



Planning Application for the Retention of Existing Electricity  
Generating Infrastructure, and the Replacement of an Electricity  
Generating Engine with a Storage Battery.

Biffa Waste Services, Kilsby Landfill Site, Daventry Road, Ashby St  
Ledgers CV23 8YX

Planning Statement

April 2022



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## Drawings

- Drawing K3032100: Site Location Plan
- Drawing K3032200: Planning Application Boundary & Land under Applicants Control.
- Drawing K3032300: Existing Elevations to Gas Compound
- Drawing K3032400: Proposed Site Elevations
- Drawing K3032500: Existing Site Layout
- Drawing K3032600: Proposed Site Layout

## 1. Introduction

- 1.1 Biffa are applying to Northamptonshire County Council for planning permission to regularise the continued use of one of two gas engines at the restored Kilsby Landfill site and to replace that engine with a new containerised battery once it becomes unviable.
- 1.2 The planning application has been submitted via the Planning Portal under reference PP-11204485 and includes the following documents:
- Planning Application Forms and Certificates.
  - Drawing K3032100: Site Location Plan
  - Drawing K3032200: Application Boundary
  - Drawing K3032300: Existing Elevations to Gas Compound
  - Drawing K3032400: Proposed Site Elevations
  - Drawing K3032500: Existing Site Layout
  - Drawing K3032600: Proposed Site Layout
  - This Supporting Statement
- 1.3 Planning permission DA/97/1083c dated 12th February 1998 for the installation of 1.0w of generation capacity and a gas flare at Kilsby expired on 31st January 2020 although for environmental control purposes the engine is still operational. The second engine at the site (which is subject to a separate, permanent consent) also continues to generate electricity for export to grid as part of the site environmental control measures.
- 1.4 Ultimately, replacing one of the existing gas engines with a battery will ensure the full potential of the grid connection at the site is realised as landfill gas production, and electricity generation from that landfill gas, declines.
- 1.5 Battery storage technology has advanced significantly in recent years and is expected to play a key role in the UK's energy system ensuring the provision of a constant supply of electricity and levelling out peaks and troughs (see Section 6). Batteries can export electricity to meet demand when renewable sources such as wind and solar are under producing and can store energy from the grid when there is over production from these sources.
- 1.6 The UK has the largest installed capacity of offshore wind in the world, but the ability to capture this energy and purposefully deploy it can increase its value by increasing production and potentially reducing costs. Intelligent battery software uses algorithms to coordinate energy production and computerised control systems are used to decide

when to keep the energy in reserve or release it to the grid. Energy is released from the battery storage system during times of peak demand, keeping costs down and electricity flowing.

- 1.7 This supporting statement includes a description of the application site, a brief planning history, consideration of relevant National and Local Planning Policy, discussion of the Government position on battery storage, a description of the proposed development, and an assessment of the potential environmental effects of the development.

## 2. Site Location and Description

- 2.1 The application site is located within the curtilage of the former Kilsby Landfill Site approximately 1.5km south of the village of Kilsby and 7km north of Daventry in Northamptonshire (see Drawing number K3032100).
- 2.2 The site is located in a rural setting. Access is from the A361 Daventry Road via the hard surfaced internal road that served the landfill and the composting facility and which is now used for maintenance and monitoring on the landfill and in the environmental management compound.
- 2.3 The planning application area and land under the control of the applicant is shown on Drawing number K3032200. The application area is 282sqm.
- 2.4 The application site comprises part of the electricity generating compound associated with the now restored landfill site. The overall compound houses two generating engines, two gas flares and associated equipment all surrounded by a palisade fence. This application applies to only one of the gas engines.
- 2.5 The site is surrounded on all sides by restored landfill. The internal access road to the compound passes to the north of the compound. The internal access also serves the Kilsby green waste composting facility.
- 2.6 The site is remote from occupied properties. The closest property is Grove Farm House and associated outbuildings located approximately 150m to the northeast. These buildings are owned by Biffa and are unoccupied. There are no occupied properties within a radius of approximately 750m of the perimeter of the application site. There are no public footpaths close to the boundary of the application site.

### 3. Planning History

- 3.1 The Kilsby site has a long history of waste related uses. A number of planning permissions for landfill have been granted, the most recent of which expired on 31st March 2009 (DA/2008/0845). The landfill site has not accepted any controlled wastes since that date and is now restored.
- 3.2 The site has also been used for green waste composting in accordance with three planning permissions referenced DA/99/023C and DA/01/176c (expired on 31st December 2009) and DA/2014/0510 which is a permanent consent.
- 3.3 Two consents for electricity generation have been granted at the site:
- Planning permission DA/97/1083c dated 12<sup>th</sup> February 1998 for the installation of 1.0mw of generation capacity and a gas flare. This planning consent expired on 31<sup>st</sup> January 2020 although for environmental control purposes the engine is still intermittently operational.
  - Planning permission DA/2008/0965 dated 3<sup>rd</sup> November 2008 for and extension to the generation compound with the provision of an additional engine, two gas flares and associated equipment.
- This application only relates to the area covered by planning permission DA/97/1083c.
- 3.4 The Kilsby site has the benefit of an Environmental Permit number EAWML 73018.

## 4. Proposed Development

- 4.1 The existing generating engine converts landfill gas collected from the adjacent and restored Kilsby landfill into electricity for export to grid. At maximum operation, the engine generated 1.0MW but as landfill gas production has declined, generation has also reduced. The engine is now used as a backup for the newer second engine and only operates when the second engine is being maintained or shuts down. Any gas that cannot be used for generation engine is safely flared.
- 4.2 To make best use of the grid connection at the site it is intended that, once the current engine is no longer needed it will be removed from site and replaced with a battery.
- 4.3 Once the gas engine becomes unviable to operate, then the containerised electricity engine will be replaced with a new container of similar dimensions that will house a large battery. The location of the engine that will be replaced is shown on drawing no. K3032500. The engine will only be removed and replaced with the battery container once the engine is no longer needed as part of the site landfill gas management system.
- 4.4 A battery is an electrochemical device, containing one or more electrochemical cells, which supplies electrical energy. A secondary (or rechargeable) battery (as proposed here) is a reversible device that converts electrochemical energy to electrical energy and vice versa.
- 4.5 The existing layout of the site and elevations are shown on drawing K3032300. The proposed layout and elevations are shown on drawing number K3032400.
- 4.6 The new container will be the same size and will be similar in colour the container removed from the site. The container will be dropped onto the concrete base vacated by the removed container.
- 4.7 The new containerised battery will be accessed via the existing site track that leads from the A361 to the generating compound and the composting facility.
- 4.8 The battery will be operated remotely and will be available 24/7 but may only operate for a small number of hours per day. The battery will import or export electricity to the grid dependant on demands from the national grid. There will be infrequent visits for maintenance by small vans.

## 5. National and Local Planning Policy

### 5.1 National Policy

5.1.1 The National Planning Policy Framework (NPPF), July 2021 forms the national planning policy and is a material consideration in planning decisions. It seeks to support the requirement for sustainable development via the planning system whereby the “presumption in favour of sustainable development” forms the overarching role.

5.1.2 In terms of decision making the framework means:

- c) *“Approving development proposals that accord with an up-to-date development plan without delay; or*
- d) *Where there are no relevant development plan policies, or the policies which are most important for determining the application are out of date, granting permission unless:*
  - I. *The application of policies in this Framework that protect areas or assets of particular importance provides a clear reason for refusing the development proposed; or*
  - II. *Any adverse impacts of doing so would significantly and demonstrably outweigh the benefits, when assessed against the policies in this Framework taken as a whole.”*

5.1.3 Paragraph 152 of the NPPF identifies that the Planning System should support the transition of a low carbon future including supporting renewable and low carbon energy and associated infrastructure.

5.1.4 Paragraph 158 requires that planning authorities, when determine applications for renewable and low carbon development should:

- “(a) not require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and*
- (b) approve the application if its impacts are (or can be made) acceptable....”.*

5.1.5 On 18<sup>th</sup> June 2015 the Department of Communities and Local Government (DCLG) published online Planning Guidance on Renewable and Low Carbon Energy. Whilst principally focused on planning issues around wind turbines Paragraph 1 of the guidance states:

*“Increasing the amount of energy from renewable and low carbon technologies will help to make sure the UK has a secure energy supply, reduce greenhouse gas emissions to slow down climate change and stimulate investment in new jobs and businesses. Planning has an important role in the delivery of new renewable and low carbon energy infrastructure in locations where the local environmental impact is acceptable.”*

## 5.2 Local Policy

5.2.1 Section 38 of the Planning and Compulsory Purchase Act 2004 requires planning applications to be determined in accordance with the provisions of the Development Plan unless material considerations indicate otherwise.

5.2.2 The Development Plan for this application comprises:

- Northamptonshire Minerals and Waste Local Plan (July 2017)
- West Northamptonshire Joint Core Strategy (part 1) (December 2014)
- West Northamptonshire Joint Core Strategy Local Plan (Part 1) Review of Policies (December 2019)
- Settlements and Countryside Local Plan (Part 2) for Daventry District 2011-2029 (February 2020)

5.2.3 Part of the vision set out in the Northamptonshire Minerals and Waste Local Plan (NMWLP) is “...through growth and development [to create] sustainable communities...” (para 3.3) and this is reflected in Objective 1 which seeks to “support the development of sustainable communities in Northamptonshire by facilitating the provision of infrastructure, facilities and services...”

5.2.4 The continued use of landfill gas at the Kilsby site to generate electricity and the ultimate replacement of that engine with a battery to continue the provision of renewable energy to the grid meets with the vision and objective set out above. The Kilsby landfill gas generation compound is identified as an existing site within the County (Appendix Table 4a).

5.2.5 The West Northamptonshire Joint Core Strategy (part 1) (December 2014) as reviewed (December 2019) sets out the long-term vision and objectives for the whole of West Northamptonshire including Daventry, Northampton and South Northamptonshire. Policy SA (paragraph 5.4) sets out the presumption in favour of sustainable development. Further detail on sustainable development principles is included in Policy

S10 (para 5.9) where Part (g) states that development should “*maximise the generation of its energy needs from decentralised and renewable or low carbon sources*”.

- 5.2.6 Objective 1 of the Plan (para 4.63) includes “*encouraging renewable energy production in appropriate locations*”. The continued use of landfill gas at Kilsby to generate electricity and the replacement of that engine with a battery to continue the provision of renewable energy to the grid is sustainable and meets with policies SA and S10 and Objective 1.
- 5.2.7 The Settlements and Countryside Local Plan (Part 2) for Daventry District (February 2020) seeks to shape the future of Daventry District, Objective 1 (para 3.1.03) encourages “*...renewable energy production in appropriate locations...*”.
- 5.2.8 Section 9.6 of the plan on renewable energies and local carbon development supports the transition to a low carbon future and the encouragement of the use of renewable resources. Policy ENV9 states that:

*“Proposals for renewable energy development will be supported where, with appropriate mitigation, they do not have an adverse impact on:*

- I. Form, character and setting of an existing settlement;*
- II. Heritage assets and in particular on views important to their setting;*
- III. Biodiversity and ecology;*
- IV. The landscape including the cumulative impact with existing or approved renewable energy development;*
- V. Residential amenity; and*
- VI. The enjoyment of the open countryside including public rights of way.”*

As the generation compound is already operational and there would be no additional disturbance or intensification of the use as a result of this proposal it is concluded that the development meets the requirements of this policy.

## 6. National Policy Background on battery storage

6.1 The relevant national policy is provided by the overarching National Policy Statement (NPS) for Energy (EN-1) published in 2011.

6.2 Paragraph 2.2.20 of EN-1 is concerned with national security of energy supply and states:

*“It is critical that the UK continues to have secure and reliable supplies of electricity as we make the transition to a low carbon economy. To manage the risks to achieving security of supply we need sufficient electricity capacity (including a greater proportion of low carbon generation) to meet demand at all times. Electricity cannot be stored so demand for it must be simultaneously and continuously met by its supply. This requires a safety margin of spare capacity to accommodate unforeseen fluctuations in supply or demand.”*

Whilst the policy includes a shift towards low carbon generation, it has to be acknowledged that the contribution of renewable technologies, in particular solar and wind, is weather dependent and therefore unpredictable.

6.3 Paragraph 3.3.3 of the statement points out:

*“The larger the difference between available capacity and demand (i.e. the larger the safety margin), the more resilient the system will be in dealing with unexpected events, and consequently the lower the risk of a supply interruption. This helps to protect businesses and consumers, including vulnerable households, from rising and volatile prices and, eventually, from physical interruptions to supplies that might impact on essential services.”*

6.4 The proposed development conforms to national energy policy and will support a more resilient energy system that should deal with the unpredictable nature of some renewables ensuring security of supply.

6.5 The Energy Act 2013 is the primary legislation that enables Electricity Market Reform (EMR), including the implementation of the Capacity Market (CM). The delivery of EMR is a key Government objective to secure energy supply on the way to a sustainable low carbon future. The government has established the CM with the intention of incentivising investment in more sustainable, low-carbon electricity capacity at the least cost for energy consumers. These principles are embodied in the Green Paper “Building Our Industrial Strategy” (January 2017).

- 6.6 In June 2016, the Energy and Climate Change Committee published their Low Carbon Network Infrastructure Report. This recommended the rapid roll-out of battery storage in order to support the development of a low carbon economy. The purpose of battery storage, such as that proposed here is to contribute to this national programme providing cost effective, flexible energy during peak electricity periods. It will also provide local energy security as, unlike national energy generation, it will feed electricity into the local electricity network at the point of need.
- 6.7 Building storage capacity together with smart use of transmission and distribution systems are therefore now a priority for UK Government. Westminster's Modern Industrial Strategy published in December 2017 puts energy efficiency and storage at its heart, seeing new technological development key to the country's ambitions in global markets.
- 6.8 In July 2020 the Government announced it was to relax planning legislation to make it easier to construct large batteries to store renewable energy. As part of the announcement Government acknowledged that flexible technologies, like batteries, will form part of the UK's smarter electricity grid, supporting the integration of more low-carbon power, heat, and transport technologies, which it is estimated could save the UK energy system up to £40 billion by 2050
- 6.9 Electricity storage is already being deployed across the UK and in July 2020 the Government estimated approximately 4GW of storage was in the planning system. National Grid's 2021 Future Energy Scenarios (FES) predicts that by 2030 as much as 13GW of new electricity storage could be required to help balance periods of high and low renewable output.
- 6.10 The Government has a challenging and critical set of objectives in the energy sector: ensuring security of energy supply, keeping bills as low as possible for households and businesses, and decarbonising cost effectively and in a way that enables us to reap the economic benefits of this transition. As part of this, the Government's Clean Growth Strategy sets out a suite of policies to decarbonise the economy, of which smart energy is a key element. The proposed development will contribute, albeit in a small way, to achieving the Government's objectives.

## 7. Potential Environmental Effects:

### 7.1 Traffic

- 7.1.1 There would be no increase in traffic as a result of the proposed development. The current gas compound is monitored remotely and visits to the site are only made when maintenance is required, or the system notifies a fault. This will be the same when the engine is replaced with a battery. The system will operate remotely, and it will only be necessary to visit site occasionally and in a small van.

### 7.2 Noise

- 7.2.1 The main source of noise from the current engine is from the exhaust system. The compound is remote from residential property and does not result in any noise disturbance outside or the site boundary. The proposed battery will not include an exhaust. The only source of noise will be from a fan used to cool the battery when necessary. The noise from the fan will be much lower than that from the current engine exhaust and the potential for noise nuisance is negligible.

### 7.3 Visual and Landscape Impact

- 7.3.1 The electricity generating compound is already operational. The location is remote from property and is not visible from outside of the Kilsby site. The replacement of one containerised engine with one containerised battery will not result in any additional visual or landscape impact.

## 8. Conclusions

- 8.1 Biffa is applying for planning permission to regularise the use of one of two electricity generating engines at the restored Kilsby Landfill Site and to replace it with a containerised battery when conditions are suitable.
- 8.2 The continued use of the gas engine and its ultimate replacement with a battery will ensure the site continues to contribute to the production of renewable energy in a sustainable way.
- 8.3 The proposed development has been demonstrated to accord with relevant national and local policies on energy and planning.
- 8.4 There would be no unacceptable adverse environmental effects as a result of the proposed development.