

1.13 Addendum to Application

1.13.1 The Applicants have submitted an addendum to the originally submitted scheme. The IPC will issue their decision on whether to accept the changes to the Application or whether a new Application will be required on the 14th July 2011. As such this LIR is based on the originally submitted documents.
2.0 DESCRIPTION OF APPLICATION SITE AND SURROUNDINGS

2.1 The site subject to the DCO application (The Application Site) is irregular in shape with a primarily west-east axis extending over a surface area of 14.5 hectares (HA) / 49 acres (ACS).

2.2 It stands on open moorland, occupying a position in the north east sector of the County Borough, within or adjoining an area of urban common (Merthyr-Gelligaer CL38). The Commoners’ rights have been suspended temporarily to undertake the Ffos y Fran land reclamation and opencast coal extraction referred to below. (FLRS)

2.3 North of the Application Site are two significant voids: the FLRS excavation area and, to its north, Trecatti Landfill Site.

2.4 The centre of the Application Site is located some 3.5KM due east of the Merthyr Tydfil Town Centre High Street, some 2.2KM east of A4060 (T) “Slip” road (Mountain Hare) roundabout.

2.5 It occupies an elevated position at approximately 375 metres above Ordnance datum (AOD). By comparison the mid point of the Town Centre High Street is set at approximately 175 metres AOD and the A4060(T) Mountain Hare roundabout at 280 metres AOD.

2.6 Vehicle access to the Application Site is currently gained from an access track running due south from the Bogey Road, which is a narrow single carriageway unclassified rural highway with sub-standard vertical and horizontal alignment, and soft verges inclining towards drainage cut off ditches either side. The most noticeable physical improvement to this road was provided by the construction of the steel and concrete single span bridge some 0.5KM west of the Application Site.

2.7 The new bridge was constructed over the disused railway line by Miller Argent (South Wales) the operators of the FLRS in 2007.

2.8 Bogey Road runs in a west-east direction connecting the A4060(T) with Gelligaer Common road to the east, a total running distance of some 3.0KM.

2.9 The Application Site slopes down from Bogey Road north to south.

2.10 To the south-east of the Application Site lies Overburden Bund No.3 (OB3), used to temporarily store material removed from FLRS excavation area to gain access to the coal seams.
2.11 To the north west of the Application Site north of Bogey Road lies the main excavation area for the FLRS and two other Overburden Mounds (OB1&2) to the north and east.

2.12 The railhead serving the site is also utilized by the Cwmbargoed Disposal Point (CDP) to the east. The CDP receives, processes and distributes coal and other minerals by rail. It contains a minerals processing and preparation plant, ancillary facilities including office accommodation, visitor training centre, and car parking/vehicle access and turning areas.

2.13 Both the Application Site and the CDP lie within the ownership of the FLRS operators, Miller Argent (South Wales) Ltd. With the exception of a small part of the proposed access road, the Application Site lies entirely within the administrative area of the Merthyr Tydfil County Borough Council (the Council). The CDP lies largely (80% of its surface area) within the adjoining administrative area Caerphilly County Borough Council (Caerphilly CBC).

2.14 The CDP, consented in 1957 has been in operation since 1958.

2.15 A national grid 400KV overhead power electricity line crosses the western extremity of the Application Site in a northeast-southwest direction.

2.16 The Application Site lies within the approved FLRS site which itself extends over 400HA/1000ACS.

2.17 There are claimed rights of way in the vicinity, one of which (a footpath) traverses the site in a north south direction.

2.18 The nearest settlement is Inclineside, a group of five dwellings 1.6KM west of the Application Site. The nearest dwellings Bryncaerau Farmhouse and Nantyffin are 1.5KM due south.

2.19 The BBNPA lies approximately 5KM to the north of the Application Site.
3.0 DETAILS OF THE PROPOSAL

3.1 Covanta Energy are seeking a Development Consent Order (DCO) from the IPC to erect an energy from waste (EfW) power station with a nominal gross electrical output of 77MW, of which the applicants anticipate approximately 10MW would be used to power the plant resulting in 67MW available for export.

3.2 The plant would have the capacity to receive up to 750,000 tpa mixed residual municipal solid waste and commercial and industrial waste.

3.3 The application documents state that approximately 75% of the waste delivered to the proposed EfW plant would arrive by rail from a network of rail-based waste transfer stations throughout Wales (which will be the subject of separate planning applications to be determined by the relevant local planning authority). Up to four trains per day would run with the exception of Sundays. The remaining 25% of waste would arrive by road between 6am and 11pm (with the majority of road deliveries being made between 7am and 5pm, with no deliveries on Sundays except under exceptional circumstances). The bottom ash generated by the EfW plant would be transferred in sealed containers to an offsite ash recycling facility by rail (which would also be subject of a separate planning application).

3.4 The proposed EfW plant comprises:-

- three waste processing streams each comprising a reciprocating grate, furnace, boiler and associated flue gas treatment system
- a waste reception hall
- fuel bunker
- workshop and stores
- boiler hall
- turbines and turbine hall
- offices
- visitor centre
- composite stack and emissions monitoring facility and emergency back-up generator
- vehicle maintenance unit
- parking and jet wash building
- external lighting
- security gatehouse
- internal site roads
- weighbridges
- car HGV and coach parking
- switch yard
- air cooled condenser
• contractors’ laydown area and yard
• emergency laydown area
• external storage area
• electrical transformer building
• diesel storage tanks
• process and fire water storage tanks
• foul drainage and on-site treatment provision
• surface water management through a Sustainable Drainage System (SuDS) including balancing ponds and water discharge
• internal landscaping and habitat creation with related fencing (including security fencing) or boundary treatments
• ground leveling works
• new rail sidings and connections to the existing railway line
• a security and rail control office
• creation of a new access from the Bogey Road via a private level crossing, including works to the existing public highway; and creation of a temporary construction compound and laydown area.

3.5 The scheme will also include the following off-site developments which do not form part of the DCO application. They will be the subject of separate planning applications to the relevant Local Authority:-

• A heat pipeline;
• Connection to the electricity grid in the form of overhead lines;
• Rail-based waste transfer stations to facilitate the supply of fuel to the EfW facility;
• An ash recycling facility to process residual bottom ash from the EfW facility into secondary aggregate.

3.6 The proposed development is described in detail in Document 4.1 of the ES and in document 8.1 of the submission titled “Scheme Description”. A summary of the proposed development is provided below, taken from the application documents submitted:-

3.7 **Plant operation and process/Design Life**

It is intended that the plant would produce heat and power 24 hours a day, 7 days per week and would employ up to 81 full time operational and maintenance staff, with a maximum of 65 personnel on site at any one time.

3.8 The applicants estimate the design life of the facility to be approximately 35 years. Decommissioning details have been submitted as part of the DCO application.
3.9 The proposed development would be capable of generating electricity and heat. The applicants state that some of the heat generated would be made available for use by existing and new employment development and potentially for new homes via an underground CHP pipeline, designed to circulate hot water from the EfW facility, effectively forming a closed loop system from which heat energy would be transferred to end users. Electricity would also be supplied to the national grid for general distribution to the network. The applicants anticipate that the pipeline would be installed once there is sufficient heat demand (likely to be half the available heat supply i.e. 25MW).

3.10 **Access, transportation, deliveries etc**

Vehicular access to the site is proposed from the unclassified single carriageway known as Bogey road, which connects to the Trunk road network on the A465 north of the site and to the A4060 west of the site. The site access utilizes the existing signal controlled crossing point connecting the CDP and the FLRS but will be widened and improved in order to accommodate the development. The access will be designed to restrict traffic entering from a westerly direction and as such all traffic will be directed to arrive and leave from an easterly direction and connecting to the A465 beyond.

3.11 The applicants further state that rail access to the site will be via the existing railway line from Cardiff. The applicants state that two new rail sidings (at least 400m in length) will be provided for the sole use of the EfW facility, sufficient to accommodate a 20 wagon train capable of carrying two sealed containers, each holding 18 tonnes of waste.

3.12 **Design of Main Building**

3.12.1 The main building housing the EfW facility takes the form of a curved roof structure constructed using a steel frame covered in profiled metal sheeting, mushroom in colour.

3.12.2 The maximum external measurements of the EfW facility are 185M in length east to west (comprising the waste reception hall, fuel bunker and boiler hall) and 135M in width north to south (comprising the waste reception hall, fuel bunker, boiler hall, mechanical and electrical workshop and the turbine hall).

3.12.3 At its highest point, the roof will be 50m above adjoining ground level. The chimney stack will stand 115m above adjoining ground floor level (GFL) on the eastern side of the facility. GF level is set at 375m, the top of the stack at 490m above AOD.
3.12.4 The height, scale and mass of the building housing the EfW and associated facilities reflect its function and operational requirements. The dimensions of the building may not be readily appreciated due to its landscape context. For this reason a few comparisons with existing landmark buildings and other structures may be useful. They include large well known local buildings and structures, although none is directly comparable in terms of their scale, mass or height to the proposed development which is greater in every respect.

- Tower Block, Caedraw Flats: Height 33M (approx)
- Merthyr College Building: Height 20M (approx)
- T-Mobile Call Centre, Rhydycar: Height to ridge: 12M, Height to eaves: 9M, Footprint 63 x 54M, Floorspace 3402 Sq.M.
- LNG Storage Tank
  Dynevor Arms (near former Baverstocks Hotel) Height = 33M to top of side wall, 45M to top of dome

The following stand in close proximity and are clearly visible from the Application Site.

- Maintenance Workshop for FLRS, approximately 500M north west of Site: Height to ridge: 15M, Height to eaves: 13M, Footprint 36 x 24M, Floorspace = 864 Sq.M
- Electricity Pylon: 47M (approx)

3.12.5 The materials proposed for the main facility building include:

- Metal standing-seam roof cladding system in mushroom;
- Vertically laid and horizontally laid trapezoidal profile metal cladding in goosewing grey with precast concrete plinth wall;
- Translucent poly-carbonate cladding panels;
- Metal vertical louvres;
- Canopy structural steelwork galvanized finish;
- Polyester powder coated doors in goosewing grey;
- Rain screen cladding system with slate grey colour panels;
- Aluminium framed curtain walling system to office elevations. Polyester powder coated colour graphite grey.
3.12.6 It is proposed that the development would achieve BREEAM “Very Good” rating.

3.12.7 The Applicants presented the scheme to the Design Commission for Wales’s Review Panel in April 2010 and again in June 2010. A copy of the Design Commission’s reports appear at Appendix 1 and a summary of their comments is contained within Section B7 “Design Impacts” of this LIR.

3.13 Construction Programme

3.13.1 The Applicants anticipate that construction of the facility will take 44 months and that during construction an average of 340 people would be employed (peaking at approximately 650). Construction would be undertaken in three stages in parallel as follows:

- Civil/structural engineering;
- Installation of mechanical, electrical and control equipment associated with the process elements of the EfW facility;
- Construction of the rail infrastructure.

3.13.2 The proposed construction working hours are:- Monday to Friday 07:00 to 23:00 hours and Saturdays 07:00 to 17:00 hours, subject to extraneous circumstances and internal activities such as building fit out which would be carried out outside these normal working hours.

3.14 Conclusion

3.14.1 The Council considers that the sustainability of the proposed development, subject of the DCO application and any resultant community and other benefits are inextricably linked to the associated CHP pipeline development. Whilst not forming part of the current DCO application, implementation of the CHP pipeline is considered essential.

3.14.2 This notion is fully supported by the comments of the Design Commission. (Appendix 1). The above comments are offered “without prejudice” to any subsequent planning application for construction of a CHP pipeline. Since no application has been submitted, the Council has nothing to consider and the process of determination has not even begun and no decisions have been either reached or indicated in advance.
4.0 RELEVANT PLANNING HISTORY AND ANY ASSOCIATED ISSUES

4.1 In view of its geology, mining history and location this sector of the County Borough has been subject to mineral exploitation for the past two centuries, including coal, ironstone, sandstone and limestone. Consequently there is a wealth of (post 1947) development control history associated with the Application Site and surrounding area. However within this context the most significant issues of relevance to the proposed development are:-

- the Ffos-y-Fran Land Reclamation Scheme (FLRS); and
- the Cwmbargoed Disposal Point (CDP).
- The A.J. Williams Yard. Whilst of less significance to the consideration of the proposed development, brief reference is made to the site for clarity at Sec 4.7.

4.2 An overview, rather than detailed summary of their planning histories is set out below, together with their relevance to the current scheme and potential issues arising.

4.3 Ffos-y-Fran Land Reclamation Scheme (Welsh Assembly Government Planning Permission Reference) A-PP152-07-014

4.3.1 The FLRS site contains numerous recorded and unrecorded mine workings. It was therefore deemed unsafe and, the majority was designated as derelict and unsightly land.

4.3.2 The FLRS was considered to be a practicable means of reclaiming the site and of making it safe, financed through opencast coal recovery.

4.3.3 The FLRS constitutes the third and final phase of the larger East Merthyr Land Reclamation Scheme (EMLRS). Phases 1 and 2 of the EMLRS lie to the west of the A4060 (T) and were undertaken sequentially between 1993 and 1997. Ffos-y-Fran represents the largest phase in terms of surface area, the amount of coal to be won and worked and the duration of the project.

4.3.4 The FLRS was permitted in 2005 following Welsh Assembly Government Planning Decision Committee ratification of the report and recommendation of the Planning Inspector who conducted a “Call in” Public Inquiry in September 2004. Development commenced on the approved scheme on the 6th June 2007. The planning permission allows for the extraction of 10.8 million tonnes of coal with a phased restoration and aftercare programme. All coal extraction will cease within 15 years 3 months from commencement of development. Final restoration must be
completed within 17.5 years from commencement (Planning Conditions 3 and 4 refer).

4.3.5 The most visible aspects of the FLRS are the excavation area, north of Bogey Road, abutting A4060 and the three overburden mounds. These mounds are used to store large quantities of excavated material (other than coal and soils) for the greater part of the project. They will be returned to the final excavation void on completion of coal working. Two overburden mounds stand north of Bogey Road, east of the excavation area, one stands south of Bogey Road, immediately south of the Application Site.

4.4 FLRS Restoration Strategy

4.4.1 The 2005 planning permission, as issued, contained 59 planning conditions, five of which (No’s 6, 50, 51, 52 and 53) required site restoration and aftercare. Issuance of that permission was contingent upon completion and signing of a Section 106 Agreement. It included a covenant requiring payment of a Restoration Bond as security for the performance of the restoration works, landscaping and aftercare approved by the permission.

4.4.2 The DCO application for the proposed development acknowledges that, in order to physically accommodate the main building footprint and surrounding residual amenity land, it will be necessary to remodel a (relatively) small section of the FLRS approved restoration area.

4.4.3 Therefore, a revised scheme relating to this part of the FLRS site is required.

4.5 Permitted Variation of Condition 37 to FLRS Planning Permission (Welsh Assembly Government Reference) APP U6925/A/10/2129921

4.5.1 On 8th – 11th February 2011 a Public Inquiry was held to consider an appeal lodged by Miller Argent (South Wales) Ltd against the refusal by the Council to allow a variation of condition 37 of the FLRS permission for the transportation of up to 50,000 tpa of coal by road.

4.5.2 The appeal was upheld. In addition to varying condition 37, other conditions were varied, including conditions 6, 51, 52 and 53. Condition 50 was deleted.

4.6 Cwmbargoed Disposal Point (CDP)

4.6.1 The Cwmbargoed Disposal Point (CDP) extends over a surface area of some 23.4HA/58ACS.
4.6.2 It lies at the ‘T’ Junction of the (west to east) Bogey Road with the (north to south) Gelligaer Common Road, abutting the southern verge of the former and the western verge of the latter.

4.6.3 Its western boundary follows the curved line of the Cwmbargoed Mineral Railway line which connects with the railway network to the south. It therefore has the benefit of a direct railhead connection with the national railway network.

4.6.4 The CDP lies some 15 metres east of the Application Site, separated by an access track.

4.6.5 In addition to the railhead there are three vehicle access/egress points to the CDP. One connects with the Bogey Road at the northwest sector of the site which allows for coal haulage and other appropriate site vehicles to cross between FYFLRS excavation area and the CDP in a north-south direction via a traffic signal controlled crossing point (known as crossing point X). The second allows coal haulage and other HGV’s to exit CDP onto Bogey Road, east of crossing point X (known as Z). The third connects with Gelligaer Road south of the ‘T’ Junction with Bogey Road and is the main public access.

4.6.6 The CDP is, amongst other things, the point to which coal excavated from the FLRS is taken to be blended, processed, stocked, and distributed for onward transmission to various destinations, primarily to Aberthaw Power Station along the South Wales coast west of Barry.

4.6.7 The majority of the CDP (18.7HA or 80%) lies within Caerphilly County Borough Council’s administrative area; the remaining 4.74HA (20%) lies within this Council’s administrative area. The CDP land lying within Merthyr Tydfil County Borough Council is in two discrete areas: a square parcel of land west of Bogey Road crossing point immediately east of the Application Site; also a rectangular area at the southern extremity of the CDP.

4.6.8 The CDP has been in existence since 1958 for which planning permission was granted on 4th December 1957. There have been numerous subsequent permissions, the most significant of which was consent 080091 which allowed for continuation of use of Cwmbargoed Disposal Point for the duration of related operations at the Ffos-y-Fran Land Reclamation Scheme, together with the provision of additional facilities. That permission allows for operations up until 31st December 2024. A similar planning application was submitted to Caerphilly Borough Council in respect of the majority of the site and a similar consent issued.
4.7  The A.J. Williams Yard (Planning Permission 52770375)

4.7.1 This Yard or Depot benefitted from a planning permission, issued on 10th February 1978 and implemented soon after, for coal storage, blending and drying with office, weighbridge and vehicle maintenance facilities.

4.7.2 The Depot lies within the DCO Application site, north of the mineral line, accessed off the Bogey Road which defines its northern site boundary.

4.7.3 There was some debate at the public inquiry in February this year, referred to above, concerning the current planning status of the depot. The Planning Inspector concluded in his decision letter, that it is “by no means clear cut”.

4.7.4 The Yard or Depot is required in the Draft Order “for the creation of a temporary construction compound and laydown area” (Work No 3).
5.0 SOCIO ECONOMIC AND COMMUNITY IMPACTS

5.1 Relevant Economic Context

5.1.1 Merthyr Tydfil is ranked as one of the most deprived local authority areas in England and Wales. The local economic context is proportionate to this pattern of deprivation which is reflected in low rates of employment, high rates of unemployment, low incomes, low skills levels and continued over dependence on the manufacturing sector. These economic characteristics are consistent with the prolonged process of de-industrialisation and decline experienced by Merthyr Tydfil over the last century. Any assessment of the economic impact of the proposed development can only be assessed through the current structural socio economic position.

5.1.2 In a recent report, ‘Tackling Worklessness in Britain’s Weaker Local Economies’ published by the Centre for Regional Economic and Social Research at Sheffield Hallam University (November 2010), Merthyr Tydfil was identified as the second worst district in England and Wales in relation to the percentage of working age population that are not in employment and in receipt of state benefit. At 26.7%, only Blaenau Gwent had a higher rate than the 26.5% in Merthyr Tydfil.

5.1.3 In the Welsh context, relative deprivation levels are calculated and recorded in the Welsh Index of Multiple Deprivation (WIoMD), last published in 2008.

5.1.4 The WIoMD is based on eight separate domains which model differing dimensions of deprivation:- income; housing; employment; environmental; health; access to services; education and community safety. This method takes into account the assumption that multiple deprivation is a combination of different but related deprivation attributes. Indicators for each deprivation domain are produced at the lower layer Super Output Area (SOA) level. Each domain is summarised as a single measure, which are combined in the overall Index.

5.1.5 Merthyr Tydfil has the highest percentage, (31%) of their SOAs in the most deprived ten percent in Wales, for overall deprivation. Within the 8 domains, Merthyr also had the highest negative scores in employment, income educational/skills achievement and health.

5.2 Positive Economic Impact – Inward Investment

5.2.1 The proposed development could result in the relocation to Merthyr Tydfil of sector specific businesses and business activities that directly supply,
or benefit from, the energy from waste process. The primary compatible business sector in this respect is that associated with existing and new energy technologies.

5.2.2 Any initial sector specific relocation could subsequently stimulate a ‘cluster development’ of similar businesses and business activity. This could further stimulate a potential secondary clustering of business associated with ancillary supply chain requirements, also the research and development companies associated with the industries existing and future technology requirements.

5.2.3 The proposed development could also offer a wider, direct incentive to private sector inward investors if free or discounted heat and/or electricity were made available to existing and/or future planned development sites.

5.2.4 This potential benefit from heat/power transfer is most relevant to the existing industrial premises on the Goat Mill road, and the employment development sites (E4 and E5) identified in Council’s LDP which lie respectively west and east of A4060 (T) Slip Road, north of mountain Hare roundabout.

5.2.5 Located within the Goat Mill Road Estate are three large WAG owned units that remain vacant and available for rent together with a range of existing businesses and several medium/small new units being developed by the private sector.

5.2.6 Employment sites E4 and E5 lie 1.2km to 1.5 km NW of the proposed development site, E4 is currently available for development. It is anticipated that E5 will become available in 2014 following completion and restoration of the southern part of FLRS with the prospect of development in the period 2017 - 21.

5.2.7 Provision of free or discounted heat/power would greatly increase the incentive for relocation to these sites and further strengthen the location as an ‘industrial hub’. There would be additional financial incentive to businesses that require and consume large quantities of heat and power.

5.3 **Positive Economic Impact – Household Income**

5.3.1 The UK is again experiencing ‘cost push’ pressures on the Retail Price Index similar to those of the early and late 1970's. The increasing cost of all forms of domestic energy supply and consumption are a direct factor in this cycle producing a negative impact on local disposable income levels. The multiplied local economic effect is relative to the actual pattern of existing household income. Based on the low income levels in Merthyr, it
can be assumed that a larger proportion of household expenditure is committed to essential goods and services e.g. heating, lighting, food etc.

5.3.2 A guaranteed reduction in the cost of electricity for all domestic uses in the County Borough would produce a direct benefit. However, any arrangement to deliver such a benefit would need to have a clear, legally binding framework as part of any DCO.

5.4 **Negative Impact – Inward Investment**

5.4.1 If the infrastructure and supply of heat/power is made available, the final benefit from any additional inward investment and associated employment will be proportionate to the type of industry and business activities that are attracted. An overall negative impact could be created if a ‘cluster’ of business activities developed, i.e. an opencast coal extraction site, a landfill site, and the proposed development.

5.4.2 If the development of local infrastructure to supply reduced cost/free heat/power to existing and planned industrial sites was not realised there would be minimal or no added economic benefit. If this potential direct business incentive was not available or not technically possible the attraction for inward investment would centre on industrial compatibility and/or industrial benefit in relation of proximity to a waste to energy process. This could produce a negative impact on inward investment.

5.5 **Positive Economic Impact – Employment**

5.5.1 In the medium term, direct economic benefit will be created with the employment of 65 full time jobs at the completed facility. In the short term, this will be supplemented by temporary construction industry jobs during the period when the plant is being constructed.

5.5.2 In the medium and long term, if the benefit and incentives already outlined were realised, there could be additional indirect employment created in the County Borough of Merthyr Tydfil.

5.5.3 For the purpose of this LIR it is not possible to calculate the secondary employment benefit resulting from the proposed development.

5.6 **Negative Economic Impact - Employment**

5.6.1 Final full time job creation associated with the proposed development is relatively small and will require specialist industry specific skills. Given the existing low skills base in Merthyr Tydfil it is unlikely that such additional employment will be secured by local residents, unless the Applicants engaged in up front educational programmes, eg. co-operating with local
schools and colleges. The long lead-in time for this project (approx 4 years) should allow time for appropriate education programmes to be devised and put in place.

5.6.2 An industry specific skills training process targeted to “up skill” local residents should be put in place before works commence.

5.6.3 Whilst there will be short term jobs created in the construction industry there is no certainty that they will be taken up by local residents. The scale and value of the construction contract will be open to international competition. Unless any contract awarded contains specific legal conditions or clauses that specify use and local labour by the prime contractor and its sub contractors, then the short term job creation estimated has little local relevance. This should be explored by means of a S106 (See Section 15).

5.6.4 Even if the full additional short term jobs were created, the benefit could be neutralised if negative perception associated with the location of the plant reverses the recent success in attracting national house builders into the Borough.

5.7 Negative Impact – Tourism Economy

5.7.1 Exploiting the rich culture, landscape and heritage in Merthyr Tydfil, the latent potential of tourism and development of the tourism sector has been identified as a key economic renewal driver within the Council. With a fifth of the County Borough lying within the Brecon Beacons National Park, the unique sense of place of Merthyr Tydfil has driven the development of the local tourism economy.

5.7.2 Supporting development of the local tourism economy is identified as a Corporate Priority in the Council’s Corporate Plan.

5.7.3 To deliver this corporate priority, the first Tourism Strategy for Merthyr Tydfil was developed in 2007 and approved by the Council in 2008. Since 2007 the Council has made a direct investment of over £10 million supporting the development of the tourism sector infrastructure. This investment has targeted the enhancement of existing key visitor attractions, together with development and marketing of new visit or experiences.

5.7.4 Over 60 full time jobs have been directly created from this £10 million investment. In 2009 tourism was worth £43m to the local economy – Source: Scarborough Tourism Economic Activity Monitor (STEAM) Report 2010.
5.7.5 In January 2009 the profile of tourism development was further increased when the Council, in partnership with eight other areas across Western Europe were awarded approval of £10 million from European Union funding to deliver the COLLABOR8 project. This initiative is a Transnational Collaboration Programme exploring different aspects of tourism led economic regeneration by each partners.

5.7.6 Public and community confidence in Council’s commitment to developing the tourism economy was realised in December 2010 with the first Heritage led Economic Regeneration conference. From this event a Heritage Forum was constituted with representatives from local groups/societies with an interest in the Heritage and Culture of Merthyr.

5.8 **Negative Impact – Tourism Sector Development in Progress**

5.8.1 Further development of the tourism economy and tourism offer available in the Borough is at a critical stage. Finance has been secured to develop an international standard gravity downhill mountain bike facility at Gethin Woodland Park. This initiative is part of a wider regional project across Merthyr, Caerphilly and Neath Port Talbot CBC, in partnership with the Forestry Commission Wales and South East Wales Economic Development Forum, supported with finance through Visit Wales. The Forestry Commission Wales have already invited tender proposals in a competitive dialogue process to design, build and manage the facility.

5.8.2 The Welsh Government has also recently made funding available to develop an International Scout Centre at Dolygaer in the north of the Borough, whilst the International Climbing Centre at Taff Bargoed has secured Rock UK as a new tenant of the facility located in the south of the Borough.

5.8.3 Central to development of the tourism economy is marketing Merthyr Tydfil as a visit destination that offers unique scenery and natural environment that can be experienced through a range of outdoor activities. The negative public perception associated with the proposed development within the Borough will project a negative image to potential visitors.

5.9 **Negative Impact – The Rural Economy**

5.9.1 Simultaneous development of the local rural economy has added value to the tourism investment during this period.

5.9.2 In 2008 the first Rural Action Merthyr (RAM) Local Development Strategy (LDS) was created. The plan covered the growth, development and delivery of a strategy for the rural regeneration of four designated rural wards in the Borough. Development of the plan was combined with the
development of a Local Action Group (LAG) and a Rural Partnership Board which was awarded financial support for three years from the European Rural Development Programme. The plan targeted rural economic regeneration through Welsh Heritage and Culture, Tourism and Outdoor Activity and Production of Local Food, Crafts.

5.9.3 In March 2011 the second Rural Development plan was approved, based on covering four designated rural Electoral Districts (Vaynor, Cyfarthfa, Merthyr Vale and Bedlinog). Within this second plan, support for the production of local food products is identified as a priority, together with the revival and preservation of local rural heritage. One specific aspect of rural heritage is engagement with the Commoners with specific emphasis on the ancient history and heritage associated with Gelligaer Common.

5.9.4 The location of the proposed development will have a dramatic, negative impact on all aspects of the potential to exploit the benefits associated with the history and heritage of the Borough and surrounding area.

5.10 **Negative Economic Impact – Holistic Regeneration Investment**

5.10.1 Over the last 30 years of the post industrial period, the natural and built environment in Merthyr Tydfil has been transformed through several phases of renewal and targeted investment in regeneration.

5.10.2 The Orbit Business Centre at Rhydycar was opened in 2008. The facility offers a range of services which include Business Support Services, and also provides supported business incubation accommodation, which is also available for young, high growth potential businesses. The Council has continued to identify and make available the provision of industrial development sites that can accommodate existing and future needs for inward investors interested in locating in Merthyr Tydfil, or the expansion of existing business already located in the County Borough.

5.10.3 Since April 2005 £9,079,591 has been invested in the improvement of the Merthyr town centre alone, with a further £26,000,000 physical and environmental improvement programme being delivered. Merthyr Tydfil is recognised as a key regional retail centre for the Heads of the Valleys area. The high quality out of town facility at the Cyfarthfa Retail Park north west of the town is further complemented by the Leisure Park at Rhydycar.

5.10.4 Linked to this investment is the delivery of the Merthyr Learning Quarter in partnership with the University of Glamorgan which is programmed to be completed in 2013. This will consist of a tertiary educational facility and an additional campus targeting adult learning with progression to higher education as part of the University of the Valleys Initiative.
5.10.5 The integration and coordination of the major investment made in the Borough has achieved one of the five underpinning aims within the WAG Economic Renewal Programme – A New Direction (July 2010) which states under the heading “Making Wales a more attractive place to do business” :-

“We need to develop the conditions which not only allow, but actively help, people and businesses to flourish sustainably – by making the most of our assets, by improving the health of our working age population, and by getting the balance right between environmental, social and economic objectives”.

5.10.6 Merthyr Tydfil has finally emerged from a widely held external perception of heavy industry, discard tips and despoiled landscape. It has instead created the conditions and infrastructure attractive both to local communities and potential inward investors.

5.10.7 The negative perception associated with the proposed development could neutralize the social, economic and environmental conditions and infrastructure attractive to inward investors and could affect confidence and perception of the existing business community.

5.11 Conclusion

5.11.1 The potential socio economic impacts resulting from the proposed development may be ameliorated by exploring through meaningful negotiation with the Applicants the following:-

- Discounted disposal of local domestic waste disposed at the plant.
- Discounted energy transfer to agreed local industrial/employment sites.
- Discounted domestic energy for local residents.
- Active engagement with the local authority to cluster ancillary businesses.
6.0 LANDSCAPE AND VISUAL IMPACTS

6.1 These observations identify a number of inconsistencies and omissions in respect of the quality and extent of the content of Chapter 8 Landscape and Visual Resources of the ES. These issues are addressed/considered in this section of the LIR.

6.2 Notwithstanding these issues, the Council broadly concurs with the methodology utilised to produce the Landscape and Visual Impact Assessment and therein much of its findings. The LIR is however intended as a vehicle to reflect the local impacts not found in the ES. In order to illustrate this picture at a local level, certain subject areas have been linked in order to assess how the development might impact on the lives of people locally.

6.3 Observations on Chapter 8 Landscape and Visual Resources of the ES

6.3.1 Inconsistencies

6.3.2 Assessment methodology for the presentation of the visual impact on the specified viewpoints; show a high degree of inconsistency. These concerns are as follows.

6.3.3 Certain viewpoints have been taken in such a manner as to not truly reflect the importance of the location in terms of both advantageous visibility of the development and also truly representative of a popular location.

6.3.4 Viewpoint 7 - When consultations were made with the Town Planning Division’s Landscape Architect a request was made for the viewpoint to be taken from Pen Garnbugial. The position at a trigonometric point affords a panoramic view of the upland landscape.

6.3.5 Viewpoint 8 - This has been taken from a position on the slopes of the Taff Bargoed valley; whereas a far more comprehensive view can be realised from Craig Penddeugae a little further up the slope and closer to the Loops and Links Route 1 more frequented by users of recreational outdoor space.

6.3.6 Viewpoint 12 - This viewpoint has been selected from a position within Cyfarthfa Park where there exists a very limited view of the proposed development. Whilst it is accepted that this is intended to be a representative view from within the Park it is not truly representative of all the available views. An alternative view taken from the fields to the rear of
Cyfarthfa Castle would present a full view of the proposed development. Despite being located within the Historic Registered Park and Garden, this has not been explored. Fig 8.3 of the ES illustrates Landscape Designations overlaid with the ZTV; it is apparent from the plan that large areas of the higher elevations of Cyfarthfa Park are theoretically afforded views of the proposed development. However these have not been examined.

6.4 **Zone of Theoretical Visibility (Building and Stack in the Landscape)**

6.4.1 The ZTV separates the view of the building and the stack. However this does not provide information on the visibility of the building and stack in the years 2015 and 2025. Further work is required on a zone of visibility for both these periods; together with a remodelled landform ie post FLRS fed in. Certain discrepancies in relation to the presentation of the development in the landscape present the proposed development in good light and favour images of the impact of the development on the landscape.

6.4.2 **Viewpoint 8** - This viewpoint fails to adequately disclose the extent or the presence of the chimney stack in the landscape.

6.4.3 The presentation of chimney stacks varies from one viewpoint to another. In some it is barely perceivable others it is prominent and there exists no sound explanation as to why it should be darker in one image and lighter in another.

6.5 **Presentation of Future Baseline Data**

6.5.1 The presentation of the development in relation to how it might appear in future years 2015 and 2025 has been inadequately explored. The appearance of the development in all scenarios needs to be made for all viewpoints. Furthermore there is a need for an additional photomontage for each viewpoint showing the restored landscape without the proposed development in order that a comparison can be made as to what changes would take place.

6.5.2 It is unclear why an assessment has been made for each viewpoint for both 2015 and 2025 without these images being utilised to make an appropriate assessment. It is unclear on what basis these judgements have been made.

6.6 **The Recreational Resources and Tourism**

6.6.1 Although landscape designations have been utilised as a tool by which to establish the coincidence with the ZTV, popular local and regional
recreational routes such as the Taff Trail, Heads of the Valleys Cycle Route and Trevithick Trail have not been included. Detailed inclusion of recreational features such as these only occurs on Fig 13.1 of the ES which is restricted to the immediate environs of the proposed development. The approach taken to establish the effects on recreational resources and tourism is limited.

6.6.2 Chapter 13 of the ES (Social and Economic Effects 13.75) fails to acknowledge the importance of iron as the industry that created the landscape of the northern part of the Borough and the principal reason for the designation of its landscape being of Outstanding Historic Interest. Coal formed only part of the process of later iron production. The extraction of minerals, natural resources, their uses in transportation and processing define the historic landscape and afford it the level of designation. These facts have not been acknowledged in this section of the ES.

6.7 Consideration of Impact of the Proposed Development on Viewpoints, Recreation and Quality of Life

6.7.1 Consideration has been given to the impact of the proposed development on a given viewpoint in combination with the level of deprivation within which the particular Ward the viewpoint sits. Furthermore the recreational associations of the viewpoint both real or aspirational are also considered. Therefore the overall impact is a reflection of the impact of the proposed development on the wellbeing of the general population. The proposed development could therefore run counter to the goals set out in the Merthyr Tydfil Health Social Care and Wellbeing Strategy and associated Active Merthyr Tydfil Action Plan supported by the Welsh Government.

6.8 Definition of Terms

6.8.1 Viewpoints

6.8.2 The local impacts of the proposed development concern the following viewpoints as defined within the ES. 2, 7, 8, 9, 12, 13, 14, 15, 28, 33, 34 and 35 all of which fall within the County Borough boundary.

6.8.3 Impacts

6.8.4 These concern the likely impact of the proposed development on perceptions of the wider upland landscape; for the purpose of recreational enjoyment and benefit.
6.8.5 For the purpose of the LIR the following terms were defined by the Council’s Town Planning Division’s Landscape Architect.

**Negative** The development would lead to a negative perception of the wider upland landscape when viewed from a specific viewpoint and might lead to a reduced willingness to engage with it in a proactive manner.

**Neutral** The development would lead to a neutral perception of the wider upland landscape when viewed from a specific viewpoint and would leave an unchanged willingness to engage with it in a proactive manner.

**Positive** The development would lead to a positive perception of the wider upland landscape when viewed from a specific viewpoint and might result in an increased willingness to engage with it in a proactive manner.

6.9 **Zone of Theoretical Visibility**

6.9.1 “The ZTV is the theoretical area from which part or all of the proposed development is potentially visible and broadly defines the study area for both the character and visual assessment.”

Chapter 8 Landscape and Visual Resources of the ES

6.9.2 A greater part of the County Borough affords theoretical visibility of the proposed development. This is augmented by southern areas of the Brecon Beacons National Park (BBNP) which, whilst physically lying within the County Borough; are administered by the BBNPA. These areas provide a setting for the town to the north. The greater part of the Merthyr Tydfil Landscape of Outstanding Historic Interest, the greater part of the communities to the north and west and the upland ridges to the south and south west forming part of the Gelligaer Landscape of Special Historic Interest will be afforded views of the proposed development.

6.9.3 These viewpoints are taken as representative starting points for examining the local impact of the development not only on the location of the viewpoint itself, but also as a common point by which to consider how this might affect areas surrounding it and including in particular local users and visitors to it.

6.10 **Welsh Index of Multiple Deprivation (WIMD) 2008**

6.10.1 The Welsh Index of Multiple Deprivation 2008 (WIMD) is the official measure of deprivation for small areas in Wales. It was developed for the Welsh Assembly Government by the Assembly’s Statistical Directorate and the Local Government Data Unit (Wales). It replaces the index which was produced in 2005. The index is made up of eight kinds of deprivation
amongst them health and environment. The following viewpoints fall within the top quarter of the most deprived wards in Wales:

Viewpoint 2: Merthyr Common South West
Viewpoint 7: Coly uchaf cairns
Viewpoint 8: Bedlinog
Viewpoint 9: Coed Morganwg Way
Viewpoint 14: Merthyr Tydfil – Galon Uchaf
Viewpoint 28: Merthyr Tydfil – Bogey Road
Viewpoint 34: Mynydd Merthyr

The impact on the above viewpoints and for communities associated with them is deemed to be negative.

6.11 Local Impact of the proposed development on representative viewpoints

6.11.1 Local impacts of the development on Viewpoint 2: Merthyr Common South West

This viewpoint falls within areas of land defined as Natural Greenspace (Merthyr Common) as defined under the Heads of the Valleys Greenspace Provision Report September 2007. This green space is continuous commencing as it does at Mynydd Cilfach-yr-encil in the south, to Dowlais Top in the north. A large area of land comprising FLRS has currently been removed from accessibility. However in 2025 this will become an important recreational resource. Currently large areas of Dowlais fail in respect of being within ‘400m of Accessible Natural Greenspace of Any Size’. (see Appendix 2). This situation is likely to improve in the near future with the construction of the Heads of the valleys Cycleway and other footpath improvements in the local area. However the long term accessibility to FLRS will be restricted until 2025.

A more detailed assessment is required than has been provided in the ES as to what role the proposed development will play as a detractor / attractor to encourage people locally to use the upland landscape for wider recreational and health benefits.

The area immediately to the south of this viewpoint encompasses part of the Regional Loops and Links Network Route 1 (Gelligaer Common via Bedlinog, Mynydd y Capel, Trelewis). Views of a post FLRS scenario for increasing numbers of walkers / cyclists would improve to a point in 2025 where the dominant remaining built infrastructure would be the proposed development itself. Longer term aspirations for the Taff Bargoed Valley are to be found in the Taff Bargoed Regeneration Strategy (which encourages
wider tourism potential to engage with the local landscape) and could be impeded by the development of this site.

There exists a need to expand the promotion, interpretation and recreational potential of the upland landscape of Gelligaer and Merthyr Commons which might be met through Planning Requirements / Obligations. If this were to be satisfactorily achieved, there may be some positive benefits to the landscape that surrounds it. However after considering the likely impact of the development on perceptions of the upland landscape and the readiness of visitors and local people to engage with it; the proposed development might not be conducive to the use of the upland areas for walking and other forms of outdoor recreation.

**Impact: Negative**

6.11.2 **Local impacts of the development on Viewpoint 7: Coly Uchaf Cairns**

Gelligaer Common is scattered with prehistoric and historic remains and the viewpoint selected is taken from Coly uchaf cairns; however the largest and most visible landscape feature is the Bronze Age is Carn Bugail round cairn, at the summit of Cefn Gelligaer (475m). The available view from this readily accessible location (a short walk from the car park off the minor road across the Common) is a widespread 360 degree panorama that takes in the upland landscape over a 20 mile radius. The view northwards to the Brecon Beacons is linked to the Bronze Age remains on Merthyr and Gelligaer Commons. This connected nature would be disrupted by the presence and scale of the development in the landscape. The presence of the proposed development in the landscape and its associated activities would challenge the viewer to comprehend the importance of an otherwise expansive and uninterrupted view northwards towards the Brecon Beacons and would result in an unparalleled magnitude of intrusive change. Bedlinog fails for the most part for being within ‘400m of Accessible Natural Greenspace of Any Size’. (see Appendix 2); opportunities to improve this situation rely heavily on the creation of new footpath links and promotion of the benefits of the wider landscape.

Loops and Links Network Route 1 (Gelligaer Common via Bedlinog, Mynydd y Capel, Trelewis) runs close to the south of this viewpoint. Longer term aspirations for the Taff Bargoed Valley are to be found in the Taff Bargoed Regeneration Strategy (which encourages wider tourism potential to engage with the local landscape) and could be impeded by the development of this site.
There exists a need to expand the promotion, interpretation and recreational potential of the upland landscape of Gelligaer and Merthyr Commons which could be met through Planning Requirements/Obligations. If this were to be satisfactorily achieved then the development might bring some positive benefits to the landscape that surrounds it. The proposed development would be clearly visible in the future baseline data and dominate views to the north. The dynamics of scale, intent and the visual presence of the proposal would be at odds with the wider enjoyment of this ancient upland landscape and as a result the conclusions drawn are that the impact of the development at a local level would lead to negative impacts on the visual experience of the landscape.

**Impact: Negative**

6.11.3 *Local impacts of the development on Viewpoint 8: Bedlinog*

The peaceful Taf Bargoed valley remains, along with intervening hillside to the west, one of the area’s best kept secrets. The viewpoint selected sits partially up the western valley side. The recreational potential offered by this unspoilt valley would find the development visible at its head. Being associated closely with the community of Bedlinog the upper Taff Bargoed remains largely unspoilt. Bedlinog fails for the most part for being within ‘400m of Accessible Natural Greenspace of Any Size’. *(see Appendix 2)*. Opportunity to improve accessibility relies heavily on the creation of new footpath links and promotion of the benefits of the wider landscape. The higher one moves to the west up the valley side the more prominent and visible the proposed development becomes. Accessibility to the enjoyment of the valley would be impinged upon by the proposed development and could thwart the potential to develop the upland landscape to the north for tourism/recreational purposes.

There exists a need to expand the promotion, interpretation and recreational potential of the upland landscape of Gelligaer and Merthyr Commons which could be met through Planning Requirements/Obligations. If this were to be satisfactorily achieved then the development might bring some positive benefits to the landscape that surrounds it. The viewpoint coincides with Loops and Links Network Route 1 (Gelligaer Common via Bedlinog, Mynydd y Capel, Trelewis) revealing the development to the north on leaving the village of Bedlinog. Greater revelations as a result of the removal of tips and the completion of FLRS would allow the proposed development to dominate the landscape. The effect would be to deter the outdoor visitor from exploring the landscape to the north.
It is therefore considered that the impact of the proposed development would be a negative one from this viewpoint. It would have at its head an incongruous development that was out of character and would militate against enjoyment of the open upland landscape. Longer term aspirations for the Taff Bargoed Valley are to be found in the *Taff Bargoed Regeneration Strategy* (which encourages wider tourism potential to engage with the local landscape). The success of tourism could be damaged by the proposed development. The overall impact of the proposed development would be negative one. This is particularly so in respect of the wider enjoyment of the landscape and the longer term aspirations of the of a regeneration strategy based on tourism and the wider enjoyment of outdoor space.

**Impact: Negative**

6.11.4 Local impacts of the development on Viewpoint 9: Coed Morganwg Way

Coed Morganwg Way is no longer promoted as a long distance footpath. However Gethin Woodland Park; the location of this viewpoint is a popular recreational spot for both walking and mountain biking. The landscape around the viewpoint is defined as Natural Greenspace ‘400m of Accessible Natural Greenspace of Any Size’ ([see Appendix 2](#)). Overall this visibility of the development albeit restricted would lead to a negative local impact; particularly as the upper slopes of Gethin afford more expansive views of the landscape to the east. There exists a natural low point between Merthyr Common South (Merthyr Cilfach yr encil) and Ffos y Fran to the north. It is this gap that permits views towards the proposed development.

This viewpoint coincides with Loops and Links Network Route 03Troedyrhiw via Gethin, Mynydd Merthyr, Pontygwaith and Aberfan. The route is central to the enjoyment and exploration of the countryside through this network.; which links with Route 01 above. A planned international commercial mountain bike facility would raise visitor expectations for enjoyment of the landscape surrounding this area and ultimately its sensitivity. Visibility of the proposed development within the context of the restored FLRS would impact overall on the visual attributes of this location and would be negative.

**Impact: Negative**

6.11.5 Local impacts of the development on Viewpoint 11: Merthyr Tydfil - Ynys-fach
The viewpoint does not fall within the top quarter of the most deprived wards in Wales. The index is made up of eight kinds of deprivation amongst them health and environment.

This viewpoint is an important location because it gives the viewer the opportunity to experience a foreshortened view across the town towards the extractive landscape to the east and to experience the relationship between the two. The proposed development does not appear extensively within the landscape. The chimney stack however would remain visible, which together with the plume would be a perceivable element. The viewpoint falls within a small area of natural green space that fronts the town of Merthyr to the west. This important inter urban recreational land carries the Taff Trail an important long distance footpath cycleway and a national Sustrans route. Upon completion of FLRS it is considered that the impact of the development will be negative on the wider expansive view across the historic urban landscape of Merthyr Tydfil town.

Loops and Links Network Route 19 Mountain Ash, Heolgerrig, Merthyr Tydfil links with the Taff Trail just to the north of this viewpoint taking cyclists and pedestrians westwards over the mountain to more elevated views across the landscape to the west. Return views would reveal a greater proportion of the proposed development with increase in altitude. With a £26 million investment poised for the town centre and improved linkages to the Ynysfach area, the profile of the areas surrounding this viewpoint will be substantially enhanced.

Overall the consideration is that the development would have a negative impact on residents and visitors of the town.

**Impact: Negative**

6.11.6 Local impacts of the development on Viewpoint 12: *Merthyr Tydfil – Cyfarthfa Park*

The viewpoint does not fall within the top quarter of the most deprived wards in Wales; the index is made up of eight kinds of deprivation amongst them health and environment although the users of Cyfarthfa Park come from wards close by that do fall within this category.

The chosen location of this Cyfarthfa Park viewpoint would suggest that the visibility of the proposed development is virtually imperceptible. This viewpoint is positioned on the lower lying ground of Cyfarthfa Park. Cyfarthfa Park remains central to the development of tourism and recreation as a gateway to the Brecon Beacons. The historic industrial landscape (nominated as a World Heritage Site by this Council) and the wider community benefits of health and recreation are linked to this
primary destination. Cyfarthfa Park is a very important local area of natural greenspace; the landscape around the viewpoint is defined as Natural Greenspace ‘400m of Accessible Natural Greenspace of Any Size’. (see Appendix 2). The Park exists as one of the few open spaces with relatively easy access within an otherwise densely built up area. It is therefore important that the quality of this green space is retained. Cyfarthfa Park is on the Cadw / ICOMOS Register of Parks and Gardens of Special Historic Interest in Wales. A more readily available view of the proposed development would be from the fields and pathways to the rear (east) of Cyfarthfa Castle; a Grade I listed building. The existence of Cyfarthfa Castle as an iron master's former residence and the closely associated ironworks (the largest in the world in the early 1800’s) help to make Cyfarthfa Castle the principal destination for many tourists and a proposed hub and tourist dissemination point in relation to the surrounding landscape.

The Park is currently undergoing a refurbishment to attract more tourists funded through the HLF.

**Impact: Neutral/Negative**

6.11.7 Local impacts of the development on Viewpoint 13:

*Merthyr Tydfil – Clwydyfagwyr*

The viewpoint does not fall within the top quarter of the most deprived wards in Wales; the index is made up of eight kinds of deprivation amongst them health and environment.

Large areas of land to the west of the A470(T) which includes this viewpoint fail in respect of being within ‘400m of Accessible Natural Greenspace of Any Size’. (see Appendix 2).

Loops and Links Network Route 19 Mountain Ash, Heolgerrig, Merthyr Tydfil runs to the south of this site and would be afforded very similar views of the proposed development. Its prominence in the landscape would be accentuated when the restoration strategy of the FLRS is complete. The Council’s aspirations are to promote the area for tourism as a clean, green, healthy environment.

The Council’s ‘Vision for Merthyr Tydfil 2020’ states:

“To strengthen our position as the regional centre for the Heads of the Valleys, and be a place to be proud of where:

*People want to live, work and have a healthy fulfilled life.*
In a restored landscape the local impact of this development would be negative and act as a detractor to the wider enjoyment of the countryside.

**Impact: Negative**

6.11.8 **Local impacts of the development on Viewpoint 14: Merthyr Tydfil – Galon Uchaf**

The viewpoint falls within the top quarter of the most deprived wards in Wales; the index is made up of eight kinds of deprivation amongst them health and environment.

This viewpoint forms an important area of Natural Greenspace known locally as the Ifor Tip sitting between the communities of Galon Uchaf and Penywern/Dowlais. Large areas of Gurnos, Galon Uchaf and Dowlais have poor Access to Natural Greenspace within 400m (Appendix 2). Within this viewpoint it is possible to comprehend the relationship between the terraced hillside housing and the extractive landscape to the skyline. This housing represents a vestige of the former industrial might of Dowlais as an iron producing town, the extractive landscape in the background; one of its hinterlands. The completion of the FLRS will provide a more ‘settled context’, however the net result would be a more prominent development high on the skyline.

The outcomes of relevant strategies that might be affected by this proposed development and which have inter visibility include the Nant Morlais Community Route (Pant to Penydarren), Penywern Ponds Recreational Project and the National Cycle Network Route 46.

Long and near views from these recreational areas would receive a negative impact from the proposed development.

**Impact: Negative**

6.11.9 **Local impacts of the development on Viewpoint 15: Merthyr Tydfil – Bryniau Quarries**

The viewpoint does not fall within the top quarter of the most deprived wards in Wales; the index is made up of eight kinds of deprivation amongst them health and environment.

The view from Bryniau Quarries is an important one locally and historically significant nationally; the surrounding landscape and its past industrial usage can be understood. It is possible to negotiate important historic features in the landscape which pertain to a strong sense of place.
associated with Merthyr Tydfil’s Industrial heritage. Furthermore there exist opportunities to capture the relationship between this viewpoint the wider extractive landscape and the Brecon Beacons National Park. Whilst this viewpoint does not coincide directly with natural green space as defined in the Heads of the Valleys Natural Greenspace Report (Appendix 2); it gives access to other areas such a Morlais Castle a much loved local landmark, vantage point and Scheduled Ancient Monument (SAM) which offer far reaching views across the surrounding landscape. The completion of FLRS to the north and the restoration of Trecatti would accentuate the presence of the development further.

Existing strategies relevant to this area are the North Merthyr Business Group which aims to promote tourism and economic development within the area among local businesses. Proximity to the BBNP and available views give reason to conclude that the local impact of the development would be a negative one.

Impact: Negative

6.11.10 Local impacts of the development on Viewpoint 28: Merthyr Tydfil – Bogey Road

This viewpoint falls within areas of land defined as Natural Greenspace (Merthyr Common) as defined under the Heads of the Valleys Greenspace Provision Report September 2007. This green space is continuous, commencing at Mynydd Cilfach – yr - encil in the south to Dowlais Top in the north. The viewpoint falls within the large area of land comprising the FLRS and has currently been removed from accessibility; however in 2025 this will become an important recreational resource. Currently large areas of Dowlais and Twynyrodyn fail in respect of being within ‘400m of Accessible Natural Greenspace of Any Size’. (see Appendix 2). The current Better Woodlands for Wales Programme to enhance and extend woodland cover and pedestrian access on Merthyr East Flank could potentially augment access up and onto Merthyr Common. The scale of built form of the proposed development of the proposed development as it would appear to walkers in this open upland restored landscape would be a dominant feature. The landscape, once restored, would become a far more acceptable environment in which to walk and enjoy the open space, particularly those areas to the north and west which constitute natural green space. The proposed development might deter walkers from making use of this landscape owing to the scale and the nature of the activities to be carried out there and every effort would be required to encourage usage of the upland landscape. However the long term accessibility to FLRS will be unavailable until 2025. Consideration needs to be given as to what role the proposed development will play as a detractor / attractor to
encourage people locally to use the upland landscape for wider recreational and health benefits.

Existing strategies relevant to this area are the Merthyr Tydfil Better Woodlands for Wales Programme will contribute towards extending access, managing and linking woodland cover on the Merthyr East Flank. Should planning obligations towards the development include an investment in the promotion and management of tourism, historic landscape and recreational upland footpath network then there is a possibility that the net impact of the development in a post 2025 scenario could be a positive one.

Impact: Negative

6.11.11 Local impacts of the development on Viewpoint 33: A465 east of ex Baverstocks Hotel

The viewpoint does not fall within the top quarter of the most deprived wards in Wales; the index is made up of eight kinds of deprivation amongst them health and environment.

This viewpoint which falls on the edge of accessible natural green space; and the BBNP is a gateway position as Merthyr is revealed to the visitor from the west. The development would impact directly on first impressions of the town from this direction. With a clear blue sky background the proposed development would be more prominent and visible; (not every day of the year are the weather conditions grey and overcast in the local area). By 2025 and the restoration of tips to the north, the development would be more prominent in the landscape. The view of the development in the future base data for 2025 has not been made available. However it can only be assumed that the proposed development would be far more prominent when the area had been reclaimed. Night time lighting would pinpoint the proposed development within an otherwise non illuminated upland landscape. Therefore it is evident that this viewpoint would receive a negative impact from the development.

There are no specific strategies that might be affected by this development although as an initial viewpoint for the visitor to the setting to the town it is possible that first impressions might be coloured by the presence of such a large development in the landscape and as a result this could have an effect on the willingness of passers by to enter or stay in the town.

It is therefore considered that as insufficient research has been carried out on the impact of the visible presence of the proposed development on tourism the impact of the development from a local perspective would be negative/neutral.

Impact: Neutral/Negative
6.11.12 Local impacts of the development on Viewpoint 34: Mynydd Merthyr

This viewpoint does not fall within natural green space and is not within, 400m of Accessible Natural Greenspace of Any Size'. (see Appendix 2). However it has footpath access from the Trevithick and Taff Trails and links to a viewpoint on Loops and Links Route 12. Figures to verify the extent of usage of this location are not available.

Loops and Links Network Route 12: Merthyr Tydfil runs to the west and north of this viewpoint and the viewpoint itself is identified on the Loops and Links Map. The prominence of the proposed development in the landscape would be accentuated when the adjacent tips have been re-shaped at the completion of the FLRS scheme. Expansive upland views on this popular ridgeline would be affected by the presence of the development in this upland location. The distant uninterrupted views towards the Brecon Beacons would be compromised by the presence of the development which would alter the context of the view.

The scale of the structure competes with the distant peaks of the Brecon Beacons in an unacceptable negative manner.

Impact: Negative

6.11.13 Local impacts of the development on Viewpoint 35: Mynydd Aberdar

This viewpoint does not fall within the top quarter of the most deprived wards in Wales; the index is made up of eight kinds of deprivation amongst them health and environment.

This viewpoint falls within land defined as natural green space ‘400m of Accessible Natural Greenspace of Any Size’. (see Appendix 2). This is a recreational location which offers walkers the opportunity to pass from the Cynon Valley over to Merthyr on foot. The proposed development sits in a totemic fashion on the opposite side of the valley drawing the eye and stigmatising the view. What has not been revealed, but which would accentuate the impact of the proposed development, would be the completion and the re-greening of FLRS to the north.

There are no specific strategies that might be affected by this development.

Impact: Neutral/Negative
7.0 DESIGN IMPACTS

7.1 Design Commission for Wales Design Review Panel Report

7.1.2 As advised earlier in this report, Covanta presented the proposed scheme to the above Design Review Panel in April 2010. Following receipt of the DCfW’s detailed comments the scheme was re-presented to the Panel in June 2010.

7.1.3 The Design Commission’s reports on each presentation appear in full at Appendix 1. The key points raised are as follows:-

April 2010

- The DCfW Design Review Panel acknowledged the benefits of the EfW process for treating waste but consider the scheme presented to be a “poor design response”;

- The proposed development needs to set a precedent by demonstrating exemplary design and operational processes;

- DCfW expressed doubts about the ability of the proposed development to meet WAG aspirations for EfW plants to be at least 60% efficient. They encourage the establishment of LA corporate support for use of waste heat in public buildings;

- The Panel encouraged a commitment to achieving a Very Good BREEAM rating;

- Opportunities for co-location of complementary technologies should be maximised;

- The Panel were not convinced by the architectural approach presented, they consider it vital that the building is well integrated into the landscape. The potential for sinking the building into the ground and / or sculpting the landscape around it should be explored;

- The longer term community and employment benefits of the proposed development should be emphasised and may go some way to alleviating significant local protest.

June 2010

“The Panel was encouraged by the progress that has been made since the last review. We think this is a good design response but major issues still remain to be resolved.”
The Key points raised were:-

- The Panel welcome the potential reuse of waste heat and trust that arrangements to deliver it will be in place before the application is made as it is a fundamental aspect of the scheme’s overall sustainability;

- The Panel expect the LPA to support and encourage similar co-locations;

- The simplified roof form is an improvement on the previous design. The Panel suggested separating the wings of the building from the main roof if this results in a clearer definition between the two and results in a more elegant solution. Eaves and verge treatment need to be accurately presented in the application;

- The Panel suggested improving daylight levels internally;

- The rationale for not lowering the building further into the ground is accepted;

- Viewpoints should be agreed with the LPA and accurate photomontages provided. The effect of additional electricity lines and high level lighting should be mitigated for;

- Consideration should be given to two or three smaller stacks rather than one taller stack;

- The community benefits, especially local employment and training were welcomed.

7.2 Design Appraisal

7.2.1 The character of the proposed development is described in the Design and Access Statement as follows:

“The interrelationship between the site and its respective surrounding landscape is of key importance to sustain and enhance local character. The scale and massing of the EfW scheme would result in it forming a prominent new element in a partially rural landscape. Through careful choice of roofline profile and the treatment of elevations, the shape and texture of the proposed facility has been designed to visually blend into the existing landscape. External material choice makes reference to local vernacular and the industrial and coal mining heritage.”

7.2.2 The building has been described in the DAS as having “an arbitrary roof form....introduced to reduce the visual impact of the taller facility elements when viewed from both close and distant viewpoints.”
7.2.3 In terms of its appearance the DAS states “The architecture of the facility reflects the nature of prominent views and relates directly to the immediate topography”.

7.2.4 The DAS attempts to explain the design concept applied to the proposed development and the reason for its size as being directly related to its function as an EfW facility. The optimum capacity of the facility, as determined by Covanta is 750,000 tpa, comprising three streams, each with a capacity of 250,000tpa, a single stream turbine generation set and an air-cooled condenser. The external envelope surrounding the internal equipment is influenced by the internal height requirements of each waste stream and the height of the stack above ground level is influenced by air dispersion calculations.

7.2.5 The DAS also attempts to justify the materials and colours proposed partly through the provision of photomontages. Notwithstanding this, the Council remain concerned at the scale, mass and height of the proposed building in this upland location, which is otherwise largely devoid of any built development.

7.2.6 As a result of its height, standing at 50m and the associated chimney stacks standing at 115m high, punctuating the skyline, views of the EfW facility will be achieved from numerous areas within and outside of the Borough and by virtue of its incongruous nature this is considered to be to the detriment of the visual amenity of the area.

7.2.7 The visual impact of the mass of the building and height of the stack in this upland setting is considered to be negative.
8.0 CULTURAL HERITAGE IMPACTS

8.1 Historical Background

8.1.1 The proposed development is located within an area defined as the Merthyr Tydfil Historic Landscape (Part 2.1 of the Register of Landscapes of Outstanding Historic Interest in Wales). Historically, the landscape of Merthyr Tydfil contained the mineral resources required to conveniently manufacture iron, making it the world’s largest iron-making town in the early to mid-19th Century. This extraction process has shaped the current topography and landscape characteristics that exist today.

8.1.2 Merthyr Tydfil retains much of its industrial landscape character and remains an example of an internationally important industrial landscape displaying man’s exploitation of the landscape. This is illustrated through the survival of remains from its four ironworks: Dowlais; Plymouth; Cyfarthfa and Penydarren, including patch workings, water power leats, tips, industrial housing and communication routes and other remnants of the coal mining industry.

8.1.3 Dowlais was the first ironworks to be established in Merthyr Tydfil in 1757. A small amount of nationally recognised structures associated with the ironworks still exist today, including the Works Blast Engine House and Dowlais Stables. Of key importance to Dowlais Ironworks was the Dowlais Free Drainage System (DFDS), which evolved between 1818-1890 to collect, store and move water between the industrial facilities at Dowlais, comprising some 42KM of watercourses above and below ground. In spite of its national and international significance, only a small part is legally protected, notably the Sarn Howell Pond and Watercourses and the Timber Aqueduct over the former Taff Bargoed Railway at Cwmbargoed. Both are located within the visual envelope of the proposed development site.

8.2 Development Location

8.2.1 The proposed development is located within a landscape character area formerly associated with the Dowlais Ironworks, to the north-east of Merthyr Tydfil Historic Landscape characterised by Glamorgan-Gwent Archaeological Trust as Historic Landscape Character Area (HLCA) 031 (Merthyr Common Central). This area is considered important as an extractive landscape of the latter half of the 18th Century containing coal and ironstone resource.

8.2.2 Merthyr Common Central is characterised by an extensive area of industrial sites associated with the nationally and internationally important ironworks of Dowlais between the late 18th and 19th Centuries. The
features within the area are associated with water management and mineral extraction. The area also includes altered Common overlooking the settlements of Merthyr Tydfil and Dowlais.

8.2.3 A key overriding feature of the landscape is the survival of characteristics relating to water management. This includes the numerous ponds and leats, which make up the aforementioned DFDS. The well preserved system forms a notable, visible link to the former Dowlais works, and was fundamental to its existence by providing a secure water supply and power generation.

8.2.4 Other dominant landscape characteristics include various coal and ironstone outcrops associated with pit works of the 18th and 19th Centuries and rail infrastructure consisting of cuttings and track beds for the Penydarren Ironworks Railways. Above ground remains of industrial settlements adjacent to the site have been removed.

8.2.5 In terms of its general survival, Landmap classifies the area as an Outstanding Historic Landscape (Landmap is the process of gathering, understanding and interpreting information about the landscape. The methodology has been developed by the Countryside Council for Wales (CCW) in conjunction with the Wales Landscape Partnership Group). This classification reflects its national importance as an industrial landscape created by the upsurge in coal and ironstone extraction in the latter half of the 18th Century. Furthermore, the area maintains a well-preserved complex of water-management features associated with the Dowlais Ironworks and the remains of an Ironworks settlement at Ffos-y-Fran.

8.2.6 The area is assessed as retaining an Outstanding integrity, containing well-preserved water management features associated with the ironworks. The survival of the area is also considered to be Outstanding, containing substantial archaeological records of workings ranging from the 18th and 20th Centuries.

8.2.7 Furthermore, the condition, rarity and potential of the area also remains classified as ‘High’. This is attributed to the documented study of the area through landscape characterisation and the unique structures forming the DFDS.

8.3 Development Setting

8.3.1 The wider setting of the proposed development is formed by the designated Merthyr Tydfil Historic Landscape (Part 2.1 of the Register of Landscapes of Outstanding Historic Interest in Wales), referred to in the ‘Historical Background’ section of this LIR. The Historic Landscape contains a number of statutorily Listed Buildings/Structures, Locally Listed
Buildings/Structures and SAMs which may be affected by the development. This is detailed within Section 14 (Cultural Heritage) of the ES.

8.3.2 The south and south-east of the Application Site is formed by the designated Special Historic Landscape of Gelligaer Common (Part 2.2 of the Register of Landscapes of Special Historic Interest in Wales). This area is formed by the rare survival of an area of upland moor, which is diverse in archaeological resource, containing a number of periods and types. The moorland contains a number of isolated farms, improved and enclosed pasture on its western flank and displays a remarkable continuity of occupation.

8.3.3 Nearer the site is the land reclamation scheme, (FLRS), forming a setting of poor amenity. However, generally, the area is dissected by a number of natural and engineered watercourses exploited as part of the DFDS. The system is a vital part of archaeology, interpreting the working industrial history of Dowlais and Merthyr Tydfil. The DFDS is mentioned in detail in the Merthyr Tydfil Historic Landscape Management Plan (Cadw/CCW), which states:

“Water was of key importance to the ironworks. The Dowlais Free Drainage system evolved over the period c.1818-1890 to collect, store and move water between the industrial facilities at Dowlais and is of national and international heritage significance. It extends over a wide area (HLCAs 008, 031, 035, 039, 040, 041), comprising some 42 kilometres of watercourses. Despite its undoubted heritage significance, only a small part is legally protected”.

8.3.4 The Landscape Management Plan emphasises the DFDS’s international importance as a unique invention during the 18th and early 19th Centuries. It consisted of a complex system of water collection ditches, leats, streams, tunnels and surface reservoirs to supply the Dowlais Iron Works with water for the production of steam. It evolved over a period of 70 years to serve the Dowlais Ironworks. The area contains the Scheduled Sarn Howell Pond which is shown on 19th Century plans of Merthyr Tydfil. Furthermore, most known elements of the DFDS are still operational, adding to its significance as a working relic of the 19th Century.

8.3.5 In addition to watercourses, the immediate setting of the site is also formed by remnants of extraction industries and former railway infrastructure.
8.4 Site Constraints

8.4.1 The Application Site for the proposed development is outlined in red on Plan 2.1 of the DCO submission.

8.4.2 It is considered to be archaeologically sensitive, being located adjacent to Sam Howell Pond SAM and within an area traditionally used as an extractive landscape with extensive watercourses, which formerly fed the Dowlais Iron Works.

8.4.3 Accordingly, the site is traversed by a number of historic watercourses, including the culverted Bargoed Taf and Nant Gyrawd as well as components of the DFDS, including leats and a reservoir. These water management features have a physical connection with vast areas of landscape surrounding the site. The watercourses are considered to be of importance, and its water management forms a distinct and unique feature of the area.

8.4.4 There remain a number of surviving features on the site relating to transport infrastructure. This includes associated communications lines, remnants of signal boxes, junctions and stations associated with the Dowlais Iron Co Railway. Much of the railway line is retained as a working line associated with the FLRS, albeit in a modified form. Much of the transport infrastructure on the site survives through earthworks and damaged structures. Such features on the site are a reflection of its industrial archaeology.

8.4.5 The site retains an industrial use associated with extractive activities. It contains a washery established during the latter part of the 20th Century, with a number of tips and lagoons. Whilst the 20th Century elements of the site are not of such historic value, they retain a character and use of the area, which has been prevalent since the 19th Century through the extraction of coal and ironstone.

8.4.6 Within the site boundary stands a block of formerly domestic structures, emphasising the use of the site for domestic structures associated with extractive industry.

8.4.6 Cumulatively, these features interpret the historic use of the land, containing the variation of structures associated with extractive industry.

8.4.7 Below is a summary of the characteristics of the area:

- Historic water courses and water management features by means of the DFDS;
8.5 **Area Constraints**

8.5.1 The area defined as the immediate environs is within a 1km radius of the Application Site. This radius has been chosen as it reflects the areas which are within an immediate visibility of the proposed development. This area is shown in Figure 8.2 (Appendix 8) of the ES. The wider setting of this development was described in the ‘Development Setting’ section of this LIR.

8.5.2 The immediate development setting largely consists of common land to the north and west, with more formalised agricultural holdings to the south east. The setting area of the development contains a nationally important landscape largely created through the upsurge in coal and ironstone extraction during the latter half of the 18th Century, whereby the surface workings provided the raw materials for the Dowlais Ironworks.

8.5.3 The area principally contains parts of the DFDS, the genesis of which dates back to c1818. The most notable parts within the setting of the development are the Sarn Howell Pond and Watercourses SAM and Grade II Listed Aqueduct over the former Cwmbargoed railway to the north and west of the site, respectively. These elements are of unique landscape importance to Merthyr Tydfil in forming a visible link between Merthyr Common and the Dowlais Ironworks.

8.5.4 Other dominant characteristics of the surrounding area include ironstone and coal outcrop mining, as well as self-draining levels associated with the Iron Works of Dowlais in the 18th-20th Centuries. Later 20th Century works include extractive and tipping activities. These landscape features are generally located to the north and west of the Application Site.

8.5.5 As for transport infrastructure, the area is well represented by means of remnants from the Great Western and Rhymney Railways’ Taf Bargoed Joint Line (late 19th Century), including former railway bridges, embankments and cuttings to the west of the site. Remaining features have largely been removed by successive development.

8.5.6 To the south of the site are areas of improved/unimproved common at Garth Fawr. These areas contain important relict landscapes of prehistoric settlement and associated remains, mixed with industrial extractive features. The remaining relict features, including surface remains, prehistoric settlement and funerary features have a high group value.
8.5.7 The surrounding areas of the site appear to be the confluence of two separate eras within Merthyr Tydfil’s history: the pre-historic settlement with associated ritual landmarks and the post-medieval and industrial activity associated with extractive works and associated infrastructure for the production of iron.

8.5.8 Below is a summary of the characteristics of the area:

- Nationally important designations;
- Water management features by means of the DFDS;
- Nationally important extractive landscape and associated activity;
- Industrial and post medieval upland settlement;
- Relict pre-historic settlement and associated remains;
- Industrially altered common;
- Transportation features;
- Confluence of two distinct characters.

8.6 Designations

8.6.1 In terms of cultural heritage designations, there are 15 records of undesignated cultural heritage assets located within the Application Site boundary. These records derive from those stored within the National Monuments Record (administered by the Royal Commission for the Ancient and Historical Monuments in Wales) and the Historic Environment Record. One additional record (Hafod) was identified within the ES accompanying the DCO. This relates to a house, part of the transhumance system followed in rural Wales, used as a summer settlement in an upland location. A full list of records is shown in figure CH1 of Appendix 3.

8.6.2 In addition to those designations which exist within the site, a number of cultural heritage assets are located within a vicinity of 200m of the site. These assets include a Scheduled Ancient Monument, and a Listed Building. A further five Historic Environment Records (HER) and 59 National Monument Records (NMR) were returned from a search made by Merthyr Tydfil County Borough Council. A full list of records is shown in figure CH2 of Appendix 3.

8.6.3 A further number of designated sites are affected by the proposals, including the setting of Conservation Areas, Listed Buildings, Historic Parks and Gardens, Scheduled Ancient Monuments, as well as HERs and NMRs. The relevant sites within the ZTV have been identified within the ES.
8.7 Mitigation

8.7.1 The strategy submitted within the Cultural Heritage Section of the ES (Paras 14.171 – 14.176) does not appear to be sufficiently detailed and is rather generic for a project of this nature, directly affecting a number of sites. A number of Requirements are contained within the Draft DCO which necessitate the submission of a written scheme of investigation and an archaeological watching brief. The proposed methods for this should have been outlined within the ES in order for the full implications of the development on cultural heritage to be understood and addressed. They were not.

8.7.2 Should the DCO be granted, it is considered that the proposed DCO Requirements 14(1) to 14(4) are necessary in respect of this scheme.

8.7.3 There remain a number of areas of concern which the Requirements should seek to address. It is of concern that the sole method of mitigation contained within the ES is the relocation of an access road to avoid contact with the Sarn Howell Pond and Watercourses SAM. Whilst the character and integrity of heritage assets were a consideration in the process, there appears to be no consideration towards the setting of this heritage asset by means of building design alterations or references. Any DCO which may be forthcoming should require that proposals are submitted to avoid any unintended disturbance or alteration to the integrity of this Scheduled Ancient Monument.

8.7.4 It is also of concern that excavation is required for the associated CHP pipeline, which is mentioned within the ES. Whilst this is associated development a mitigation strategy is essential to address the possible occurrence of an exposure of important underground archaeological resource upon submission of this scheme.

8.7.5 There is some uncertainty as to the method and extent of damage which may be caused by the decommissioning of the plant following the end of its beneficial use. A requirement to control the impacts of decommissioning on the historic environment, as well as other subject areas, is essential.

8.7.6 There appears to be little mitigation or assessment of the effects on each historic asset on site. The mitigation must determine how the development impacts on each of the 16 historic environment features on site, and how this impact can be mitigated for. This may be through the relocation of certain site components or re-design of features to offer better access to and acknowledge of heritage features.
8.8 Impacts on Local Authority Area

8.8.1 The potential effects on the Authority area are likely to arise from the following activities:

- Construction of building;
- Hardstandings for construction cranes;
- Excavation of trenches and drilling for foundations;
- Access and maintenance roads (both temporary and permanent);
- Ancillary structures;
- Associated groundworks and earth moving activities; and
- Other or associated engineering works.

8.8.2 In accordance with “Advice Note One: Local Impact Reports”, the impact on various heritage assets are categorised as positive, negative or neutral, below:

**Positive** – Enhancement of heritage asset, by means of increased maintenance, refurbishment or restoration.

**Neutral** – Little or no impact on the heritage asset by means of change to its integrity, character or setting

**Negative** – Major impact on the heritage asset by means of unsympathetic alteration to setting, context, character or total loss.

8.8.3 This assessment on cultural heritage assets is based on the current baseline and site conditions as at February 2011. No future baselines have been assessed within this LIR as the ES has not provided sufficient information on the condition of the environs of the Application Site post-scheme completion.

8.9 Cultural Heritage Assets within site

8.9.1 The development is considered to have a direct or potential impact on 16 sites, by virtue of their location within the Application Site boundary. A table of all known archaeological features within the proposed development site and their impact is listed at Table CH3 of Appendix 3 of this LIR. The submitted ES does not contain sufficient information as to the specific effects on archaeological features. In the absence of detailed information, the impacts of the development are predicted from the proposed site layout, construction methodology and location of current assets.

8.9.2 The development will result in the complete loss of most on-site heritage assets. Most features within Table CH3 of Appendix 3 are attributed to
former industrial activities, which were prevalent on site. From information contained within the ES, the importance of the majority of these heritage assets is classified as ‘low’ individually, in part due to their current condition. However, the relict features which exist on site still provide an interpretation of the historic past, and as such, their removal will be a loss to the historic environment of Merthyr Tydfil.

8.9.3 More important features within the site are physically connected to the DFDS by means of leats or reservoirs, the importance of which has been emphasised in previous sections of this report. The majority of development within the site is designed to avoid these water features. A DFDS dam, pond and leat is located within an area designated as a temporary ‘laydown area’, separated by a security fence alongside the Dowlais Iron Co. Railway. An electricity line is also to run underground in this area. There is very little information within the ES to suggest what the function of the laydown area is, and how the activities will impact upon the historic environment features comprising of the DFDS. This impact cannot be assessed fully at this stage by the Council on the basis of the information supplied to date.

8.9.4 The ES notes that much of the archaeological resources have been removed over time. Therefore, an argument could be made for the retention of interpretive features. The proposed development appears to be laid out in a rigid manner. There appears to be no attempt to incorporate nor respect current landscape or archaeological features, contrary to national planning policy. The ES does not contain a justification for this failure to avoid such archaeological features. It is essential that evidence or a rationale is provided to justify the removal of such archaeological features.

8.9.5 **Impact:** Given that there will be no refurbishment or reinstatement of current heritage features and a complete loss of some heritage features, it is considered that the overall impact upon individual heritage features within the site will be **Negative**.

8.10 **Group Impacts**

8.10.1 The construction of buildings and boundaries will result in an impact upon the group value of the remaining cultural heritage assets on site. The on site heritage assets are not statutorily protected under the Planning (Listed Buildings and Conservation Areas) Act 1990 nor the Ancient Monuments and Archaeological Areas Act 1979. However they have a degree of protection under national planning policy. These assets provide an interpretation of the extractive landscape that characterises Merthyr Common. The removal of some of these assets will result in the removal of components which aid in interpreting the landscape in its entirety.
8.10.2 The proposals helpfully retain highly important sections of the DFDS, particularly leats and a reservoir, as well as the avoidance of a scheduled section. With the construction of buildings however, the natural setting of these features will be removed. Furthermore, the visual connection among the components will be removed.

8.10.3 **Impact:** Overall, it is considered that the impact upon the group value of heritage assets will be **Negative**.

8.11 **Cultural Heritage Assets in close proximity of site (1km)**

8.11.1 In the absence of Cadw guidance on the subject, English Heritage (“The Setting of Heritage Assets”: English Heritage Guidance – Consultation draft, 2010) notes that, when considering proposals which impact upon settings, the following should be considered:

- The number and significance of heritage assets affected;
- Proximity;
- Prominence;
- Scale;
- The duration and reversibility of change;
- The sensitivity of heritage assets to changes in setting;
- The implications of noise, movement, light and other factors;
- Environmental changes;
- Precise location;
- Screening; and
- Detailed aspects of design.

8.11.2 The submitted ES does not contain sufficient information as to the specific effects on such archaeological features. Accordingly, a brief assessment is made below collectively assessing assets within the vicinity of the site, taking into account the above factors.

8.11.3 **Number and Significance of Assets**

The development could potentially impact on 67 assets, which are located within a 1km radius of the site. This includes one Scheduled Ancient Monument, a Listed Building and 65 assets which are unprotected by the
Ancient Monuments and Archaeological Areas Act 1979 and the Planning (Listed Buildings and Conservation Areas) Act 1990. Thus, the assets have a mixed value, containing a number which are locally significant (those which are associated with extractive activity) and nationally significant (those which are associated with the DFDS).

The majority of these assets have a functional relationship with their associated landscape setting, in utilising the resource within the ground, notably coal and ironstone extraction, and water abstraction. This landscape offers a raison d’être to these assets. The various assets in and around the site form part of the relict type landscape and various ponds offer an aesthetic presence from a distance. However, it is acknowledged that the majority of assets are not visually apparent as individual structures, but rather as collective elements.

There are clear relationships among the various components of the DFDS, which contribute to its significance and rarity as a surviving gravity-fed water system and attests to its national importance. However, the extent and speed of change within the area containing widespread industrial extraction reduces its significance in this respect.

### 8.11.4 Proximity

All assets considered in this LIR are within 1km of the site. A number of assets are located within 10 metres of the site boundary, such as the Sarn Howell Pond SAM and a small amount of leats and railway infrastructure.

### 8.11.5 Prominence

The majority of heritage assets surrounding the site are generally not visually apparent and require closer inspection to view their extent. However, there are a number of assets, such as watercourses and remnants of built structures which are prominent in scale, even to the casual observer. They include railway bridges, abutments and ponds. The assets to the north of the site will have a higher prominence due to their location at a higher elevation.

### 8.11.6 Scale

In terms of scale, there are a number of engineered linear and water storage features within the vicinity of the site. Individually, these elements are generally small in scale and do not extend above ground level. However, collectively these features are scattered around the local landscape which contains very little built development. Their comparative scale is increased somewhat in this respect.
8.11.7 Duration and Reversibility of Change

The proposed development is intended to be a permanent feature in the landscape. However, whilst decommissioning may occur within 35 years of its commencement, the proposed development is not truly reversible. It is likely to irrevocably change the current landform and remove a number of monuments on site. The site cannot therefore revert to its original form.

8.11.8 Sensitivity to Change

Many of the heritage assets within the vicinity of the site have been subject to constant change in the surrounding landscape due to extractive activities. These features have still remained in context in spite of these changes and, as such, have a relatively high capacity for change. The proposals will result in the introduction of built form, which will result in a different and dramatic change in the locality.

8.11.9 Implications of noise, movement, light and other factors

The introduction of factors such as noise, movement and light (illumination) are likely to have a harmful impact upon the significance of a heritage asset, particularly if the heritage asset is in a rural location. Current assets are located in an area where extensive extraction occurs, where a number of vehicles and plant with associated noise and movements are present, already providing a detracting feature. Such activities will intensify with the proposed development and will produce a detrimental impact on local heritage assets with the introduction of further movements, noise and stack plume.

8.11.10 Environmental Changes

Other environmental changes may occur as part of the development. This includes a change in water quality and soil chemistry within the setting of a historic asset (Detailed in Section 9: Hydrogeology and Ground Conditions of the ES). There is likely to be some dust and disturbance to the local water system as a result of the development, though no contamination is predicted. As a result, the quality of water passing through various components of the DFDS, such as leats and reservoirs is likely to be of a lower quality.

8.11.11 Precise Location

The proposed development is located within a designated landscape. The site is not within any deliberately constructed view, such as an avenue or ride. However, it is located on an overlooking hillside, and as such, may have a considerable impact upon the intervisibility among related heritage
assets. Locally, these features relate to the DFDS, though the site does not affect long distance intervisibility among other known connected assets.

8.11.12 Screening

The scale of the proposed development is such that it does not allow for any beneficial effects from screening.

8.11.13 Detailed Aspects of Design

The proposed development was designed to avoid the Sarn Howell Pond SAM. Whilst this design change was required to avoid affecting its integrity, there still remains the effect on the setting of heritage assets. The ES does not contain any information as to how the scheme was designed to respect such features.

8.11.14 Summary of Impacts

There will be a significant alteration to the setting of nearby heritage assets, a full summary of which is noted in table CH4 of Appendix 4 of this LIR. The area is characterised as an extractive landscape, with the continuation of such activities in a modern form. The proposed development will comprise a large building of 50 metres in height, with a stack of 115 metres, as measured from adjoining ground level. Whilst features within this landscape have endured constant change, the proposed development represents a permanent built form. This will remove the openness of the setting of heritage assets nearer to the proposed site. Longer views from more distant assets will also be affected as well as the open landscape character of their settings.

Many of the heritage assets within the vicinity are related to the various components of coal and ironstone extraction and, as such, hold a high group value. Paragraph 14.76 of the Cultural Heritage section of the ES acknowledges that the original settings of heritage assets do not survive in their original form, nor were they designed to have a setting. Whilst this statement is correct, the current setting bears a resemblance to the incidental setting of these features, which is that of an extractive landscape where such activities still persist, albeit in a modern form by means of the FLRS. This activity will cease in 2025. A full assessment of the impacts on heritage assets post-2025 is not made in the ES and therefore cannot be addressed sufficiently in this LIR.

The visual relationship between and among some of these components in the landscape will be altered as a result of the proposed development with the introduction of a large building and stack within the landscape. This
will largely affect the features associated with the DFDS. Visual connections among heritage features around the site will be fragmented as a result of the proposed development. Open settings to such assets will also be lost.

Features which are immediately near the proposed development will suffer the most severe impacts to their setting. The proposed building and stack is to be of a large scale and height and mass and will have an overbearing impact upon smaller heritage assets close to the site, including the Sarn Howell Pond SAM and features associated with the DFDS and ironstone extraction. The construction of a large modern building will also alter the local landscape character as a relict extraction landscape.

There will be minimal impact upon heritage assets to the south east of the site. These assets are located within improved/unimproved common along with medieval/post-medieval fields. Significant alterations to settings of the monuments located within these areas were made in the previous century, and their contexts have been altered somewhat by means of extraction and later FLRS. Views from these monuments are currently of extractive activity, which is not in character with such features as well as modern boundaries. The proposed development will not alter this setting significantly, with the location of a large tip in the background. However, the development will be further revealed upon completion of the FLRS in 2025 and beyond.

8.11.15 Impact: Overall, the proposals will have a **Negative** impact upon the settings of nearby heritage assets.

8.12 Cultural Heritage Assets over 1km from site

8.12.1 The effects on the setting of more distant and designated heritage assets have largely been assessed within the ES. This assessment analysed whether the building and stack was visible from Scheduled Ancient Monuments, and assessed the effect of the development. This concluded that impacts would be limited to ‘slight adverse’ and ‘neutral’.

8.12.2 Whilst this LIR does not elaborate in detail upon the specific effects on individual SAMs located more than 1km from the site, as this was completed at ES stage, it considers that the ES underestimates the impact upon a particular group of SAMs, viz the Gelligaer Common Round Cairns (GM220), Platform Houses and Cairn Cemetery (GM314) and Roman Road (GM556).

8.12.3 It is considered that the impact upon these cultural heritage assets located within Gelligaer Common would be far greater than that predicted within the ES. These Scheduled cultural heritage features are located within
desolate landscapes surrounded by open upland moor and a distinctive undulating topography. Their setting appears to contain very little apparent development, with high quality panoramic views. The proposed development would introduce a large feature to the north, interrupting this natural and agricultural setting around these monuments. Therefore, the effect on this group of monuments is likely to be damaging.

8.12.4 **Impact:** The ES states that there would be a ‘slight adverse’ impact on a total of 29 Scheduled Ancient Monuments (including those within 1km of the site). Cumulatively, slight adverse impacts upon over half of the Scheduled Ancient Monuments within the County Borough may have a greater impact than anticipated within the ES. In this regard, the overall impact upon distant heritage assets is considered to be **Negative**.

8.13 **Historic Landscape Impacts**

8.13.1 The effect of the proposals on the historic landscapes of Merthyr Tydfil and Gelligaer Common were the subject of an Assessment of the Significance of the Impact of Development on Historic Landscape Areas (“ASIDOHL2”). The outcome of this ASIDOHL2 predicts a ‘Moderate Adverse’ impact on the Merthyr Tydfil and Gelligaer Historic Landscapes.

8.13.2 Whilst the ASIDOHL2 acknowledges the impacts of the scheme to an extent, additional Local Impacts have been identified in this report. The ES has failed to identify these impacts. Table CH5 of **Appendix 5** of this LIR displays a number of additional impacts considered as part of this LIR, which were not noted within the ES.

8.13.3 The issues relate to the scale and footprint of the development which will not only directly affect a large site, but will be viewed from a number of HLCAs within the Merthyr Tydfil Historic Landscape and Gelligaer Common.

8.13.4 The Register of Special Historic Landscapes in Wales acknowledges that Gelligaer common is “visually under threat on all sides from a variety of modern sources”. It is considered that the proposed development will continue to threaten the historic landscape in this respect. Its potential to be viewed extensively from the characteristically desolate Pen Garnbugail will have a harmful impact upon this historic landscape.

8.13.5 Within the Merthyr Tydfil Outstanding Historic Landscape there are long views towards the site across the valley. Much of this historic landscape has been developed industrially at the valley floor. The proposals will add further industrial scale development to a visible mountain top.
8.13.6 The previous land use has removed much of the archaeological resource of the locality. However, some resources which remain are important and should be protected as they form an integral part of the historic landscape. The development produces wholesale change to an area of historic landscape.

8.13.7 Finally, the proposals are likely to have an impact upon a site of outstanding international value which for this reason was nominated by the Council as a potential World Heritage Site. The proposed development site, whilst not located within the initial submitted boundary, will have an impact upon its setting as an uncharacteristic and large scale development.

8.13.8 **Impact:** Overall, the proposals will have a **Negative** impact upon the local historic landscape.

8.14 **Planning Obligations**

8.14.1 The inclusion of a visitors’ centre within the proposed development will provide some opportunity for the display of educational resource associated with the site, its former uses and the surrounding landscape, which is of a benefit to the area. Furthermore, the provision of an archaeological watching brief will allow for features to be recorded or relocated sympathetically. These obligations form part of the draft DCO.

8.14.2 The Council have suggested that a Historic Landscape interpretation and management plan taking account of sequential changes to the upland landscape leading up to and including a post 2025 scenario is submitted as part of the proposals. This management plan should encourage and make provision for access to enjoyment of the wider landscape and heritage features which form part of the landscape. A payment is also proposed in order for the Council to implement recommendations within the plan, such as improved access and maintenance to heritage features. This is shown in table CH6 of Appendix 6 of this LIR.

8.14.3 **Impact:** Overall, the obligations which form part of the proposals are likely to generate a **Positive** impact from the development, in improving surrounding landscapes and interpretation thereof.

8.15 **Conclusions**

8.15.1 In considering the impacts on the typologies of heritage assets, the proposals are likely to have a detrimental impact on cultural heritage assets within the County Borough. This spawns from the removal of some heritage assets, effect on the settings of designated and non-designated
key industrial remains and an impact upon the historic landscapes of Merthyr Tydfil and Gelligaer Common.

8.15.2 Adverse impacts upon nationally important SAMs are largely confined to their settings, which are protected by national policy. The proposed development location adjacent to the Sarn Howell Pond SAM, as well as its impact upon more distant SAMs at Gelligaer Common is a key consideration in this LIR. Some non designated monuments will also be removed, or their settings altered. This will also impact upon the cultural heritage of Merthyr Tydfil negatively. The setting, character and preservation of non scheduled monuments is also addressed in national policy.

8.15.3 Impact: Based on the information provided within the ES, it is concluded that the development will have an overall Negative impact upon cultural heritage, in spite of the potential advantages in terms of planning obligations and requirements.
9.0 NATURAL ENVIRONMENT IMPACTS

9.1 There are aspects of the ES which contain insufficient information, are lacking details and/or processes, are inconsistent and unclear. This renders accurate assessment of holistic ecological impacts impossible to a reasonable degree of accuracy for decision making. As such it is considered that judgments made will range from being wholly accurate through to inaccurate with little confidence assigned to many judgments. Consequently judgements on impacts of the proposed development must be made outside relevant professional institute guidelines such as the Guidelines for Ecological Impact Assessment in the United Kingdom (Institute of Ecology and Environmental Management 2006) and Welsh National Policy.

9.2 Assessment of Natural Environment Issues in the Environmental Statement

9.2.1 The following outlines some, though not all of, the main issues regarding the submitted ES.

9.2.2 The Site Selection Process of the ES significantly appears to favour rail infrastructure within 1km significantly (Stage 2, Sieve C), essentially creating an anomaly and effectively excluding other equally acceptable transport modes later mentioned (water & road; Stage 5). Section 3.36 of the ES states that Sieve C is transport infrastructure whereas Section 3.24 clearly demonstrates that this infrastructure is considered as rail only within 1km of the centre of the site, much more specific than other Sieves at this stage and latter stages. Without further explanation this could skew results in favour of the chosen latter sites.

9.2.3 The Flue Gas Treatment System (FGTS), the single item which has the potential to minimise noxious emissions and knock on impacts on environmental/ecological health, (at Section 3.86 - 3.88 of the ES) appears to have dismissed the more efficient but costly Selective Catalytic Reduction (SCR) based on cost alone without consideration of the relative cost and other benefits of lower emissions upon the environmental/ecological health of the region. This is not considered to be an accurate cost-benefit analysis, nor has it considered the role of SCR in mitigating impacts.

9.2.4 There is a lack of clarity on the proportion or total volume of fuel (waste) to be transported to site via road/rail and residual waste leaving the plant via road/rail. Clearly at 50% via rail the extent to which rail was highlighted as a favoured option in the site selection criteria diminishes in comparison to 100% or 75% by rail.
9.2.5 The Zone of Influence (ZoI) of the development has not been defined, despite being identified as an issue at the Scoping stage of the ES (Table 9.3 of the ES “Methodology including Zone of Influence to be agreed with statutory bodies”). As such the scope of the holistic impact of the operation of the development is likely not to be considered fully and, potentially, adequately. The ZoI must be agreed and defined as recommended in Section 2.14 of the applicants’ stated methodology; ‘Guidelines for Ecological Impact Assessment in the United Kingdom’ (IEEM 2006). Issues such as those mentioned in the next paragraphs are a direct consequence of not identifying a ZoI for the proposed development.

9.2.6 Notwithstanding the fact this Council is a consultee rather than the ultimate decision maker for this proposed development, regard must be paid to the following.

9.2.7 The bottom ash and flue gas residue, are to be transported and disposed of at sites which are not yet finalised with non-specified methodologies. Some of the treatment sites/waste transfer stations are within and/or very close proximity to Special Areas of Conservation (SAC) and Site of Special Scientific Interest (SSSI) (Newport Docks & Wentloog, Cardiff: ES Sections 4.162, 4.170). Potential or actual impacts upon these designated sites has not been assessed despite the fact that impacts from airborne pollutants upon similarly protected sites, also some distance from the proposed development, have been adequately assessed. Section 4.154 of the ES also states that screening opinions suggest that EIA is not required for the two designated sites mentioned. This will increase the likelihood that impacts of this development will not be adequately assessed. Statutory bodies have a duty to consider biodiversity (NERC Act 2006 Section 40) and the impact upon European Protected Species & European sites (EU Council Directive 92/43/EEC of 21 May 1992 on the Conservation of Natural Habitats and of Wild Fauna and Flora; The Conservation of Habitats and Species Regulations 2010). Despite the applicants mention in Section 1.31 of the ES that a ‘variety of other consents for EfW will be obtained outside DCO’ no statutory body should devolve consideration of impact to another and must separately consider impacts. The Council cannot adequately consider these impacts due to a lack of information as stated above. This should be provided.

9.2.8 Whilst the impacts of the residual waste currently do not appear to impact on the Borough, legislation, regulations and sections of the applicants’ ES submission indicate the need to adequately consider these aspects. In particular EIA Regulations 2009, The Infrastructure Planning (Applications: Prescribed Forms and Procedure) Regulations 2009, Technical Advice Note 5: Nature Conservation and Planning (TAN5).
9.2.9 Decommissioning details are vague. In order to assess the full and final environmental impacts of the scheme, clearer and more specific details on decommissioning proposals are required. This vagueness is demonstrated clearly throughout the ES particularly in paragraph 9.183 (quoted below and underlined for emphasis):

“The EfW Facility would probably be demolished at the end of its operational life. The expectation would be that the balancing lagoons would be retained either as part of subsequent development of the site, or would be left in place to continue to provide amphibian habitat. The entrance road would be expected to remain in place to provide access to the land south of the railway. To the extent that there was a need to protect amphibians during the decommissioning of the Facility, then appropriate measures would need to be implemented, similar to those proposed for the construction period. To the extent that there may be effects on great crested newt at that time, a European Protected Species Licence under the Habitats Regulations would be required from WAG, or whatever legislative provisions are in place at the time.”

9.2.10 Table 9.3 of the ES (Summary of Key Issues Identified During Consultation) clearly states that the ‘scheme should seek to enhance biodiversity’. Apart from lapwings, there are no proposals to compensate, via planning obligations, for the direct and indirect permanent loss or change of semi-natural habitats, connectivity and impacts upon species arising as a consequence of the proposed development. Nor does this accord with Planning Policy Wales (PPW) Section 5.5.2 “When considering any development proposal (including on land allocated for development in a development plan) local planning authorities should consider environmental impact, so as to avoid, wherever possible, adverse effects on the environment. Where other material considerations outweigh the potential adverse environmental effects, authorities should seek to minimise those effects and should, where possible, retain and, where practicable, enhance features of conservation importance.”

9.2.11 Nor does this accord with TAN 5 Section 2.4 which advises adopting “a step wise approach to avoid harm to nature conservation, minimise unavoidable harm by mitigation measures, offset residual harm by compensation measures and look for new opportunities to enhance nature conservation”.

9.3 Local Impact

9.3.1 Notwithstanding the significant issues outlined above, the following assessments and judgements are based on the information provided to date combined with local knowledge of the area.
9.3.2 Only impacts on Merthyr Tydfil County Borough features have been considered in this section.

9.3.3 The Merthyr Tydfil Environment Strategy is one of four key strategic documents informing the overarching local Merthyr Tydfil Community Strategy. Key Theme 3: “Climate Change and Sustainable Resource Management” contains Action Focus points which encourage Community Recycling. The proposed development is considered to be a disincentive to recycling.

**Impact: Negative**

9.3.4 The Valleys Regional Park (VRP) convergence funding bid was approved in April 2009 by the Wales European Funding Office resulting in a £22m investment to develop, expand and enhance the unique tourism potential of the South Wales Valleys. The predominant focus is on highlighting, interpreting and focusing on the natural environment and supporting services for increasing tourism, as demonstrated by the associated WECAN (Working together for Economically prosperous Communities through Assets of Natural Heritage) project. The proposed development does not accord with the aims of the VRP, which are namely: to offer outstanding recreational opportunities which will change the image and perception of the Valleys forever; to improve the quality of life and health for local people and generate pride in their area; to create an environment that becomes an attractive destination for visitors and stimulates inward investment.

**Impact: Negative**

9.3.5 The Ffos-y-Fran Restoration Strategy the submission and implementation of which is required by conditions attached to the FLRS planning permission. It is also linked to two existing ecological management plans: Cwm Golau SINC Ecological Management Plan and the Central Ecological Area Management Plan. There will be losses and changes to priority habitats and ecological connectivity; namely loss of unimproved acid grassland and loss/change of marshy grassland/wet heath, with no compensation.

**Impact: Negative**

9.3.6 The Merthyr Tydfil Local Biodiversity Action Plan 2008-2013 is a document adopted by Council which aims to reduce biodiversity loss and has been agreed by the UK Government at the Convention for Biological Diversity in 1992. It feeds into the UK Biodiversity Action Plan. There are clear negative impacts on several targets with virtually no compensatory measures and/or mitigation. As such most targets will not be met as a consequence of the proposals. Of twenty targets two are deemed to be positive; namely Education & Awareness Raising and Data Collection and Management.
Impact: Negative

9.3.7 The proposals will result in the loss/change of purple moor grass and rush pastures (UK Biodiversity Action Plan, Natural Environment and Rural Communities Act Section 42 Species - Priority Species in Wales, Merthyr Tydfil LBAP). Impact: Negative

9.3.8 The proposals will result in the loss/change of upland heathland and upland flushes, fens and swamps (UK Biodiversity Action Plan & Merthyr Tydfil LBAP) with no compensatory measures and/or mitigation. Impact: Negative

9.3.9 The proposals will result in the loss and/or change and/or reduction of acid grassland, marshy grassland, mineral spoil, linear features, wildlife corridors, rivers & streams (Merthyr Tydfil LBAP) with no compensation and/or mitigation. Impact: Negative

9.3.10 Great Crested Newt-Triturus cristatus (European Protected Species, UK Biodiversity Action Plan, Merthyr Tydfil LBAP) ecological connectivity is considered to be reduced with no compensatory measures and/or mitigation with potential to affect the future range of the species in comparison to the current situation. Impact: Negative

9.3.11 Toad-Bufo bufo (UK Biodiversity Action Plan) ecological connectivity and increased mortality as a consequence of increased road traffic with no compensatory measures and/or mitigation. Impact: Negative

9.3.12 Skylark-Alauda cardensis (UK Biodiversity Action Plan, Natural Environment and Rural Communities Act Section 42 Species - Priority Species in Wales, RSPB UK Red, RSPB Welsh Amber) loss of breeding territories with no compensatory measures and/or mitigation. Impact: Negative

9.3.13 Wheatear-Oenanthe oenanthe and Meadow Pipit-Anthus pratensis (RSPB UK Amber) loss of breeding territories with no compensatory measures and/or mitigation. Impact: Negative

9.3.14 Waxcap fungi-Hygrocybe sp. (Local Interest) loss of species with no compensatory measures and/or mitigation. Impact: Negative
9.4 Other Issues

9.4.1 Communities First is a flagship National Assembly for Wales Programme focussed on community empowerment and engagement in decision making process at all levels in order to alleviate poverty depending on local need. Communities First Taf Bargoed (and its predecessors Communities First Bedlinog & Trelewis and Going for Green Bedlinog) historically focused on and invested significant sums of public money in green tourism, community empowerment and alternative energies (including a current windfarm proposal with significant long-term direct financial community benefits and plans for hydro-power at Parc Taff Bargoed) with a strong environmental, wildlife and tourism focus. The impact of the proposal on the community local plans, environment, local economy and consequential effect on these schemes has not been considered at any level.

Impact: Negative

9.5 Conclusion

9.5.1 The collective negative significant impacts on the above receptors and the consistent failure to identify/offer compensatory/mitigation measures to address those impacts represent a fundamental flaw in the submitted ES, thereby preventing Council’s assessment of impacts to any reasonable degree of accuracy.
10.0 LOCAL TRANSPORT AND ASSOCIATED ENGINEERING IMPACTS

10.1 Effect on the Highway Network

10.1.1 The effect of the proposed development is dependent on the type/volume of traffic generated and the ability/capacity of the highway network to accept the traffic.

10.1.2 It is noted that the submitted information variously refers to “approximately 75% by rail” and the “worst case scenario of 50% by road”.

10.1.3 Vehicle access to the proposed development site from the main trunk road (A465, A4060) network in Merthyr Tydfil is via the link from Dowlais roundabout to the ASDA roundabout, then east along the old Rhymney Common road, turning south onto the Gelligaer Common Road as far as the Cwmbargoed Road (also known as the Bogey Road) and turning west along the Bogey Road. The proposed site entrance lies some 950 metres west of the Bogey Road/Gelligaer Common Road junction.

10.1.4 A considerable length of this access route lies within the Caerphilly CBC administrative area. That Council has made separate submissions to the IPC concerning this aspect of the application.

10.1.5 There is also a direct route to the site entirely within the Merthyr Tydfil CBC area which runs eastwards along the Bogey Road from the A4060 trunk road roundabout at Mountain Hare to the proposed site access adjacent to the existing access between the FLRS and CDP signalised crossing point.

10.1.6 The acceptability of these local highway network routes as potential access to the proposed development site has been considered from the point of view of link and junction capacity and road safety. To aid in this consideration the applicants’ produced a Transport Assessment which looked in detail at the effects on the local network of traffic generated by the proposal under various traffic growth, anticipated usage and time horizon scenarios.

10.1.7 The conclusion of this analysis was that the access route as described above was capable of accommodating the traffic generated by the proposed development as well as the traffic that normally uses this route on a daily basis.

10.1.8 The analysis however also demonstrated that the section of Bogey Road between the A4060 trunk road and the proposed development site access was not suitable to accommodate the additional traffic generated by the development because of its width, gradient and lack of suitable passing places. It would pose a significant road safety risk if used by the type of
vehicles expected to deliver waste disposal material to the proposed development site and their return journeys.

10.1.9 The applicants therefore agreed to engineer the access to the proposed development site so that use of the Bogey Road by such vehicles is physically constrained though not entirely eliminated. To reinforce the need to preclude use of the Bogey Road, the applicants’ agreed to implement a form of contractual control on delivery vehicles serving the site by means of enforceable sanctions in the event of infractions to these contracts.

10.1.10 Another factor which will also be of benefit in controlling the use of Bogey Road arises as a result of a Planning Inspectorate decision in March 2011 to allow the removal of up to 50,000tpa of coal by road from FLRS, following a planning appeal Public Inquiry on 8 – 11th February this year.

10.1.11 In allowing some coal removal by road one of the planning conditions imposed by the Planning Inspectorate requires a 7.5 tonne weight restriction on the Bogey Road to prevent its use by coal removal vehicles. At the time of writing, the Council is processing an application by the FLRS operator to introduce such a weight restriction and may consider physical measures to aid enforcement.

10.1.12 As a result of these considerations the Council's Assistant Director (Technical Services & Regeneration) is of the opinion that, from a purely local highway network perspective, there is no objection to the development proposal, albeit that there remain concerns over environmental impacts and visual intrusion due to the increased commercial vehicular traffic.

10.1.13 Impact: It is considered that the effect of the proposals on the highway network is Marginally Negative.

10.2 Effect on the Rail Network

10.2.1 The applicants’ propose to utilise the existing railway link from the Cwmbargoed rail head to import waste material to run the plant and export reusable and waste material by-products. It is anticipated these rail movements will take place throughout the day and that there are likely to be some movements at unsocial hours which could affect residents of Bedlinog and Trelewis. This aspect is already subject of public concern.

10.2.2 Additionally this rail use will impact on the existing rail network between Cardiff and Rhymney as the Cwmbargoed mineral line branches off the wider network at Ystrad Mynach. The additional use on the Rhymney Valley line may have an impact on the wider regional aspirations of increased passenger services on this line and indeed on improved rail
services in the region in general, as there will be increased pressure on the already congested train paths using Queen Street Station in Cardiff. This is something that is of concern to the South East Wales Transport Alliance (SEWTA) of which Merthyr Tydfil CBC is a constituent partner. SEWTA have written separately to the IPC expressing such concerns.

10.2.3 **Impact:** It is considered that the effect of the proposals on the rail network is **Negative**.

10.3 **Effect on Rights of Way**

10.3.1 The Council is keen to promote the area as one for potential tourism and part of that strategy is to provide a good network of Rights of Way in the County Borough. A number of rights of way were extinguished as part of the FLRS and the proposal is to reintroduce these when it is completed. This aspiration exists as a component of the FLRS Restoration strategy. The proposed development could detract from the tourist potential and may influence the choice and ability to reintroduce a rational and attractive rights of way network in the future.

10.3.2 **Impact:** It is considered that the effect of the proposals on the existing and future restored Rights of Way is **Negative**.

10.4 **Effect on Land Drainage**

10.4.1 The applicants’ produced a Drainage Strategy that has been examined by the Council. This strategy and the detail included within it appears to be acceptable but does not include detailed calculations to support the allowable rate of discharge and scale of the attenuation proposals.

10.4.2 The IPC Panel are requested to ensure it is satisfied the drainage strategy is robust.

10.4.3 **Impact:** It is considered that the effect of the proposals on Land Drainage is **Neutral**.

10.5 **Effect on Ground Conditions**

10.5.1 The proposal contains little information relating to the adequacy of the prevailing ground conditions at the site location, nor does it contain detailed foundation calculations to support the building of an EfW facility. The IPC are requested to ensure it is satisfied with the suitability of the site from the point of view of ground conditions and adequacy of foundation design.

10.5.2 **Impact:** It is considered that the effect of the proposals on Ground conditions is **Neutral**.
11.0 HEALTH IMPACTS

11.1 The environmental health factors that influence public response to the proposed development have been communicated as part of the ES scoping exercise. Concerns were raised relating to noise and nuisances potentially arising from a large new facility in a relatively pollution free area. The construction of the plant and its heat pipe were considered to be potentially environmentally intrusive over a period of years for residents. Finally and perhaps most widely felt are the impacts of the transfer of waste to the plant by both road and rail and the impact of the energy transfer systems.

11.2 Concerns were raised about assessment of the background levels of pollution in advance of the operation. The limited baseline data collected seems to demonstrate that the neighbourhood is fairly quiet and of good air quality. However the depth and quantification of the background environment in noise terms has scarcely been investigated. For the reasons set out in the paragraphs above, the ES is limited and renders objective assessment inconclusive. From this limited information the impacts are assessed below.

11.3 As a consequence of comments made in the ES scoping exercise the developer has produced a number of very helpful calculations which suggest the impacts may be quite minimal on local residences. In particular the noise contour map (Fig 12.3) of the ES clarifies the noise outputs. Also the lighting contour map similarly addresses potential concerns about illumination levels.

11.4 Little information has been provided on noise arising from railway movements. Nor is there clarity around the measures proposed to control dust and other particulates arising during the construction phase.

11.5 Some of the environmental impacts which will potentially cause distress to residents are dismissed as minimal, such as night-time train and HGV movements. Similarly the impacts on residents during the installation of the CHP pipeline will be significant but are poorly addressed.

11.6 Noise from Plant

11.6.1 This appears to be limited in scale and is seemingly unlikely to give rise to a noise problem. Commissioning may lead to some complaints which can be managed provided they only occur during daytime hours when people are more tolerant of commercial noises and the developer alerts the public in advance that this is a temporary event. Impact: Neutral
11.7  **Odours from Waste Handling**

11.7.1 This is largely a matter of managing the deposit of waste inside the negatively pressurised compartments. If undertaken carefully this should not pose a problem. The applicants’ claim that the railway wagons’ seals will prevent the escape of odours. Clearly this is a matter of maintenance but the discharge of strong smells during transport and when waiting for final delivery at the site during warm weather remains a potential problem.  
**Impact: Neutral**

11.8  **Emissions from the Plant to atmosphere**

11.8.1 The discharges from flues, holding chambers and fly ash handling will all be addressed by way of licence conditions overseen by the Environment Agency. There are always likely to be short term elevated pollution discharges during the start up and slow down of the plant. Provided these instances can be minimised a consistently low level of pollutants could be delivered. Monitoring by the business and external auditing by the Environment Agency (Wales) (EAW) is crucial to satisfying local concerns that the various chemical compounds discharged do not represent a health risk or breach any air quality standards. The discharge of fine particulate should be monitored and best practicable technology employed to eliminate even the very small particles.  
**Impact: Neutral** (based upon information submitted with original application).

11.9  **Nuisances and Vectors of Disease**

11.9.1 As described previously the proposed arrangements for external lighting are well developed towards having a minimal impact outside the perimeter of the facility. The arrangements for managing flies and seagulls are not described and fairly recent experience in the neighbourhood with the Trecatti Waste facility suggests these species need a specific programme. Bird nuisance is very real and the facility will attract attention as there remain significant colonies nearby. Flying insects are a potential issue with waste plants. Insects are a real nuisance in residents' homes as well as being a serious health hazard in connection with food preparation, although the nearest dwellings are some distance away. However, as a precautionary measure in view of the fact that thus far no clarification or detailed proposals for those issues have been described by the Applicants despite the matters being raised in the ES scoping exercise, a programme to eliminate them or trap them is an essential Requirement.  
**Impact: Neutral (subject to implementation of scheme)**
11.10 Movement of Waste to and from the proposed development

11.10.1 Trains

This remains the principal source of concern in environmental impact terms as residents living near to major haul routes and the freight railway line will notice more activity. Residents in Bedlinog and Treharris will have noticed the increased rail traffic and in the recent past the movements of coal at night from FLRS have caused noise complaints. The timetable provided by the train company suggests a significant proportion of the rail movements to be at night (12.56). The table 12.14 (incorrectly showing construction noise) shows a significant increase in level of over 13 dB, and that is based upon measurements of existing noise levels in the early night time rather than the quietest times in the early hours of the morning. The Applicants suggest that the trains would be similar to existing rail freight traffic. This assertion is not accepted.

The Applicants' indicate a noise average of over 57 dB(A) but the levels experienced may be up to 90 dB (A) at the façade of the buildings during some of the train events. Clearly this is to be a major contributor to the night time noise climate in these quiet villages and every effort needs to be made at this stage to protect residential amenity. The Applicants must find a compromise to avoid train movements at night.

Impact: Negative (based upon the limited information provided).

11.10.2 HGV

The Applicants wish to allow for the delivery of road hauled waste late into the night to allow flexibility, which could be at the expense of residents living along the haul routes. There needs to be some restriction on the Applicants either in terms of times or by way of proportion of vehicle movements so as to afford some degree of protection for homes alongside the HGV routes.

Impact: Neutral

11.11 Noise and Vibration from Construction

11.11.1 The baseline noise monitoring data was limited for the reasons set out below.

11.11.2 The nearest settlement in the Borough potentially affected by noise and vibration is Incline Side, some 1675 metres from the Application Site, (not
2km as stated elsewhere). No background noise data has been collected for this cluster of homes but calculations have been made for the likely noise climate they will experience during the construction phase. There are suggestions made in Table 12.6 of an ambient level for Incline Side of 44 dB(A) but no evidence is there to show where that calculation arrived from.

11.11.3 Para 12.22 indicates that baseline noise monitoring was carried out in agreement with the Council’s Environmental Health officers. This is not the case. Officers would have advised collecting data from Incline Side.

11.11.4 Furthermore background noise levels were not collected 10.00 p.m. – 11.00 p.m. at any location which is when construction noise would be most invasive.

11.11.5 Construction noise has the potential to affect these houses for a period of 44 months between 7.00 a.m. and 11.00 p.m. (12.37). Noise assessments have been made for 12 hours but clearly there is every likelihood that on some days noise will be apparent for 16 hours. Table 12.5 indicates energy equivalent levels of 38 dB(A) when in fact the individual noises will be experienced much louder than this as activities progress. The noise levels during the noisy construction phases will be very intrusive for this small community and must be limited to a much smaller time scale than 16 hours a day. The more normal period of 12 hours 7 a.m. – 7 p.m. is a much more appropriate period.

11.11.6 Noise impacts from the excavations necessary to install the CHP pipeline indicate levels of 81 dB(A) (Para 12.66) at some dwellings, whether this is for 16 hours per day is unclear but it will be intrusive whenever it takes place. Some controls need to be put in place to allow protection for residents when working is intense and close to homes, mitigation methods are mentioned but not described.

11.11.7 Noise from construction vehicles attending the site has been considered insignificant in Table 12.8. One of the fundamental issues for residents is the need to prohibit all heavy vehicles from using the Bogey Road to access the construction site. This will minimise noise and exhaust pollutants.

11.11.8 Vibration from blasting and piling operations are mentioned as being likely but the effects on others are dismissed as being irrelevant if below 6
mm/sec peak particle velocity (ppv). In practice blasting is unpleasant to householders at any level above 2 mm/sec ppv. Para. 12.87 of the report submitted dismisses the issue on the basis that “previous experience indicates that vibration levels due to general construction activities including piling are unlikely to exceed 5mm/s at the foundations of any of the nearest properties”. This suggests that the comment refers not only to piling on the Application Site which, as discussed would not be expected to cause any problems at sensitive receptors and could therefore comply with the suggested target of 2mm/sec ppv but also to the laying of the heat pipe. It is considerably less likely that the 2mm/sec ppv target could be met for the piling operations normally associated with pipe laying operations in close proximity to housing.

**Impact: Neutral** (subject to suitably worded Requirements designed to restrict construction hours and construction vehicle routes).

**11.12 Dust from Construction**

11.12.1 The construction activities which involve ground works are those most likely to lead to dust and fine particles being lifted into the air, giving rise to dust deposits on surrounding properties. Para 7.186 of the ES suggests that best practice may be employed. Local experience is that in dry weather the key factor is wind direction rather than any suppression mechanisms. Therefore the construction operation should provide a secure water supply for suppression purposes but that as soon as air borne dust becomes visible within the site, wind direction should be checked and operations suspended if dwellings are threatened.

11.12.2 The construction operation will entail large numbers of heavy vehicles visiting the site and their access routes will need to be managed if ambient air quality is not to be compromised by vehicle fumes.

**Impact: Neutral**

**11.13 Long Term Monitoring**

11.13.1 There has been no discussion with the Environmental Officers of the Council as to which criteria should be employed to select meaningful monitoring locations for either noise or air pollution emanating from the site. Figure 12.1 of the ES indicates a series of potential monitoring sites although there is no explanation as to why these have been chosen as being representative. In order to properly assess the impact of such a complex installation and to reassure residents that their interests are being considered a number of monitoring locations will be required including the nearest small settlement at Incline Side.
11.13.2 Agreement must be sought to suggest what factors need to be assessed in order to select a representative set of sampling/monitoring sites.

Impact: Neutral

11.14 Conclusions

11.14.1 This proposed development is a major step for waste management in South Wales and its impact must be mitigated for in an already health challenged community. The fear of both environmental and health damage is very real amongst residents and every opportunity to meet those fears must be taken. Much has already been done to minimise the impacts and to reassure those who are concerned but there remain doubts that the applicants will be subject to any form of local oversight. In order to dispel those doubts there are a number of serious issues that need to be conditioned at this stage.

i) Noise from trains at night must be addressed.

ii) Late night traffic movement must be managed.

iii) Monitoring locations must be representative.

iv) Construction noise at night must be reduced.

v) Construction impacts such as dust arisings, blasting and piling operations must be managed to avoid unnecessary impacts.

vi) Flying insects and seagulls must be the subject of a control programme.
12.0 WASTE STRATEGY IMPACTS

12.1 The Council’s Waste Management Department advises that the ambition of the national waste management plan for Wales is to recycle at least 70% of waste by 2025 and also plan what to do with waste that cannot be recycled or captured through the collection schemes.

12.2 Landfill is no longer an option. The amount of landfill space left in Wales is running out fast and landfill taxes mean that it becomes an increasingly expensive and unaffordable option.

12.3 The priority is to reduce the amount of waste produced. Where waste is created alternatives to landfill must be found. These alternatives include high efficiency Energy from Waste.

12.4 Towards Zero Waste is the overarching waste strategy document for Wales and forms part of a suite of documents that together comprise the national waste management plan for Wales. Detailed delivery actions will be provided in “sector plans”. Regional Waste Plans have been completed with contributions to by this Council.

12.5 The Waste Framework Directive and Waste Hierarchy should be applied as a priority order in waste prevention and management, legislation and policy as follows;

WASTE HIERARCHY
12.6 At present, too much waste management is at the bottom end of the waste hierarchy. Much of the waste is still sent to landfill with an increasing amount being recycled and recovered.

<table>
<thead>
<tr>
<th>Year</th>
<th>Recycled Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wales 2008/09</td>
<td>35.9% recycled</td>
</tr>
<tr>
<td>Wales 2009/10</td>
<td>39.3% recycled</td>
</tr>
<tr>
<td>By 2024/25</td>
<td>70% recycled</td>
</tr>
</tbody>
</table>

12.7 It will take time and require a change in waste management behaviour to move to the top of the hierarchy.

12.8 Evidence gathered by the Welsh Assembly Government (WAG) indicates that the treatment methods most likely to deliver best the sustainable development actions identified in One Wales, One Planet and in the Towards Zero Waste Strategy are as follows:-

a) Food Waste – separate collection and treatment in Anaerobic Digestion (AD) plants to produce renewable energy and a valuable natural fertiliser.

b) Residual Waste – use as a fuel of the residual municipal waste left after recycling in energy recovery plants with a high energy efficiency, preferably with a thermal efficiency of 60% or greater but at least meeting the recovery threshold efficiency formula laid down in the revised Waste Framework Directive which places energy recovery above incineration for municipal waste.

12.9 Both AD and EfW plants are tightly regulated by Environmental Permits issued by the Environment Agency.

12.10 Emission controls for EfW plants have to meet EU Waste Incineration Directive limits that are currently far tighter than controls over other comparable industrial and power plants that do not use waste as a fuel.

12.11 Health Impact Assessments (HIAs) carried out for the Regional Waste Plans and Towards Zero Waste Strategy conclude that modern well regulated waste treatment plants do not have a significant impact on health and therefore should not be a cause for concern. However this issue is best assessed by the relevant regulatory bodies.

12.12 WAG therefore wishes to see EfW with a high energy efficiency as the primary way to manage the residual municipal waste that should not exceed 30% of the total municipal waste collected in any year by Welsh local authorities, by 2024/5.
12.13 WAG is “technology neutral” when it comes to the choice of EfW technology used and is satisfied that the treatment of residual waste by high efficiency EfW facilities (where practical producing electricity and/or heat) is the best option for Wales in terms of its sustainable development obligations in reducing the impact of waste management activities on climate change.

12.14 Local authority procurement hubs are advised to be “size neutral”.

12.15 Wales requires residual treatment facilities to be in place to meet policy targets and also to deal with the Environment Agency’s projection that landfill availability will run out prior to 2020 in a number of regions.

12.16 The current situation regarding the disposal of residual municipal waste from MTCBC is that the waste disposal contract with Biffa Waste Services ends at the end of March 2013.

12.17 In preparation, the Council is in partnership with Rhondda Cynon Taf CBC (RCT) in a procurement hub branded Tomorrow’s Valley/ Cwm Yfory, to procure a sustainable, residual waste treatment solution. It is one of several procurement hubs in Wales. Other local hubs are Project Gwyrrdd (Cardiff, Newport, Caerphilly, Monmouth and the Vale of Glamorgan) and the Heads of the Valley (Blaenau Gwent/Torfaen).

12.18 The Merthyr/RCT hub is dealing with solutions for food waste treatment and residual waste treatment and is overseen by Local Partnerships, advisers to the Welsh Assembly Government through the Waste Procurement Programme Office (a specially constructed division of WAG tasked with delivering the waste treatment programme). At key stages of the procurement, health checks are carried out along with scrutiny of outline and final business cases prepared by the hub at various points of the process.

12.19 **Overall Impact: Positive** (In the context of the waste hierarchy and the strategic documents for Wales)
C - POLICY

13.0 RELEVANT DEVELOPMENT PLAN POLICIES AND APPRAISAL OF THEIR RELATIONSHIP AND RELEVANCE TO THE PROPOSALS

13.1 This section identifies the Local Development Plan (LDP) policies relevant to the proposed development. A general overview of the LDP framework is initially provided which includes a summary of the relevant development plan policies. An appraisal of the proposed development’s compliance with the identified policies is then undertaken, before finally, the opportunity is taken to identify a number of relevant local and other documents that have contributed to the findings of this Local Impact Report.

13.2 It will be appreciated that, whilst the overall acceptability or otherwise of the proposed development is a matter of judgement for the IPC, any comments contained within this section of the LIR derive from the officers’ assessment as to how compliant the proposed development is in relation to stated LDP policies. Some of the policies require planning judgments to be made as to acceptability.

13.3 Development Plan Framework

13.3.1 The Council’s existing development plan framework consists of the Merthyr Tydfil Local Development Plan 2006-2021 which was adopted on the 25th May 2011. The LDP sets out the Council’s priorities for the development and use of land in the County Borough and its policies to implement them over the fifteen year plan period between 2006 and 2021. All policies and proposals contained within the LDP are designed to interact. It is therefore important that the Plan is read as a whole.

13.3.2 The following LDP policies are considered relevant to the proposed development. They relate to Borough Wide (BW), Area Specific (AS) and Topic Based (TB) policies.

1. Policy BW4 – Settlement Boundaries/Locational Constraints
2. Policy BW5 – Natural Heritage
3. Policy BW6 – Townscape and Built Heritage
4. Policy BW7 – Sustainable Design and Place Making
5. Policy BW8 – Development and the Water Environment
6. Policy BW10 – Minerals Safeguarding
7. Policy BW12 – Development Proposals and Transport
8. Policy BW17 – Securing Community Infrastructure Benefits
9. Policy BW18 – Contaminated Land
10. Policy AS4 – Historic Landscape
11. Policy AS6 – Local Nature Conservation Designations
13. Policy TB7 – Renewable Energy
14. Policy TB8 – Minerals Proposals
15. Policy TB10 – Waste Management Facilities
16. Policy TB11 – Access, Parking and Accessibility of Local Facilities
17. Policy TB12 – Freight Traffic

13.4 **Compliance of the Proposed Development with Local Development Plan Policy**

13.4.1 **Development Plan Designations and Land Use**

13.4.2 The application site is located outside settlement limits and is covered by four designations relating to policies BW10, AS4, AS6 and TB8. Policies BW10 and TB8 are minerals related and reflect the fact that the site is located within the FLRS where mineral resources are known to exist. As no mineral extraction is planned within the proposed development site as part of the reclamation scheme, the known coal and sandstone resources continue to be safeguarded under Policy BW10. The potential for prior extraction should be considered in accordance with paragraph 13 of Minerals Planning Policy Wales (2000) and paragraph 42 of Minerals Technical Advice Note 2: Coal (2009) in order to prevent sterilisation. Where mineral extraction is considered appropriate prior to built development, Policy TB8 will apply. It should be noted that the proposed development also has implications for the Restoration Strategy of the FLRS which requires detailed consideration as part of the examination process.

13.4.3 The remaining designations are environmental in nature and relate to the Merthyr Tydfil Landscape of Outstanding Historic Interest designation (Policy AS4), which covers the entire site, and a Site of Importance for Nature Conservation (SINC) designation (Policy AS6), which covers a limited area in the south east corner of the site. For the proposed development to comply with Policies AS4 and AS6 it is essential that the character and integrity of the historic landscape and the conservation value of the SINC are maintained or enhanced. The environmental impacts of the proposed development and its compliance with these policies are discussed further below.
13.4.4 Whilst the proposed development site falls outside settlement boundaries, Policy BW4 states that, amongst other things, waste management facilities that cannot be reasonably located elsewhere and renewable energy technologies can be acceptable forms of development within the countryside. In terms of other suitable locations for waste management facilities, Policy AS7 identifies existing and proposed B2 employment sites as “areas of search” for new in-building waste facilities. There are currently approximately 24 Ha of land available within B2 employment sites providing an adequate supply of land to meet local waste needs and contribute to regional waste requirements. However, Policy AS7 also indicates that alternative locations can be considered provided the applicant adequately demonstrates that the identified B2 employment sites are unsuitable for the development proposed. The proposed development is dependent on rail for the delivery of at least 50% of the waste to be processed and as such requires access to rail infrastructure. It is accepted that only the Cwmbargoed railhead facility currently has the potential to transport waste by rail. As there are no other sites, including the identified B2 employment sites, within settlement boundaries that could provide rail access, it is considered that the proposed development broadly complies with Policies BW4 and AS7.

13.4.5 It should however be noted that for the proposed development to fully accord with Policy BW4 it must satisfy other relevant LDP policies. Consideration of the latter is provided below.

13.4.6 Type of Waste Management Facility

13.4.7 The proposed development would be fuelled by residual (post-recycled) municipal, commercial and industrial waste and would incorporate combined-heat and power (CHP) technology. The proposed development would divert residual waste from landfill. The Council’s Waste Management Department has confirmed that the proposal is a suitable waste management option for treating residual waste in the context of the Waste Hierarchy and National and Regional Strategic Waste documents. As such, the proposal is considered to be appropriate in waste management terms.

13.4.8 The LDP contains a topic based policy, namely Policy TB10, which directly relates to waste management facilities. This policy considers, amongst other things, the local and regional need for a proposed waste management facility. Merthyr Tydfil CBC is in partnership with RCT CBC in a procurement hub seeking solutions for food waste and residual waste treatment. The applicant is not a bidder within the current procurement process and it is not therefore anticipated that the proposal will process local residual municipal waste (See section B12). However, Prosiect
Gwyrdd, another procurement hub comprising of a number of authorities within the region, has shortlisted Covanta as part of their procurement process. There is also the potential for the proposed development to process commercial and industrial waste from the South East Wales Region. As such, it is possible for the proposed development to comply with the first criterion of Policy TB10, which states that there should be a demonstrable need for the proposal in the context of the County Borough’s waste management requirements and/or regional need. Whether the proposed development complies fully with this policy is considered further below.

13.4.9 The ES indicates that approximately 50% of the energy produced will be classified as renewable energy and the incorporation of CHP technology will substantially improve the efficiency of the proposed development. It is proposed to transfer the heat by pipeline to future users on development sites within the County Borough. Policy TB7 supports, subject to satisfying other criteria, development proposals that contribute to meeting national and local renewable energy targets and it is therefore considered to apply in the case of this proposal. Whether the proposed development fully complies with this policy is considered further below.

13.4.10 Environmental Impacts

13.4.11 Turning more specifically to the environmental impacts of the proposed development, specialist officers within the Council have assessed the submitted ES and identified the extent of proposal’s impact on each environmental matter. The findings of these assessments have been used to identify which policies support or conflict with the proposed development.

13.4.12 With regard to the impact on cultural heritage, the Town Planning Division’s Design, Heritage and Conservation Officer has concluded that the proposed development will have an unacceptable impact on the cultural heritage assets within the County Borough (see Section 8). This impact arises from the fact that the proposal will result in the removal of some heritage assets, detrimentally affect the settings of designated and non-designated key industrial remains and unacceptably impact upon the historic landscapes of Merthyr Tydfil and Gelligaer.

13.4.13 The LDP policies which therefore conflict with proposed development, by virtue of the unacceptable impact on the County Borough’s cultural heritage, are as follows: Policy BW5; Policy BW6; Policy BW7; Policy AS4; and Policy TB7.

13.4.14 In respect of biodiversity, the Town Planning Division’s Countryside Officer has identified a number of unacceptable impacts on protected
species, priority species and habitats, and ecological connectivity (see Section 9.0). As stated above, an area to the south east corner of the site is designated as a SINC (known as Cwm Golau) and as such is covered by Policy AS6. The proposed development will result in a partial loss of this SINC with no compensatory measures proposed to maintain its conservation value. Whilst it is recognised that non-statutory designations should not unduly restrict development, Policy AS6 is explicit in the need to provide appropriate mitigation and/or compensation measures.

13.4.15 The proposal is therefore in conflict with Policy AS6. More broadly, the overall unacceptable impact on the County Borough’s biodiversity interests also renders the proposal in conflict with Policies BW5 and TB7.

13.4.16 In relation to landscape and visual impacts, the Town Planning Division’s Landscape Architect has identified a significant number of viewpoints from the ES which illustrate how the proposed development will have an unacceptable impact on the landscape character (see Section 6.0). Many of these viewpoints fall within the top quarter of most deprived wards in Wales and the impact on a number of local strategies that seek to promote the landscape for tourism and recreation is also considered to be detrimental.

13.4.17 The LDP policies which therefore conflict with the proposed development, by virtue of the unacceptable impact on the County Borough’s landscape are as follows: Policy BW5; Policy BW7; and Policy TB7.

13.4.18 With regard to health and amenity impacts, the Council’s Principal Environmental Health Officer has confirmed that the impacts of the proposed development can potentially be minimised to an acceptable level provided a number of matters are adequately controlled via condition (see Section 11.0). Significant matters which have been identified as requiring further consideration are night time noise resulting from train and lorry movements, and construction works; construction dust arisings and piling operations; pest control; and long term monitoring arrangements. If suitable solutions cannot be found to address these matters, the proposal would conflict with the health and amenity related criteria within a number of LDP policies, including Policy BW7, Policy TB7 and Policy TB10.

13.4.19 In respect of land contamination, the Council’s Principal Environmental Health Officer has confirmed that the level of contamination on the site does not render it unsuitable for the proposed development subject to appropriate mitigation measures being undertaken. The proposal is therefore considered to be in accordance with Policy BW18.

13.4.20 In relation to land drainage impacts, the Council’s Assistant Director (Technical Services & Regeneration) has considered the submitted
surface water drainage strategy and is satisfied that the approach is broadly acceptable (see Section 10.0).

13.4.21 The overall impact of the proposed development on land drainage is not considered to be detrimental, and as such, the proposal is considered to be in accordance with Policy BW8 in respect of this matter.

13.4.22 With regard to transportation and traffic impacts, the Council’s Assistant Director (Technical Services & Regeneration) has considered the submitted Transport Assessment and concurs with the findings that the proposed development will not have an unacceptable impact on the local highway network in terms of link and junction capacity and road safety (see Section 10.0). The proposal is therefore considered to be in accordance with Policies BW12 and TB11 in respect of these matters.

13.4.23 Concerns have however been raised by the Council’s Assistant Director (Technical Services & Regeneration) over the impact of the transportation of waste and bottom ash via rail on the amenity of residents and wider regional aspirations for increased passenger services on the Rhymney and Bedlinog lines. In respect of the former, night time train movements are likely to result in unacceptable noise and disturbance to residents located in close proximity to the rail line and as such further consideration should be given to the timetabling of train movements as part of the examination process. The potential for the proposed development to constrain the increased use of the Cwmbargoed and Rhymney line for passenger services also requires further exploration.

13.4.24 Failure to adequately address these matters would result in the use of the rail line for transporting waste and bottom ash having an unacceptable impact, conflicting with Policy BW7, Policy TB7 and Policy TB10.

13.4.25 It should be noted that whilst Policy TB12 is generally supportive of increasing the use of the Cwmbargoed railhead facility, policy support is subject to the proposal satisfying detailed planning matters. As the proposed development conflicts with a number of other LDP policies, it is considered that the proposal conflicts with Policy TB12.

13.4.26 Summary

13.4.27 The LDP identifies existing and proposed B2 employment sites as the most appropriate locations for in-building waste management facilities. There is, however, flexibility within the LDP framework that enables an application for a waste management facility on unallocated land which seeks to utilise the Cwmbargoed railhead facility to be considered on its merits. The latter has been undertaken in relation to the proposed facility and a number of unacceptable environmental impacts have been identified
in relation to the County Borough’s cultural heritage, biodiversity and landscape assets. There is also potential for the proposed development to have an unacceptable impact on residential amenity unless suitable mitigation measures can be implemented.

13.4.28 Conclusions

13.4.29 In conclusion, the proposed development will have an unacceptable impact on the cultural heritage, biodiversity and landscape assets of the County Borough. As such, the proposal conflicts with LDP Policies BW4, BW5, BW6, BW7, AS4, AS6, TB7 and TB12. The proposed development will also conflict with Policy TB10 if the identified impacts on residential amenity cannot be ameliorated to an acceptable level through appropriate mitigation measures. It is therefore considered that the proposed development is not in compliance with the adopted Merthyr Tydfil Local Development Plan 2006 – 2021 (May 2011).

13.4.30 The Council are concerned that the sources of the waste to power the proposed EfW plant and the associated development (i.e. waste transfer stations and rail infrastructure) remain unclear and consider that further information should be provided and these issues formalised for example conditions on waste sources/types.

13.4.31 In view of the proximity principle emphasised by national, regional and local planning policy, and the knowledge that other (smaller) EfW facilities have been permitted in South Wales, the Council have reservations as to whether there is enough waste locally to sustain the proposed EfW facility which has an optimum capacity of 750,000tpa. This therefore raises the question as to the effectiveness/desirability of an EfW facility of this capacity in this location and further questions the sustainability of the process if it requires waste to be brought from further afield.

13.4.32 In conclusion, whilst the proposed development could deliver certain positive impacts, as stated, there remain many more negative impacts. The negative impacts should be accorded significant weight, because each is significant in its own right and because many will be experienced cumulatively by the local environment and populace.

13.5 Relevant local and other documents

13.5.1 The following documents have been used by the Council’s specialist officers to assist their assessment of the ES:

- The Register of Landscapes, Parks and Gardens of Special Historic Interest in Wales (1998, as revised);
• The Merthyr Tydfil Historic Landscape Conservation Management Plan (Draft, 2010);
• The Merthyr Tydfil Historic Landscape Characterisation Report (2003);
• The Gelligaer Common Historic Landscape Characterisation Report (1999);
• Local Biodiversity Action Plan 2008 – 2013 (2008);
• Loops & Links Guide Book (Groundwork Merthyr &Rhondda Cynon Taff, 2003); and
• Taff Bargoed Regeneration Strategy (2006).
D - PROVISIONS, REQUIREMENTS, OBLIGATIONS

14.0 CONSIDERATION OF THE IMPACT OF THE PROVISIONS AND REQUIREMENTS WITHIN THE DRAFT ORDER IN RESPECT OF ALL THE ABOVE

14.1 The DCO contains provisions and a set of requirements, which for all intent and purposes reflect the role of conditions often found attached to a planning consent. The topics covered are as follows:

14.2 Time limits, type of waste to be treated, detailed design approval, provision of landscaping, implementation and maintenance of landscaping, highway access, fencing and other means of enclosure, surface water drainage, construction environmental management plan, archaeology, ecological management plan, code of construction practice, lighting strategy, traffic management, construction hours of working, operational hours of working, control of noise and vibration during construction, control of noise and vibration during operation, bottom ash and flue treatment, restoration, amendments to approved details.

14.3 As a general principle where further approvals are required from the Commission, all details and schemes that form the basis of submissions to the Commission will have been the subject of consultation with the Local Planning Authority.

14.4 For the purpose of the DCO application currently under consideration, 15 provisions are set out and 28 requirements have been suggested by the applicant.

14.5 The Council's concerns in relation to these are set out below:-

14.6 PROVISIONS

3. Development consent etc. granted by the Order

If the DCO is granted by the IPC FLRS cannot be delivered as approved. Therefore, granting the DCO for the EfW brings into question the deliverability of the FLRS Restoration Strategy. Whilst the ES states/acknowledges that an amendment will be required, no such application has been submitted to date.

14.7 REQUIREMENTS

3. Time limits
The Council consider the wording of this condition to be ambiguous in relation to the timescales involved and would seek clarification.
5. Type of waste to be treated
The Council are concerned that the wording of this condition could potentially allow 100% of waste to be delivered by road (if the total waste received is 375,000 tonnes). As such the Council consider that the condition should be worded as follows:

“No more than 25% of the waste received in any calendar year shall be delivered by road”.

18. (3) Traffic Management
The Council are concerned over how they would enforce implementation of the Travel plan based on the current wording of the condition.

19. Construction Hours of Working
The Council consider that construction hours of 7am to 7pm are more appropriate. Section 11.11 of this report explains why.

20. (3) (a) and (b) Operational Hours of working
The Council consider the terms “abnormal” and “emergency” in this context should be defined.

26. Bottom Ash and Flue Gas Treatment
The requirement does not currently specify the means of transportation of residues. The Proposer has previously advised that all residues including bottom ash and flue gas treatment would be transported from the application site in sealed containers by rail to authorised sites. The condition should therefore be amended to specify that the means of transportation would be by rail.

27. Restoration
The Council consider that details of the restoration scheme should be provided prior to implementation of the scheme.

The Council also consider that the following requirements should be added if the DCO is granted:-

Wheel cleansing
Prior to the commencement of development, facilities for wheel cleansing shall after consultation with the LPA, be provided on site in accordance with details submitted to and approved in writing by the Commissioner. Wheel cleaning shall be carried out in accordance with the approved details.
**Health Impacts**

Noise from trains at night must be addressed.
Late night traffic movement must be managed.
Monitoring locations must be representative.
Construction dust arisings and piling operations must be managed to avoid unnecessary impacts.
Flying insects and seagulls must be controlled by an agreed programme.
15.0 DEVELOPMENT CONSENT OBLIGATIONS AND THEIR IMPACT ON THE LOCAL AUTHORITY’S AREA

15.1 The DCO includes Draft Heads of Terms for an Agreement under Section 106 of the Town & Country Planning Act 1990 and Sections 38 and 278 of the highways Act 1980.

15.2 The Agreement would be between Covanta Brig Y Cwm (the Developer), Miller Argent (South Wales) Ltd, Miller Argent (Nominee No1) Limited and Network Rail (the Landowners) and Merthyr Tydfil County Borough Council and Caerphilly County Borough Council (the Councils).

15.3 It is proposed by Covanta that the Agreement shall include the following obligations:

(i) Prior to commercial operation of the Project and annually for four years thereafter to make a payment of [£x] towards the Heads of the Valleys lapwing strategy;

(ii) Prior to the commencement of development to submit to the Councils for approval a plan for the routing of heavy goods vehicles to avoid use of the Bogey Road to the west of the site and to implement the routing plan as approved;

(iii) Prior to the commencement of development to submit to the Councils for approval a travel plan to provide for sustainable methods of transporting construction workers, employees and visitors to and from the facility and to implement the travel plan as approved;

(iv) Prior to the commencement of development to submit to the Councils for approval a plan detailing the steps that will be taken to promote local and sustainable resourcing of labour and materials in the construction of the facility and the promotion of local employment opportunities, including vocational training, during operation and to implement the plan as approved;

(v) To provide and maintain a visitor centre/education facility for as long as the Project remains operational;

(vi) To continue to facilitate and support the established Community Liaison Panel based upon the existing agreed Terms of Reference and protocols;

(vii) The payment of £150,000 on the date that the Project first accepts waste and £50,000 annually thereafter as a community trust fund to
be managed by an independent charitable trust fund manager in accordance with a set of agreed objectives; and

(viii) To display emissions data from the Project on its website and in the visitor/education in a form that the general public can be expected to understand, including indices relating to levels permitted by the Environmental Permit. Such information to also be supplied to the Environment Agency as monitoring authority for as long as the Project remains operational.

15.4 Discussions relating to the Draft Heads of Terms are continuing between the Developer and the Councils. In addition to agreeing the detail of those Heads of Terms above, this Council consider the following two issues relating to Historic Landscape Interpretation and deliverability of the CHP pipeline should form part of the S106 Agreement:-

- **Historic landscape interpretation and management plan**

  BEFORE the commencement of development, a phased post operational historic landscape interpretation and management plan that takes account of the sequential changes to the upland landscape leading up to and including a post 2025 scenario, shall after consultation with the LPA, be submitted to and approved in writing by the Commissioner. The management plan should encourage and make provision for access to enjoyment of the wider landscape in an area extending from Merthyr Common in the north to Gelligaer Common in the south, and should also contain provisions for the maintenance and restoration of archaeological features which form the surrounding landscape. The management plan must contain a schedule of proposals to be implemented by the developer before the date that the project first accepts waste and a schedule of proposals to be implemented within a programme of planned works and recommendations’.

- **Delivery of the CHP pipeline**

  From its inception, the proposed EfW facility at Brig y Cwm has been promoted as providing the benefit of making surplus heat available to local businesses and public buildings at a reduced cost via a CHP pipeline to be installed by the developer.

  The Design Commission for Wales expressed their opinion as to the importance of the delivery of the CHP pipeline in their Design Review Report in June 2010 as follows:-
“We welcome the potential reuse of waste heat resulting in greater efficiencies. We trust that arrangements to deliver this will be in place before a planning application is made, as it is a fundamental aspect of the scheme’s overall sustainability”.

The Council are of the view that it is an essential prerequisite of consideration of the proposed development and that the Applicants should commit to delivery of the CHP pipeline by means of a S106 Agreement. This has been expressed both verbally and in writing to the Applicant.

The DCO states that an application for the CHP pipeline will be submitted to the Council. However at the time of writing no application has been received, much to the disappointment of this Council.
E - ASSESSMENT

16.0 ASSESSMENT OF THE MERITS OF THE PROPOSED DEVELOPMENT

The IPC Advice Note: Local Impact Reports (March 2010) states that the LIR: “...should consist of a statement of positive, neutral and negative local impacts, but it does not need to contain a balancing exercise between positives and negatives...” It further states that: “It would assist the Commission if the local authority is able to give its view on the relative importance of different social environmental or economic issues and the impact of the scheme on them”.

This section of the LIR is set out in accordance with that guidance and should be read in association with Sections B 5 – 12.0. of the LIR.

A recurring theme contained within this LIR is the interdependence of the DCO application with the proposed CHP pipeline and its ability to transport waste heat.

The implementation of the CHP pipeline is crucial not only to the sustainability credentials of the DCO application but to delivery of the community and other benefits. This was supported unequivocally by the Design Commission (Appendix 1).

The Advice Note also states: “...It will also be very helpful to have the local authority’s appraisal of the proposed development’s compliance with local policy and guidance”. The latter part of this section of the report also addresses the compliance or otherwise of the proposed development with local planning policy.

16.1 IMPACT OF THE PROPOSED DEVELOPMENT ON SOCIO-ECONOMIC, ENVIRONMENTAL AND OTHER ISSUES

These issues are assessed, as advised by the IPC, in relation to their positive, neutral or negative impacts. Some of these assessments are “qualified” in as much as there may have been certain assumptions made or that the imposition of Requirements or Obligations may address certain aspects or that the submission of subsequent schemes may reduce the potential impact. These qualifications are italicised and indicated in brackets where relevant.

Positive

Socio-Economic

- Inward Investment (qualified)
- Household income (qualified)
- Employment opportunities
Cultural Heritage Impacts
- Planning Obligations

Waste Strategy
(in the context of the waste hierarchy and the strategic documents for Wales.)

Neutral

Local transport and associated engineering issues
- Land drainage
- Ground conditions

Landscape and Visual
- Viewpoints 12, 33 and 35

Health impacts
- Operational noise from proposed development
- Construction noise and vibration from proposed development (qualified)
- Dust from construction of proposed development (qualified)
- Odour emissions from waste handling (qualified)
- Plant emissions (qualified)
- Nuisances and vectors of disease (qualified)
- Movement of waste to and from the proposed development by HGV (qualified)

Negative

Socio-Economic
- Inward Investment (qualified)
- Employment (qualified)
- Tourism economy
- Tourism sector development in progress
- Rural economy
- Holistic regeneration investment.
Landscape and Visual
- Viewpoint from receptors 2, 7, 8, 9, 11, 12, 13, 14, 15, 28, 33, 34 and 35
- Visual impact – scale, mass, height of proposed main building
- Visual impact – height of chimney stack
- Visual impact – illumination
- Visual impact – HGV and other vehicles on sky line

Cultural Heritage Assets
- Group impacts
- Cultural heritage assets within Application Site
- Cultural heritage assets in close proximity to site (1km)
- Cultural heritage assets over 1km from site
- Historic landscape impacts

Natural Environment
- Contrary to Strategies and Plans
- Loss or change of purple moor grass and rush pastures.
- Loss or change of upland heathland and upland flushes, fens and swamps with no compensatory measures and/or mitigation.
- Loss or change to acid grassland, marshy grassland, mineral spoil, linear features, wildlife corridors, rivers and streams with no compensatory measures and/or mitigation.
- Great crested newts - reduced ecological connectivity with no compensatory measures and/or mitigation with the potential to affect the future range of the species.
- Toad - ecological connectivity and increased mortality as a consequence of increased road traffic, with no compensatory measures and/or mitigation
- Skylark – loss of bleeding territory with no compensatory measures and/or mitigation.
- Wheatear – loss of breeding territories with no compensatory measures and/or mitigation.
- Waxcap - loss of species with no compensatory measures and/or mitigation.

Local Transport and Associated Engineering Issues
- Effect on highway network (qualified and therefore considered marginally negative)
- Effect of rail network due to movements at unsocial hours through the villages of Bedlinog and Trelewis
- Effect on network due to the linear pressure on the already congested train paths using Queen Street Station, Cardiff
- Rights of Way
Health

- Perception of health risk (*qualified*)
- Movement of waste to and from the proposed development by road (*qualified*)

16.2 **APPRAISAL OF THE PROPOSED DEVELOPMENT’S COMPLIANCE WITH LOCAL POLICY & GUIDANCE**

The planning policy section is set out at Section 13.0 of this LIR. In summary, the proposed development is **not in compliance with** the following Local Development Plan policies:

- BW4  - Settlement boundaries/locational constraints
- BW5  - Natural heritage
- BW6  - Townscape and built heritage
- BW7  - Sustainable design and place making
- AS4  - Historic landscape
- AS6  - Local nature conservation designations
- TB7  - Renewable energy
- TB10 - Waste management facilities (qualified)
- TB12 - Freight traffic
APPENDICES

Appendix 1 - Design Commission for Wales review panel reports

Appendix 2 - Heads of the Valleys Accessible Natural Greenspace Assessment

Appendix 3 - Cultural Heritage Tables
  - Table CH1: List of historic assets within site boundary
  - Table CH2: List of historic assets within 1KM of the site boundary
  - Table CH3: Impacts of development on historic assets within site boundary
  - Table CH4: Impacts of development on Historic Assets within 1km of site boundary (excluding assets within site boundary).
  - Table CH5: Impacts of development on historic landscapes.
  - Table CH6: Impacts of development through planning obligations

Appendix 4 - Local Development Plan Policies
Addroddiad Adolygu Dylunio
Design Review Report

Review Status: Confidential

Meeting date: 21st April 2010
Issue Date: 12th May 2010
Scheme Location: Brig y Cwm EFW, Cwmargoed, Merthyr
Scheme Description: Energy from Waste plant
Planning Status: Pre-application

Part 1: Presentation

The proposal is for a large Energy from Waste (EFW) facility of 67 MWe capacity (approximately 200 MWth) with a main building size of 18,263 sqm, a transformer building of 1,650 sqm, and air cooled condensers of 2,430 sqm.

The applicant seeks to present an integrated strategy for the management of residual wastes in Wales recognising the economic and environmental benefits of EFW as opposed to a landfill solution. The applicant also recognises the sensitivity of such applications both politically and in potential host communities and seeks to gain from wide-ranging and early consultations.

Over 200 sites were considered throughout South Wales. Access to the adjacent railway was a significant factor in choosing this rural site, which is part of the Ffos y Fran Land Reclamation Area, to the east of Merthyr Tydfil. The visual impact of the building is seen as critical and the ‘statement building’ approach has been rejected. Instead, the team have opted for a curved building form which is proposed to fit in with the context of the surrounding rolling countryside. A muted colour palette has been selected to blend the building into the landscape and further reduce its impact.

The Local Authority has engaged in discussion with Covanta from an early stage and would encourage consideration of the wider impact of the scheme, such as potential jobs, as well as the building’s visual impact. Consultation has been carried out with the Infrastructure Planning Commission (IPC) and the local community.
covering public and technical issues. A planning application is expected to be submitted in September 2010.

Summary of key points arising from discussion, to be read in conjunction with Part 2 of this report.

The Panel welcomed this presentation and acknowledged the benefits of the EfW process for treating waste. However, we consider this to be a poor design response and we have the following major concerns:

- This is the first in a new generation of power plants in Wales and it needs to set a precedent by demonstrating exemplary design and operational processes.
- We have doubts about the ability of the plant to meet WAG aspirations for EfW plants to be at least 60% efficient (let alone European Directives requiring 65%). We would encourage more detailed and established arrangements with LFA (or IPC) conditions in place, and Local Authority corporate support for use of waste heat in public buildings.
- The Panel understands the difficulties in achieving BREEAM Industrial Excellent but would encourage a commitment to achieve a rating of Very Good. It is understood the planning application was submitted prior to MIPPS01/09 and that WAG funding is being made available.
- There may be benefits in seeking to enlarge the site footprint, in order to maximise opportunities for co-location of complementary technologies (for use of heat) and economic diversification. Such technologies might include bio-fuels, WEEE shed, and pelletisation for the biomass market.
- It is vital that the building is well integrated into the landscape and we are not convinced by the current architectural approach. The design team need to further explore the potential for sinking the building into the ground and/or sculpting the landscape around it.
- The possibility of other buildings emerging around the central development underlines the fundamental importance of how the main building is set and operates. Any additional buildings need to be considered throughout the design and development process.
- The Panel welcomes the setting up of a Trust Fund for the community as well as the employment benefits offered throughout the construction and on a long-term basis. We suggest energy improvements to housing fabric and investment in renewable energy, which would generate further revenue.
- The longer term community and employment benefits of this scheme should be emphasised. Such engagement may go some way to alleviating significant local protest and again the LA / IPC should seek to facilitate and secure these benefits.

Part 2: Discussion and Panel Response in Full
The Panel welcomed the application of EfW technology, as a more environmentally benign form of waste treatment than landfill. However, in order to make a convincing environmental case, it is vital that the considerable quantities of waste heat generated by this process should be used to offset fossil fuel use elsewhere. This is not yet a demonstrable part of the project, despite intentions to run heat mains to Merthyr and discussions with business to encourage re-location to the nearest Industrial Estate to utilise the heat. Local Authority support and conditions are necessary in this regard.

The applicant stated that source material would be transported by rail (75%) and road (25%) with an extra 80 vehicles a day using the Heads of the Valleys road. We felt there was insufficient analysis of the benefits of proximity to the railway line, how they would be realised, and the consequent choice of site.

Whilst it was recognised that one large plant is potentially more economically viable than several smaller versions, and that there are considerable difficulties associated with gaining planning permission for such sites, social, economic and environmental benefits of such plants should be more carefully evaluated.

The Panel stated the fundamental importance of a contextual design response for the main building and the need for a sympathetic relationship with the landscape. We were concerned that the site area and the location of the building on it were acting as a constraint on the design. A more appropriate contextual design response should be one which places a major part of the new building below ground, with a landscape architect charged to work with the design team to mould the new proposal into its setting. The Panel believed there were opportunities for a coordinated landscaped solution especially given the history of change to the landscape in the immediate area, and that such an approach was a more important consideration than cladding type, colour and texture. The visitor centre was acknowledged to be a potentially valuable educational and regeneration resource in terms of eco-tourism, which we thought could be successfully built into such a concept.

The Panel was informed of the possibility that the plant would not be able to be connected directly to the nearby pylons, which would necessitate a significant number of new electricity poles and cabling. Easements for the heat main are likely to follow the route of the road. However, if agreement can be reached with landowners, they would take a more direct cross-country route, and ecological reports and implications should be provided in this case.

The IPC scoping report is due out on Friday 23rd April

The Design Commission for Wales Design Review Panel and staff welcome further consultation and will be happy to provide further feedback on this report and/or where appropriate, to receive further presentations. Thank you for consulting the Commission and please keep in touch with us about the progress of your project.
A Welsh language copy of this report is available upon request.

**Appendix 1: Attendees**

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<td>Consultants:</td>
<td>RPS Planning and Development, WSP, Warwick Emmanuel, Burges Salmon</td>
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<td>AwdurddodCyntllunio/</td>
<td>Merthyr Tydfil County Borough Council</td>
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<td>Planning Authority</td>
<td>[Norman Davies]</td>
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<td>Glyn Jones [Flintshire County Council]</td>
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Addroddiad Adolygu Dylonio
Design Review Report

Review Status: Confidential

Meeting date: 23rd June 2010
Issue Date: 7th July 2010
Scheme Location: Brig y Cwm, Merthyr Tydfil
Scheme Description: Energy from Waste Plant
Planning Status: Pre-application

Part 1: Presentation

This project was seen previously at Design Review in April 2010. It was agreed to focus on the issues raised in that review.

The team have been working on reducing the visual impact of the building. A simple roof form has been developed, with a metal finish. The exact shade and material are still under discussion, but the intention is to blend it into the landscape as far as possible. The potential for part burying the building by up to 12 metres has been investigated. However this would require a significant retaining structure, with 20m long piles, 1200mm in diameter. 300,000 cubic metres of additional material would need to be removed with explosives, which would have implications for the nearby railway line. These major technical problems mean that lowering the building significantly is not feasible.

Possibilities for co-location of potential users of the waste heat are still being explored, on an adjacent site allocated for employment use. The team is in negotiation with one major user and they are confident that the benefits of lower utility costs will attract further interest.

The Local Authority had only just received the new material, but were encouraged by the direction of progress. They did question how representative the photomontages were. We were reminded that consent exists for the restoration of former open cast workings nearby and coordination will be necessary to ensure that this does not restrict any remodelling of the land form.
Summary of key points arising from discussion, to be read in conjunction with Part 2 of this report.

The Panel was encouraged by the progress that has been made since the last review. We think this is a good design response but major issues still remain to be resolved. In summary:

- We welcome the potential reuse of waste heat resulting in greater efficiencies. We trust that arrangements to deliver this will be in place before a planning application is made, as it is a fundamental aspect of the scheme’s overall sustainability.
- We would expect the LPA to support and actively encourage similar colocations and other potential users, which may be public buildings located in the town centre. This remit should be built into local policy and development briefs, and where relevant should be a condition for future consents.
- The simplified roof form is an improvement on the previous design. We suggested the team explore separating the ‘wings’ from the main roof, but only if this provided a clearer definition between the two, and resulted in a more elegant solution. If not, the existing single form should be pursued further. The supporting and retaining structure needs to be fully designed before a planning application is made to ensure that eaves and verge treatment are accurately represented, and that those structural arrangements are fully understood on plan and elevation and are built into costings and viability.
- Improving daylight levels internally would be desirable and may affect the roof design.
- The rationale for not being able to lower the building further into the ground, was accepted.
- Viewpoints should be agreed with the LPA and accurate photomontages should be provided. Every effort should be made to mitigate the effect of additional electricity distribution lines and high level lighting.
- It may be that 2 or 3 smaller stacks would have less visual impact than one taller stack, and we asked the team to consider this.
- The community benefits, especially local employment and training, were welcomed.

Part 2:  Discussion and Panel Response in Full

The Panel appreciated the progress being made on possible end users for the waste heat. We understood that ongoing negotiations were at a commercially sensitive stage, but that the potential use would involve large heating and cooling loads. Arrangements for this district scale heating/cooling system will be included in the planning application and, it is claimed, would deliver an efficiency of over 60% for the plant.

The Panel would expect the LPA to actively promote such opportunities for co-location and we advised that a renewable energy assessment should be undertaken, as set out in TAN 22. This proposal offers a good marketing opportunity for adjacent development sites and the benefits of lower utility costs should be made widely available. Any possibility of direct connections with Merthyr town centre should be explored, and public buildings which could be used as anchor loads should be identified, but these initiatives will depend on a
clear steer from the LPA. This site should figure strongly in the council’s relevant policy documents, as supporting evidence to any renewable energy / CO2 reduction targets or policies. Given the importance of the heat use, the Section 106 discussions should clearly focus on ensuring development of a heat network infrastructure.

A community fund will be established to deliver community benefits, including an education centre on the site which will integrate with key educational stages and vocational training and will reintroduce apprenticeship schemes. In this way it is hoped that the project will have a positive impact on local employment, sustainable procurement, and the use of local resources. Discussions on Section 106 contributions are ongoing.

The Panel welcomed the development of the architectural approach and its integration with the landscape. With regard to the large overhanging roofs, it will be important to keep the profile as slender as possible. We suggested that the side ‘wings’ might be dropped to become separate elements from the main roof, while still allowing sufficient height underneath. Either way, the solution needs to be tested in tandem with an appropriate structural engineering solution. Some areas of the main roof could be made translucent to allow daylight into the depth of the building, where it would offset artificial lighting.

The Panel accepted that owing to the particular ground conditions, lowering the building by more than the proposed 2 metres would be unfeasible. Given that the building itself is 50 metres tall, any earth sheltered solution would need to be significant in scale, to have any impact on the visual appearance.

It will be important to provide accurate photomontages from key viewpoints as part of the visual impact assessment and the planning application. These should include all associated infrastructure and familiar objects such as lorries, to give a sense of scale. The views in question will be mainly distant views, and we were informed that the structure will not be visible from the Heads of the Valleys road. Additional electricity distribution lines are likely to be above ground and to follow the route of the existing 400 kVA line. This could have a major impact and the proposed solution will be part of the environmental impact assessment. There will be 24 hour floodlighting around the stack and this may need some mitigation. Achieving the lighting elements of a BREEAM Industrial assessment could be used as a condition for development. Low level lighting will be provided on the access routes.

The team confirmed that 75% of waste material will be transported to the site by rail which will bring significant carbon savings. They anticipate that many existing journeys will be rationalised and that recycling depots could be developed at railheads. The Panel thought that these claimed benefits needed to be demonstrated in an evidence based study. We were informed that the offer of public money to subsidise this scheme had been declined, saving WAG some £230m, although some European money may be involved. For future users of the site, gate fees will be cheaper than current rates.

The Design Commission for Wales Design Review Panel and staff welcome further consultation and will be happy to provide further feedback on this report and/or where appropriate, to receive further presentations. Thank you for consulting the Commission and please keep in touch with us about the progress of your project.
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<td>VIEWPOINT 2</td>
<td>Coal Project</td>
</tr>
<tr>
<td>VIEWPOINT 3</td>
<td>Animal Welfare</td>
</tr>
<tr>
<td>VIEWPOINT 4</td>
<td>Water Quality</td>
</tr>
<tr>
<td>VIEWPOINT 5</td>
<td>Wildlife Reserve</td>
</tr>
<tr>
<td>VIEWPOINT 6</td>
<td>Tourism Center</td>
</tr>
<tr>
<td>VIEWPOINT 7</td>
<td>Eco-Park</td>
</tr>
<tr>
<td>VIEWPOINT 8</td>
<td>Marine Reserve</td>
</tr>
<tr>
<td>VIEWPOINT 9</td>
<td>Natural Reserve</td>
</tr>
</tbody>
</table>

*Should planning strategies remain with the wider investment of tourism recreation management and implementation plan for the area landscape to the approval of the JTA there is possibility that the impact could yield positive benefits.*
### Table CH1 – List of Historic Assets within site boundary

<table>
<thead>
<tr>
<th>Historic Environment Asset Type and Number</th>
<th>Name</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>HER 02756m / 04208m</td>
<td>Railway terminal and terrace of workers’ houses</td>
<td>Local</td>
</tr>
<tr>
<td>NMR 85511</td>
<td>Dowlais Iron Co Rly</td>
<td>Local</td>
</tr>
<tr>
<td>NMR 85513</td>
<td>Dowlais Iron Co Rly</td>
<td>Local</td>
</tr>
<tr>
<td>NMR 85538</td>
<td>Cwm Bargoed Pits</td>
<td>Local</td>
</tr>
<tr>
<td>NMR 85540</td>
<td>Cwm Bargoed Pits; Air Shaft</td>
<td>Local</td>
</tr>
<tr>
<td>NMR 85560</td>
<td>Fochriw Junction Signal Box</td>
<td>Local</td>
</tr>
<tr>
<td>NMR 85561</td>
<td>Cwm Bargoed Pits; Smithy</td>
<td>Local</td>
</tr>
<tr>
<td>NMR 85562</td>
<td>Cwm Bargoed Station</td>
<td>Local</td>
</tr>
<tr>
<td>NMR 85563</td>
<td>Fochriw Junction</td>
<td>Local</td>
</tr>
<tr>
<td>NMR 85619</td>
<td>Isaac Morgan Pond</td>
<td>National</td>
</tr>
<tr>
<td>NMR 85622</td>
<td>Dowlais Free Drainage System; Reservoir</td>
<td>National</td>
</tr>
<tr>
<td>NMR 85652</td>
<td>Dowlais Iron Co Rly</td>
<td>Local</td>
</tr>
<tr>
<td>NMR 88040</td>
<td>Dowlais Free Drainage System; Leat</td>
<td>National</td>
</tr>
<tr>
<td>NMR 88041</td>
<td>Dowlais Free Drainage System; Leat</td>
<td>National</td>
</tr>
<tr>
<td>NMR 88042</td>
<td>Dowlais Free Drainage System; Reservoir</td>
<td>National</td>
</tr>
<tr>
<td>N/A</td>
<td>Hafod</td>
<td>Local</td>
</tr>
</tbody>
</table>

### Table CH2 – List of Historic Assets within 1km of the site boundary (excluding assets within site boundary)

<table>
<thead>
<tr>
<th>Historic Environment Asset Type and Number</th>
<th>Name</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAM Gm 494 &amp; HER 00081m</td>
<td>Sarn Howell Pond and Watercourses</td>
<td>National</td>
</tr>
<tr>
<td>LB II 16143</td>
<td>Timber Aqueduct over former Taff Bargoed Railway</td>
<td>National (temporarily removed)</td>
</tr>
<tr>
<td>HER 02753m</td>
<td>Twyn-y-Waun Farm</td>
<td>Local</td>
</tr>
<tr>
<td>HER 02754m</td>
<td>Longtown Cottages</td>
<td>Local</td>
</tr>
<tr>
<td>HER 02760m</td>
<td>Penydarren Platform</td>
<td>Local</td>
</tr>
<tr>
<td>HER 02761m</td>
<td>Former Station, Penydarren Pit</td>
<td>Local</td>
</tr>
<tr>
<td>NMR 33463</td>
<td>Cwmbargoed Colliery Coal Mine</td>
<td>Local</td>
</tr>
<tr>
<td>NMR 402615</td>
<td>Penydarren Disused Coal Pits, Merthyr Common East, NE of Pentrebach Coal Mine</td>
<td>Local</td>
</tr>
<tr>
<td>NMR 85514</td>
<td>Cwm Bargoed Pits, Tramroad Railway</td>
<td>Local</td>
</tr>
<tr>
<td>NMR 85516</td>
<td>Tramroad in Cwm Golau</td>
<td>Local</td>
</tr>
<tr>
<td>NMR 85525</td>
<td>Soap Vein Pond</td>
<td>Local</td>
</tr>
<tr>
<td>NMR 85535</td>
<td>Cwm Golau Level</td>
<td>Local</td>
</tr>
<tr>
<td>NMR 85536</td>
<td>Cwm Golau Mine Shaft</td>
<td>Local</td>
</tr>
<tr>
<td>NMR 85537</td>
<td>Cwm Golau Level</td>
<td>Local</td>
</tr>
<tr>
<td>NMR</td>
<td>Description</td>
<td>Location</td>
</tr>
<tr>
<td>---------</td>
<td>------------------------------------------------------------------------------</td>
<td>----------</td>
</tr>
<tr>
<td>85558</td>
<td>Soap Vein Pond, old shaft</td>
<td>Local</td>
</tr>
<tr>
<td>85599</td>
<td>Isaac Morgan Pond (Dowlais Free Drainage System)</td>
<td>National</td>
</tr>
<tr>
<td>85645</td>
<td>Dowlais Iron Co Rly, L&amp;NWR Cwm Bargoed Branch</td>
<td>Local</td>
</tr>
<tr>
<td>85647</td>
<td>Penydarren Pits Incline (Penydarren Iron Co Rly)</td>
<td>Local</td>
</tr>
<tr>
<td>85648</td>
<td>Dowlais Iron Co Rly, Junction</td>
<td>Local</td>
</tr>
<tr>
<td>85702</td>
<td>Isaac Morgan's Pit, coal mine</td>
<td>Local</td>
</tr>
<tr>
<td>85741</td>
<td>Soap Pit</td>
<td>Local</td>
</tr>
<tr>
<td>85974</td>
<td>Tre-hir Pond (Dowlais Free Drainage System)</td>
<td>National</td>
</tr>
<tr>
<td>85975</td>
<td>Merthyr Common, Drainage Ditch on..</td>
<td>Local</td>
</tr>
<tr>
<td>85977</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
</tr>
<tr>
<td>85978</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
</tr>
<tr>
<td>85979</td>
<td>Tre-hir Pond, Leat W of Leat</td>
<td>Local</td>
</tr>
<tr>
<td>85980</td>
<td>Shaft, W of Tre-hir Pond, Mine Shaft</td>
<td>Local</td>
</tr>
<tr>
<td>85981</td>
<td>Tre-hir Pond, Dam</td>
<td>National</td>
</tr>
<tr>
<td>85982</td>
<td>Dowlais Free Drainage System, Reservoir</td>
<td>National</td>
</tr>
<tr>
<td>85983</td>
<td>Tre-Hir Pond, Valve House, Valve House</td>
<td>National</td>
</tr>
<tr>
<td>85984</td>
<td>Soap Pit, Adit W of Level</td>
<td>Local</td>
</tr>
<tr>
<td>85985</td>
<td>Soap Pit, Adit W of Level</td>
<td>Local</td>
</tr>
<tr>
<td>85986</td>
<td>Soap Pit, Adit W of Level</td>
<td>Local</td>
</tr>
<tr>
<td>85987</td>
<td>Dowlais Free Drainage System Leat</td>
<td>National</td>
</tr>
<tr>
<td>85989</td>
<td>Penydarren Road (Dowlais Free Drainage System)</td>
<td>National</td>
</tr>
<tr>
<td>85991</td>
<td>Pit, Merthyr Common</td>
<td>Local</td>
</tr>
<tr>
<td>85992</td>
<td>Dam, Dowlais Free Drainage System</td>
<td>National</td>
</tr>
<tr>
<td>85993</td>
<td>Merthyr Common, Hut Circle</td>
<td>Local</td>
</tr>
<tr>
<td>85995</td>
<td>Bridge, L&amp;NWR, Cwm Bargoed Branch</td>
<td>Local</td>
</tr>
<tr>
<td>85997</td>
<td>Road Bridge over GW&amp;R Railway, Taff Bargoed</td>
<td>Local</td>
</tr>
<tr>
<td>85998</td>
<td>Dowlais Free Drainage System, Reservoir</td>
<td>National</td>
</tr>
<tr>
<td>85999</td>
<td>Dowlais Free Drainage, Leat</td>
<td>National</td>
</tr>
<tr>
<td>86972</td>
<td>East Merthyr Colliery (Washery)</td>
<td>Local</td>
</tr>
<tr>
<td>86977</td>
<td>Merthyr East, Mining Features</td>
<td>Local</td>
</tr>
<tr>
<td>88001</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
</tr>
<tr>
<td>88002</td>
<td>Dowlais Free Drainage System, Leat</td>
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<tr>
<td>88003</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
</tr>
<tr>
<td>88004</td>
<td>Dam, Penydarren Pond</td>
<td>National</td>
</tr>
<tr>
<td>88005</td>
<td>Sluice, Penydarren Pond</td>
<td>National</td>
</tr>
<tr>
<td>88006</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
</tr>
<tr>
<td>88007</td>
<td>Penydarren Platform</td>
<td>Local</td>
</tr>
<tr>
<td>88008</td>
<td>GW&amp;R Joint Rly, Raff Bargoed Section, Bridge</td>
<td>Local</td>
</tr>
<tr>
<td>88011</td>
<td>Penydarren Pond, Drainage Ditch East of..</td>
<td>National</td>
</tr>
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<td>88029</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
</tr>
<tr>
<td>88030</td>
<td>Dam, Soap Vein Pond</td>
<td>National</td>
</tr>
<tr>
<td>88033</td>
<td>Soap Pit Houses</td>
<td>Local</td>
</tr>
<tr>
<td>88034</td>
<td>Pond Near Soap Pit Houses</td>
<td>National</td>
</tr>
<tr>
<td>88035</td>
<td>Soap Pit, Spoil Heaps</td>
<td>Local</td>
</tr>
<tr>
<td>88036</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
</tr>
<tr>
<td>88038</td>
<td>Military Huts, Cwm Bargoed</td>
<td>Local</td>
</tr>
<tr>
<td>88039</td>
<td>Dowlais Free Drainage System, Reservoir</td>
<td>National</td>
</tr>
<tr>
<td>88045</td>
<td>Dowlais Free Drainage System, Reservoir</td>
<td>National</td>
</tr>
<tr>
<td>88046</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
</tr>
<tr>
<td>88047</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
</tr>
<tr>
<td>88048</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
</tr>
<tr>
<td>88049</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
</tr>
<tr>
<td>88050</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
</tr>
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</table>
Table CH3 – Impacts of development on Historic Assets within site boundary

<table>
<thead>
<tr>
<th>Historic Environment Asset No.</th>
<th>Name</th>
<th>Importance</th>
<th>Impact of Development</th>
<th>Positive / Negative / Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>HER 02756m / 04208m</td>
<td>Railway terminal and terrace of workers' houses</td>
<td>Local</td>
<td>Switchyard to be located on this site. Likely to be destroyed.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85511</td>
<td>Dowlais Iron Co Rly</td>
<td>Local</td>
<td>Location of external storage area. Remnants likely to be destroyed or surfaced over.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85513</td>
<td>Dowlais Iron Co Rly</td>
<td>Local</td>
<td>Location of fuel tank. Remnants likely to be destroyed</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85538</td>
<td>Cwm Bargoed Pits</td>
<td>Local</td>
<td>Location of sprinkler tanks and pump house. Likely to be destroyed.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85540</td>
<td>Cwm Bargoed Pits; Air Shaft</td>
<td>Local</td>
<td>Location of sprinkler tanks and pump house. Likely to be destroyed.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85560</td>
<td>Fochriw Junction Signal Box</td>
<td>Local</td>
<td>Adjacent to access road. Railway infrastructure to be retained. Effect on setting</td>
<td>Neutral</td>
</tr>
<tr>
<td>NMR 85561</td>
<td>Cwm Bargoed Pits; Smithy</td>
<td>Local</td>
<td>Location of access road. Likely to be destroyed.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85562</td>
<td>Cwm Bargoed Station</td>
<td>Local</td>
<td>Within area of soft landscape. Likely to be destroyed by balancing pond</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85563</td>
<td>Fochriw Junction</td>
<td>Local</td>
<td>Location of railway. Retains use.</td>
<td>Neutral</td>
</tr>
<tr>
<td>NMR 85619</td>
<td>Isaac Morgan Pond</td>
<td>National</td>
<td>Location of lay down area. Effect on setting if retained</td>
<td>Neutral</td>
</tr>
<tr>
<td>NMR 85622</td>
<td>Dowlais Free Drainage System; Reservoir</td>
<td>National</td>
<td>Location of lay down area. Effect on setting if retained</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85652</td>
<td>Dowlais Iron Co Rly</td>
<td>Local</td>
<td>Location of railway. Retains use</td>
<td>Neutral</td>
</tr>
<tr>
<td>NMR 88040</td>
<td>Dowlais Free Drainage System; Leat</td>
<td>National</td>
<td>Location of lay down area. Effect on setting if retained</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88041</td>
<td>Dowlais Free Drainage System; Leat</td>
<td>National</td>
<td>Location of lay down area. Effect on setting if retained</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88042</td>
<td>Dowlais Free Drainage System; Reservoir</td>
<td>National</td>
<td>Location of lay down area. Effect on setting if retained</td>
<td>Negative</td>
</tr>
<tr>
<td>N/A</td>
<td>Hafod</td>
<td>Local</td>
<td>Location of access road. Likely to be destroyed</td>
<td>Negative</td>
</tr>
</tbody>
</table>
Table CH4 - Impacts of development on Historic Assets within 1km of site boundary (excluding assets within site boundary)

<table>
<thead>
<tr>
<th>Historic Environment Asset Type and Number</th>
<th>Name</th>
<th>Importance</th>
<th>Impact of Development</th>
<th>Positive / Negative / Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>SAM Gm 494 &amp; HER 00081m</td>
<td>Sarn Howell Pond and Watercourses</td>
<td>National</td>
<td>Development located adjacent to asset. Construction in similar scale, potential overbearing and decrease in potential for appreciation</td>
<td>Negative</td>
</tr>
<tr>
<td>LB II 16143</td>
<td>Timber Aqueduct over former Taff Bargoed Railway</td>
<td>National (temporarily removed)</td>
<td>Introduction of modern structure to east. Change in local area character</td>
<td>Negative (Temporarily Neutral)</td>
</tr>
<tr>
<td>HER 02753m</td>
<td>Twyn-y-Waun Farm</td>
<td>Local</td>
<td>Introduction of prominent feature to south. Partial removal of longer views</td>
<td>Negative</td>
</tr>
<tr>
<td>HER 02754m</td>
<td>Longtown Cottages</td>
<td>Local</td>
<td>Introduction of prominent feature to south. Partial removal of longer views</td>
<td>Negative</td>
</tr>
<tr>
<td>HER 02760m</td>
<td>Penydarren Platform</td>
<td>Local</td>
<td>Introduction of prominent feature to east</td>
<td>Negative</td>
</tr>
<tr>
<td>HER 02761m</td>
<td>Former Station, Penydarren Pit</td>
<td>Local</td>
<td>Introduction of prominent feature to east</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 33463</td>
<td>Cwmbargoed Colliery Coal Mine</td>
<td>Local</td>
<td>Introduction of prominent feature to north</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 402615</td>
<td>Penydarren Disused Coal Pits, Merthyr Common East, NE of Pentrebach Coal Mine</td>
<td>Local</td>
<td>Introduction of large building, recedes slightly into nearby infrastructure associated with washery. Development building appears lower than current tip.</td>
<td>Neutral</td>
</tr>
<tr>
<td>NMR 85514</td>
<td>Cwm Bargoed Pits, Tramroad Railway</td>
<td>Local</td>
<td>Introduction of prominent feature immediately to north. Removal of northerly setting</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85516</td>
<td>Tramroad in Cwm Golau</td>
<td>Local</td>
<td>Introduction of large building, recedes slightly into nearby infrastructure associated with washery. Development building appears lower than current tip.</td>
<td>Neutral</td>
</tr>
<tr>
<td>NMR 85525</td>
<td>Soap Vein Pond</td>
<td>Local</td>
<td>Introduction of large building, recedes slightly into nearby infrastructure associated with washery. Development building appears lower than current tip.</td>
<td>Neutral</td>
</tr>
<tr>
<td>NMR 85535</td>
<td>Cwm Golau Level</td>
<td>Local</td>
<td>Introduction of large building, recedes slightly into nearby infrastructure associated with washery.</td>
<td>Neutral</td>
</tr>
<tr>
<td>Reference</td>
<td>Location</td>
<td>Scale</td>
<td>Description</td>
<td>Impact</td>
</tr>
<tr>
<td>-----------</td>
<td>----------</td>
<td>-------</td>
<td>-------------</td>
<td>--------</td>
</tr>
<tr>
<td>NMR 85536</td>
<td>Cwm Golau Mine Shaft</td>
<td>Local</td>
<td>Introduction of large building, recedes slightly into nearby infrastructure associated with washery. Development building appears lower than current tip.</td>
<td>Neutral</td>
</tr>
<tr>
<td>NMR 85537</td>
<td>Cwm Golau Level</td>
<td>Local</td>
<td>Introduction of large building, recedes slightly into nearby infrastructure associated with washery. Development building appears lower than current tip.</td>
<td>Neutral</td>
</tr>
<tr>
<td>NMR 85558</td>
<td>Soap Vein Pond, old shaft</td>
<td>Local</td>
<td>Introduction of building to south. Removal of southern setting and views.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85599</td>
<td>Isaac Morgan Pond (Dowlais Free Drainage System)</td>
<td>National</td>
<td>Introduction of building immediately to south. Removal of southern setting to extent. Intervisibility between related assets partially removed.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85645</td>
<td>Dowlais Iron Co Rly, L&amp;NWR Cwm Bargoed Branch</td>
<td>Local</td>
<td>Introduction of modern structure to east. Setting and views to east removed.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85647</td>
<td>Penydarren Pits Incline (Penydarren Iron Co Rly)</td>
<td>Local</td>
<td>Introduction of modern structure to east. Setting and views to east partially removed.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85648</td>
<td>Dowlais Iron Co Rly, Junction</td>
<td>Local</td>
<td>Introduction of modern structure to east. Setting and views to east partially removed.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85702</td>
<td>Isaac Morgan’s Pit, coal mine</td>
<td>Local</td>
<td>Introduction of modern structure immediately to east. Setting and views to east removed.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85741</td>
<td>Soap Pit</td>
<td>Local</td>
<td>Introduction of building immediately to south. Removal of southern setting and views.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85974</td>
<td>Tre-hir Pond (Dowlais Free Drainage System)</td>
<td>National</td>
<td>Introduction of modern building to south-east. Removal of longer views and landscape character of setting</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85975</td>
<td>Merthyr Common, Drainage Ditch on..</td>
<td>Local</td>
<td>Introduction of modern building to south-east. Removal of longer views and landscape character of setting</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85977</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
<td>Introduction of modern building to south-east. Removal of longer views and landscape character of setting</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85978</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
<td>Introduction of modern building to south-east. Removal of longer views and landscape character of setting</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85979</td>
<td>Tre-hir Pond, Leat W of Leat</td>
<td>Local</td>
<td>Introduction of modern building to south-east. Removal of longer views and landscape character of setting</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85980</td>
<td>Shaft, W of Tre-hir Pond, Mine Shaft</td>
<td>Local</td>
<td>Introduction of building to south. Interruption of southern setting and views.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85981</td>
<td>Tre-hir Pond, Dam</td>
<td>National</td>
<td>Introduction of building to south. Interruption of southern setting and views.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85982</td>
<td>Dowlais Free Drainage System, Reservoir</td>
<td>National</td>
<td>Introduction of building to south. Interruption of southern setting and views. Intervisibility between associated assets removed.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85983</td>
<td>Tre-Hir Pond, Valve House, Valve House</td>
<td>National</td>
<td>Introduction of building to south. Interruption of southern setting and views.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85984</td>
<td>Soap Pit, Adit W of Level</td>
<td>Local</td>
<td>Introduction of building to south. Interruption of southern setting and views.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85985</td>
<td>Soap Pit, Adit W of Level</td>
<td>Local</td>
<td>Introduction of building to south. Interruption of southern setting and views.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85986</td>
<td>Soap Pit, Adit W of Level</td>
<td>Local</td>
<td>Introduction of building to south. Interruption of southern setting and views.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85987</td>
<td>Dowlais Free Drainage System Leat</td>
<td>National</td>
<td>Introduction of modern structure to south-east. Setting and views partially removed. Visual connection with associated features partially removed</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85989</td>
<td>Penydarren Road (Dowlais Free Drainage System)</td>
<td>National</td>
<td>Introduction of modern structure to south. Setting and views partially removed. Visual connection with associated features partially removed</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85991</td>
<td>Pit, Merthyr Common</td>
<td>Local</td>
<td>Introduction of modern structure to south-east. Setting and views partially removed.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85992</td>
<td>Dam, Dowlais Free Drainage System</td>
<td>National</td>
<td>Introduction of modern structure to east. Setting and views to east partially removed.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85993</td>
<td>Merthyr Common, Hut Circle</td>
<td>Local</td>
<td>Introduction of modern structure to east. Setting and views to east partially removed.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85995</td>
<td>Bridge, L&amp;NWR, Cwm Bargoed Branch</td>
<td>Local</td>
<td>Introduction of modern structure to east. Setting and views to east partially removed.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85997</td>
<td>Road Bridge over GW&amp;R Railway, Taff Bargoed</td>
<td>Local</td>
<td>Introduction of modern structure to east. Setting partially removed.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR Code</td>
<td>Site Description</td>
<td>Scale</td>
<td>Impact Description</td>
<td>Assessment</td>
</tr>
<tr>
<td>-------------</td>
<td>------------------------------------------</td>
<td>-------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>NMR 85998</td>
<td>Dowlais Free Drainage System, Reservoir</td>
<td>National</td>
<td>Introduction of modern structure to east. Setting and views to east partially removed. Visual connection with associated features partially removed</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 85999</td>
<td>Dowlais Free Drainage, Leat</td>
<td>National</td>
<td>Introduction of modern structure to east. Setting and views to east partially removed. Visual connection with associated features partially removed</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 86972</td>
<td>East Merthyr Colliery (Washery)</td>
<td>Local</td>
<td>Introduction of large building, recedes slightly into nearby infrastructure associated with washery. Development building appears lower than current tip.</td>
<td>Neutral</td>
</tr>
<tr>
<td>NMR 86977</td>
<td>Merthyr East, Mining Features</td>
<td>Local</td>
<td>Introduction of modern structure to south east. Change in wider landscape character. Views removed to south east.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88001</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
<td>Introduction of modern structure to east. Setting and views to east partially removed. Visual connection with associated features partially removed</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88002</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
<td>Introduction of modern structure to east. Setting and views to east partially removed. Visual connection with associated features partially removed</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88003</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
<td>Introduction of modern structure to east. Setting and views to east partially removed. Visual connection with associated features partially removed</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88004</td>
<td>Dam, Penydarren Pond</td>
<td>National</td>
<td>Introduction of modern structure to east. Setting and views to east partially removed. Visual connection with associated features partially removed</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88005</td>
<td>Sluice, Penydarren Pond</td>
<td>National</td>
<td>Introduction of modern structure to east. Setting and views to east partially removed. Visual connection with associated features partially removed</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88006</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
<td>Introduction of modern structure to east. Setting and views to east partially removed. Visual connection with associated features partially removed</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88007</td>
<td>Penydarren Platform</td>
<td>Local</td>
<td>Introduction of modern structure to east. Setting and views to east partially removed.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88008</td>
<td>GW&amp;R Joint Rly, Raff Bargoed</td>
<td>Local</td>
<td>Introduction of modern structure to east. Setting and views to east partially removed.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88011</td>
<td>Penydarren Pond, Drainage Ditch East of...</td>
<td>National</td>
<td>Introduction of modern structure to east. Setting and views to east partially removed. Visual connection with associated features partially removed</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88030</td>
<td>Dam, Soap Vein Pond</td>
<td>National</td>
<td>Introduction of building to south. Removal of southern setting and views. Intervisibility with associated assets removed slightly.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88033</td>
<td>Soap Pit Houses</td>
<td>Local</td>
<td>Introduction of building to south. Removal of southern setting and views.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88034</td>
<td>Pond Near Soap Pit Houses</td>
<td>National</td>
<td>Introduction of building to south. Removal of southern setting and views. Intervisibility with associated assets removed slightly.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88035</td>
<td>Soap Pit, Spoil Heaps</td>
<td>Local</td>
<td>Introduction of building to south. Removal of southern setting and views.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88038</td>
<td>Military Huts, Cwm Bargoed</td>
<td>Local</td>
<td>Introduction of building immediately to south. Removal of southern setting and views.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88039</td>
<td>Dowlais Free Drainage System, Reservoir</td>
<td>National</td>
<td>New construction in vicinity having overbearing effect. Removal of visual connection between DFDS features</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88045</td>
<td>Dowlais Free Drainage System, Reservoir</td>
<td>National</td>
<td>Resurfacing in close proximity. New structure to remove views to east. Impact on setting of feature.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88046</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
<td>Resurfacing in close proximity. New structure to remove views to east. Impact on setting of feature.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88047</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
<td>Resurfacing in close proximity. New structure to remove views to east. Impact on setting of feature.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88048</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
<td>Resurfacing in close proximity. New structure to remove views to east. Impact on setting of feature.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88049</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
<td>Resurfacing in close proximity. New structure to remove views to east. Impact on setting of feature.</td>
<td>Negative</td>
</tr>
<tr>
<td>NMR 88050</td>
<td>Dowlais Free Drainage System, Leat</td>
<td>National</td>
<td>Resurfacing in close proximity. New structure to remove views to east. Impact on setting of feature.</td>
<td>Negative</td>
</tr>
</tbody>
</table>
### Table CH5 – Impacts of development on historic landscapes

<table>
<thead>
<tr>
<th>Historic Landscape Character Area</th>
<th>Impact of Development</th>
<th>Extent</th>
<th>Positive / Negative / Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merthyr Tydfil 031 and 032</td>
<td>Large site footprint incurring visual impact on high percentage of character area</td>
<td>Approximately 10% of HCLA 032</td>
<td>Negative</td>
</tr>
<tr>
<td>Merthyr Tydfil (numerous HLCAs)</td>
<td>Dominant feature in upland position overlooking historic landscape.</td>
<td>HCLA areas within ZTV</td>
<td>Negative</td>
</tr>
<tr>
<td>Merthyr Tydfil (numerous HCLAs)</td>
<td>Impact upon Merthyr Tydfil as a potential World Heritage Site</td>
<td>HCLA areas within proposed WHS and ZTV</td>
<td>Negative</td>
</tr>
<tr>
<td>Merthyr Tydfil 031 and 032</td>
<td>The development will facilitate the removal of archaeological resource</td>
<td>Approximately 10 features within HCLAs 031 and 032</td>
<td>Negative</td>
</tr>
<tr>
<td>Merthyr Tydfil 031 and 039</td>
<td>Visual connectivity of linked heritage assets associated with Dowlais Free Drainage System removed</td>
<td>Scheduled, Listed and undesignated features within HCLAs 031 and 039</td>
<td>Negative</td>
</tr>
<tr>
<td>Merthyr Tydfil 031 and 032</td>
<td>Cessation of traditional land use within character area</td>
<td>Change of use within site boundary within HCLAs 031 and 032</td>
<td>Neutral</td>
</tr>
<tr>
<td>Merthyr Tydfil 031 and 032</td>
<td>Alteration of general views inside and outside of character areas</td>
<td>Feature to affect aspects in HCLAs 031 and 032</td>
<td>Negative</td>
</tr>
<tr>
<td>Gelligaer Common 006</td>
<td>Amenity value removed of Pengarn Bugail Character Area</td>
<td>Views from HCLA 006</td>
<td>Negative</td>
</tr>
<tr>
<td>Gelligaer Common 006</td>
<td>Visual threat from modern sources cited as an issue within Historic Landscape management Plan. Development will add to this.</td>
<td>Views from HCLA 006</td>
<td>Negative</td>
</tr>
</tbody>
</table>

### Table CH6 – Impacts of development through planning obligations

<table>
<thead>
<tr>
<th>Obligation</th>
<th>Status</th>
<th>Impact</th>
<th>Positive / Negative / Neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inclusion of Visitor Centre</td>
<td>Suggested within ES. No requirement for heritage interpretation in Heads of Terms</td>
<td>Increased awareness of cultural heritage of vicinity. Interpretation of surrounding historic landscape. Educational facility for local people.</td>
<td>Positive</td>
</tr>
<tr>
<td>Archaeological Watching Brief</td>
<td>In Draft Development Consent Order</td>
<td>Potential for undiscovered archaeological remains to be recorded. Improved treatment of archaeological features. Increased knowledge of site.</td>
<td>Positive</td>
</tr>
<tr>
<td>Historic Landscape Interpretation and Management Plan</td>
<td>Suggested by MTCBC for inclusion in draft Heads of Terms</td>
<td>Increased connectivity between historic landscape areas. Improved interpretation to visitors. Commuted sums for improvements to heritage features and connection corridors.</td>
<td>Positive</td>
</tr>
</tbody>
</table>
LOCAL DEVELOPMENT PLAN POLICIES

The following Local Development Plan policies are considered relevant to the proposed development. They relate to Borough Wide (BW), Area Specific (AS) and Topic Based (TB) policies.

Borough Wide Policies

Policy BW4: Settlement Boundaries/Locational Constraints

Settlement boundaries are defined on the LDP Proposals Map in order to define the area within which development will be allowed providing it is compatible with other relevant plan policies and material planning considerations.

Outside defined settlement boundaries, proposals will be regarded as ‘countryside development’ and will not be permitted unless:-

- The development is associated with rural enterprises or the winning and working of minerals.
- The development is for the re-use, adaptation, or replacement of rural buildings and dwellings.
- The development supports the expansion of an existing business in the countryside.
- The development is for tourism, recreation or leisure facilities where the need for a countryside location is fully justified.
- The development is for the provision of public utilities, infrastructure or waste management facilities that cannot reasonably be located elsewhere.
- The development is required for the reclamation or treatment of unstable or contaminated land.
- The development is for renewable energy.

Where ‘countryside development’ is considered acceptable in principle, the proposal must also satisfy other relevant plan policies.

Policy BW5: Natural Heritage

The Council will protect and support the enhancement of the County Borough’s distinctive natural heritage. Development proposals will only be permitted where they maintain, enhance or do not cause harm to:-

- the landscape character of the countryside;
- national and local nature conservation designations;
- trees, woodlands and hedgerows that have natural heritage value or contribute to the character and amenity of an area; and
- other biodiversity interests including protected and priority species and ecological networks.

Policy BW6: Townscape and built heritage

The Council will protect and support the enhancement of the unique built heritage of the County Borough. Development proposals will only be permitted where it can be demonstrated they would preserve or enhance the architectural quality, character and setting of any of the following:-

- listed buildings;
- scheduled ancient monuments;
- conservation areas;
- registered Historic Parks and Gardens of Special Historic Interest;
- townscape character and the local distinctiveness of settlements;
- other historic, archaeological and cultural features of acknowledged importance.

Policy BW7: Sustainable Design and Place Making

The Council will support good quality sustainable design and require new development to:-

- be appropriate to its local context in terms of scale, height, massing, elevational treatment, materials and detailing, layout, form, mix and density;
- integrate effectively with adjacent spaces and the public realm to enhance the general street scene and create good quality townscape;
- not result in unacceptable impact on local amenity in terms of visual impact, loss of light or privacy, disturbance and traffic movements;
- incorporate a good standard of landscape design;
- sensitively relate to existing settlement patterns and take account of natural heritage and the historic environment on site and in terms of potential impact on neighbouring areas of importance;
- foster ‘inclusive design’ by ensuring the development allows access for the widest range of people possible;
- contribute to the provision of usable open and outdoor play space, ensuring its accessibility and connectivity to other green infrastructure, footpaths and cycleways;
- incorporate resource efficient / adaptable buildings and layouts using sustainable design and construction techniques, including the re-use and
recycling of construction and demolition waste on site, and energy and water conservation / efficiency measures;

- minimise the demand for energy and, where appropriate, utilise the renewable energy resource through appropriate layout, orientation, mix of uses, density of development, landscaping, optimal use of local topography and incorporation of renewable energy technologies;

- incorporate facilities for the segregation, recovery and recycling of waste; and provide a safe environment by addressing issues of security, crime prevention, and the fear of crime in the design of buildings and the space and routes around them.

**Policy BW8: Development and the Water Environment**

Proposals for built development will only be permitted where:-

- they avoid identified river flood plains in order that these areas continue to fulfill their flood flow and water storage functions;

- they do not have an adverse effect on the quality and/or quantity of surface waters or groundwater resources, and where opportunities exist, they incorporate measures to improve existing water quality; and

- adequate water and sewerage systems exist, or are reasonably accessible, or are capable of being provided prior to the development becoming operational without placing unacceptable pressure on existing capacity or causing unacceptable environmental harm.

In addition, development proposals will be required to avoid exacerbating flood risk locally and elsewhere within the river catchment by incorporating sustainable drainage systems (SuDS) for the disposal of surface water.

Alternative methods of surface water disposal will only be considered where a developer demonstrates that the incorporation of SuDS is inappropriate for practical or environmental reasons.

**Policy BW10: Mineral Safeguarding**

The LDP contributes to meeting society's need for a continuous and secure supply of minerals by:-

1. safeguarding mineral resources from permanent development which would sterilise them or hinder their extraction;

2. safeguarding mineral reserves from development which would prevent their extraction in order to maintain a minimum 10 year land bank of permitted aggregate reserves.

**Policy BW12: Development Proposals and Transport**
Where appropriate, the Council will expect all development proposals to demonstrate how they will:

- help reduce the need to travel
- encourage the use of transport other than the private car
- avoid increasing traffic to unacceptable levels
- avoid causing or exacerbating highway safety problems

Transport assessments will be required for developments likely to result in significant trip generation.

**Policy BW17: Securing Community Infrastructure Benefits**

Development proposals will only be permitted where adequate community infrastructure capacity exists or where additional capacity is capable of being provided as part of the development without unacceptable impacts on people or the environment. In order to address the impacts of particular developments, the Council will seek to secure community infrastructure benefits through planning obligations. Such obligations may relate to:

- affordable housing
- suitably designed and located public open space and play, recreation, sport and leisure facilities
- education provision
- specialist social care accommodation
- other community facilities
- highway works, pedestrian and cycling facilities, and public transport improvements
- improvements to the public realm
- waste management and recycling
- drainage and sewerage works
- flood risk mitigation measures
- nature conservation

**Policy BW18: Contaminated Land**

Development proposed on a site known or reasonably believed to be contaminated, will require a site assessment to establish the nature and extent of the contamination prior to determining the application. Development will not be permitted unless it is demonstrated that effective measures can be taken to treat or control any contamination in order not to:

- expose occupiers of the development land and neighbouring land to unacceptable risk;
- contaminate any watercourse, water body or aquifer;
• cause the contamination of adjoining land or allow the contamination to continue.

Where suitable remedial measures are agreed with the Authority, these must be completed before the development commences.

Area Specific Policies

Policy AS4: Historic Landscape

There will be a presumption in favour of the protection, conservation and enhancement of:-

• Gelligaer Common, and
• the main settlement of Merthyr Tydfil in accord with their status as Landscapes of Historic Interest in Wales.

The extent of these areas is shown on the LDP Proposals Map and proposals for development will only be permitted where they would maintain or enhance the character and integrity of the landscape.

Policy AS6: Local Nature Conservation Designations

Using published scientific criteria, Sites of Importance for Nature Conservation have been designated as shown on the LDP Proposals Map. Applications for development affecting these sites and/or the Cwm Taf Fechan Local Nature Reserve, will not be permitted unless full account has been taken of the relevant features so as to prevent damage to their conservation value. Where appropriate, planning conditions or a planning agreement will be employed to safeguard and/or enhance features, or to provide appropriate mitigation and/or compensatory measures.

Policy AS7: Waste Management Facilities – Locations of Choice

The LDP adopts a hierarchical approach to waste management whereby the preferred option is waste minimisation/avoidance; followed by product re-use; then recovery, firstly through recycling and composting and secondly through energy from waste; and finally, safe disposal.

Using regional search criteria, the following locations are identified in order to help meet regional and local waste management needs:-

• B2 employment sites – as areas of search for appropriate waste management facilities to meet the estimated land requirement of up to 3.2 hectares. Trecatti – safeguarded for continued necessary landfill of residual and unavoidable wastes.
Where new waste facilities fall outside B2 employment sites, applicants will be required to demonstrate why these identified areas of search are unsuitable for the development proposed.

**Topic Based Policies**

**Policy TB7: Renewable Energy**
Development proposals that contribute to meeting national and local renewable energy targets will be favourably considered providing:-

- In the case of wind turbine developments, their capacity does not exceed 25 MW on urban and industrial brownfield sites, and 5 MW elsewhere in the County Borough
- They do not have an unacceptable impact on biodiversity and landscape including the setting of the Brecon Beacons National Park
- They do not have an unacceptable impact on the amenity of residential areas.

**Policy TB8: Mineral Proposals**

Proposals for mineral extraction and associated development will only be allowed where:-

1. they would not result in unacceptable environmental impacts;
2. they would not result in an unacceptable impact on the health and amenity of neighbouring land uses including the effects of dust, noise, vibration and traffic;
3. they are acceptable in terms of geological, hydrological and hydro-geological factors;
4. they would not conflict with transportation considerations including access, parking, traffic generation, and enjoyment of public rights of way;
5. they would not have an unacceptable impact on land stability;
6. they include acceptable proposals for progressive and final restoration, aftercare and beneficial after-use; and
7. they maximise opportunities to re-use and recycle mineral waste.

The production and use of alternative and recycled materials will be supported as substitutes for naturally occurring aggregates.

**Policy TB10: Waste Management Facilities**

Development proposals for new and expanded in-building and open-air waste management facilities other than those involving new landfill capacity/sites will be permitted subject to consideration against the following criteria:-
1. there is demonstrable need for the proposal within the context of the County Borough’s waste management requirements and/or regional need;
2. the proposal must not have an unacceptable impact on the health and amenity of neighbouring land uses including the effects of dust and other emissions, noise and odours; and
3. the proposal must not conflict with transportation considerations including access, parking, traffic generation, accessibility to public transport and enjoyment of public rights of way.

**Policy TB11: Access, Parking and Accessibility of Local Facilities**

Proposals for development should ensure that:-

- any new highways are designed and constructed in accordance with the Manual for Streets and include operational and non-operational parking provisions according to adopted standards set out in CSS Wales – Wales Parking Standards, and the land use, density and location proposed; and the access needs and mobility requirements of all sections of the community, particularly those with special needs and disabilities, are met.

Should it be proposed to use reduced standards of highway design or construction, the proposal must be fully explained and justified.

**Policy TB12: Freight Traffic**

Subject to detailed planning matters, favourable consideration will be given to proposals that involve the movement of goods and raw materials by rail rather than road. Opportunities to increase the potential of the Cwmbargoed railhead as a freight transfer /distribution facility will be supported.