



Paul Butler Associates
Planning, Development & Heritage Consultants

Ameresco Ltd

Cellarhead BESS Facility

Soil Movement: Volume Analysis

17 October 2025

Paul Butler Associates, 31 Blackfriars Road, Salford, Manchester M3 7AQ
t. 0161 835 3530 | e. pba@paulbutlerassociates.co.uk | w. www.paulbutlerassociates.co.uk

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Prepared by:	Julian Austin BSc MPLAN MRTPI	Director	09.10.2025
Checked by:	David Tye BSc MTPI MRTPI	Senior Director	10.10.2025
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1. Introduction

- 1.1 This report has been prepared by Paul Butler Associates on behalf of Ameresco Ltd and is submitted in support of an application to discharge condition 15 of SMD/2022/0444 which relates to the submission of a Materials Management Plan (MMP). The MMP (RSK, October 2025) that is also submitted in support of this discharge of condition application should therefore be read in conjunction with this document.
- 1.2 This report provides an analysis of the approved position in respect of soil movement and compares that to what is proposed now. The report has been prepared to demonstrate that the amount of soil to be managed from the site is commensurate with that approved under SMD/2022/0444. This report examines the approved planning documents, committee reports and decision notice associated with SMD/2022/0444 to establish a robust and evidenced position on what was previously approved by Staffordshire Moorlands District Council. The figures expressed in this report have been provided by Ameresco Ltd and are based on detailed analysis by Ameresco of the relevant drawings.

2. Planning Department position on SMD/2022/0444

- 2.1 This section summarises what is understood to be the position of SMDC planning department in respect of the amount of soil movement approved under SMD/2022/0444.
- 2.2 The correspondence referenced below is included at Appendix 1 of this report. The LPA were approached by Paul Butler Associates and Ameresco Ltd to ascertain further information regarding their position on what was approved under SMD/2022/0444.

	Summary of Correspondence	Appendix Ref
1	On 22.07.25 PBA asked officers to evidence the documents which demonstrate that the amount of soil now to be moved was much greater than originally approved.	A1
2	In response (22.07.25), the planning officer referred to the Late Representations report presented to committee (Dec 2022) as their position on this. The report states only the following: not want these facilities <u>Further clarification from the applicant on the cut and fill operation</u> The consulting engineers have advised there is approx. 14 642 m³ of scrape to be removed after cut and fill, the intention is for this to be used to create the extended bund on the eastern field (which was not included in this calculation) and the remainder used on other land owned by the landowner. However the final detail of this will be secured to the LPA's satisfaction by the Materials Management Plan condition. Page 4 Note: the above does not indicate where this 'scrape' has come from. It also does not indicate how much of the 14,642m³ is to be used on site or on other land owned by the landowner. It refers to another calculation but no information regarding this calculation is available.	A2
3	By way of response, PBA replied as follows on 22.07.25: <i>We've seen that and it contains only one figure, what about the rest...</i> 1. <i>What is the volume of soil relating to the excavation of the BESS facility that you believe was approved?</i>	A3

	Summary of Correspondence	Appendix Ref
	2. <i>What is the volume of soil to be used in the bund formations that you believe was approved?</i> 3. <i>Following the above, what is the volume of soil that is surplus that may then have to be deposited elsewhere in the agricultural unit – what figure do you believe was approved?</i> <i>Based on our conversations to date, you have formed a position based on your 'expectations' of the above. Therefore we would expect you to be able to identify the documents containing the figures which back up your expectation.</i>	
4	The planning officer subsequently confirmed by email that: <i>The above was provided in an answer to the question posed to the Agent as to whether the earthworks would be a neutral operation or would involve the importation or export of material?</i> It would seem that the response in (2) above does not answer the question posed: It does not confirm whether the cut and fill is neutral and refers to other calculations which are not provided. It does not say how much of the additional volume is to be used on site and how much will go off site.	A4

Table 2.1: LPA Correspondence

- 2.3 Further analysis of the above and relevant documents approved under SMD/2022/044 are provided in the following section.

3. Volume Analysis: What is Factually Approved in SMD/2022/0444

3.1 The following points are of importance.

1. Committee Recommendation for Approval without knowledge of whether neutral operation

3.2 At the point of querying the extent of soil movement with the original planning agent during the assessment of SMD/2022/04444, the planning department had written the application up for a recommendation for approval. The committee report states:

The proposal involves significant excavation of the compound area. This is to depths of between 2 metres and 8 metres. The excavated material will be used to create the bunding. It is not clear if this is a neutral operation and clarification is being sought from the applicant but in any event the operation could be controlled through conditions.

3.3 Therefore, whether the construction of the facility is a neutral operation or not and without knowing the extent of soil movement the planning department were satisfied that that the issue could be controlled by condition.

2. Content of Approved Document: Site Layout Plan 114 F

3.4 Prior to writing the committee report, the only other submitted document which contained any information in respect of the amount of soil to be excavated and used in the bunds is shown on Site Layout Plan Rev F. This document is included on the original decision notice and therefore is an approved planning document (whereas the late representations report is not).

3.5 The plan states the following:

1. The area of the BESS facility to be excavated to minus 2 metres is **23,478m²**.
2. The bund minimum area is **13,500m²**.

[note the figure in 1 would provide a volume (m³) figure of 46,956m³]

3.6 Evidently, before volume is even considered, it is clear that there is a significant difference between the amount to be cut out of the ground and the amount to be re-used in the bunds.

3.7 The agent's explanation in the late representation to committee states a figure of 14,642m³ of 'scrape'. The planning department did not query where this scrape figure had come from, nor how it relates to the figures on Site Plan Rev F. The agent is potentially saying that the bund minimum area did not include the eastern bund. Even if the scrape figure is to be accepted without any scrutiny, based on the approved documents there would still be a surplus amount of soil to be dealt with as identified on approved plan Site Rev F (an approximate figure is provided in the next section – 3.9 onwards).

Analysis of Approved Site Plan Rev F

3.8 Table 3.1 below details the excavation and bund formation figures that can be inferred through analysis of Approved Site Plan Rev F.

[continued over]

Type of Work	Amount
<u>Excavation</u>	
Excavated Area down to 2 metres (as per Site Plan Rev F)	46,956m ³
Substation / Transformer Area (no allowance in above figure, this is identified on approved section drawings as being 4 and 6 metres lower respectively)	9,660m ³
Ramp down to / substation area	673m ³
Sloped (batter) 2 metre to eastern side (165m*(6*2)/2)	990m ³
Topsoil removal prior to bund formation (approx.)	4,050m ³
TOTAL CUT (approx.)	62,329m³
<u>Bund Formation / Landscaping</u>	
Bund minimum as per Site Plan Rev F (approximate figure based on triangulation of bund gives a volume of 13,500m ³)	13,500m ³
Scrape Figure reported at committee (this figure should be used with caution due to, the lack of context and detail about how much is to be used on site)	14,642m ³
TOTAL FILL (approx.)	28,142m³

Table 3.1: Analysis of Site Plan Rev F (approximated total figures).

- 3.9 Based on the above figures, after excavation and re-use in the bunds there is a minimum of **34,187m³** of soil left over. This figure could be higher as the late representation to committee does not explain how much of the figure specified in that correspondence is to be used on site and it suggests that not all of it actually will.
- 3.10 With the exception of the top soil excavation figure of 4,050m³, all of the other figures above could have been approximated through scrutiny of approved Site Plan Rev F, the proposed section drawings and the answer in the late representations report. Even if the topsoil figure is removed, this would equate to a minimum excavation of 58,279m³ (the topsoil removal prior to bund formation is a necessary step in the bund formation and has been included here for parity with the figures shown under this application in the next section).
- 3.11 In any event, it is reasonable to conclude that the approved excavation is between 58,279 and 62,329m³.

- 3.12 As is noted in the summary of correspondence in table 2.1, officers were requested to provide further information regarding the above volumes and did not respond with any detailed evidence.
- 3.13 It is evident that the application was recommended with an approval to committee without detail of whether the excavation / bund formation was a neutral operation and that regardless of the extent of soil movement and management that may be required, the planning department were satisfied that this could be dealt with via a Materials Management Plan at the condition discharge stage.

4. Volume Analysis: What is Proposed in Discharge of Condition 15

- 4.1 Table 4.1 below details the movement and management of soil required to implement the development which has already been consented by the Council.

Type of Work	Amount
<u>Excavation</u>	
Excavation (based on a 2.3m deep BESS area)	48,900m ³
Substation / GIS area	12,790m ³
Road to Substation area	1,050m ³
Site batter to east and south	2,300m ³
Bund top soil strip	6,200m ³
TOTAL CUT	71,240m³
<u>Fill: Bund Formation / Landscaping</u>	
Bund Formation and Landscaping	35,675m ³
TOTAL FILL	35,565m³

Table 4.1: MMP soil movement summary.

- 4.2 The above table allows for a direct comparison between what was approved under planning application SMD/2022/0444 and what is proposed now¹.
- 4.3 The above figures show that the total excavation of **71,240m³** compares to **62,329m³** in the original planning application. This difference is attributed to the increased substation excavation area and slight increase in BESS facility (approved via NMA/2024/0027) and moreover that detailed design work is now allowing detailed figures to be provided. The figures that were provided in the original application are very basic and no specific detail in respect of construction processes and volumes was provided in that application.

¹ The figures in tables 3.1 and 4.1 do not include the drainage attenuation pond. The sizing of the pond as approved is virtually the same size as that shown in the original planning application – approximately 2000m². For reference the volume for the pond is included in the MMP document.

- 4.4 The above figures in table 4.1 show that there is a residual requirement in excess of 30,000m³ to be managed off site under both SMD/2022/0444 and the position now. The figure attributed to the original application is approximately **34,187m³** compared to **35,565m³** of soil left over following the comparable on site construction / engineering processes for the current scheme. Both of these figures do not include the drainage attenuation pond, which would increase both figures. This total residual requirement of **38,775m³** is to be dealt with as per the submitted Materials Management Plan via local deposition within the same agricultural holding.
- 4.5 Evidently and as should be expected, there is not a significant difference in the amount of material to be dealt with now via the MMP when compared to what was actually approved.

5. Summary and Conclusions

- 5.1 This report has been prepared by Paul Butler Associates on behalf of Ameresco Ltd and is submitted in support of an application to discharge condition 15 of SMD/2022/0444 which relates to the submission of a Materials Management Plan (MMP). An MMP (RSK, October 2025) is submitted in support of the application.
- 5.2 This report provides an analysis of the approved position in respect of soil movement and compares that to the current proposal (which is the result of slight amendments via Non Material Amendment applications). This report examines the approved planning documents, committee reports and decision notice associated with SMD/2022/0444 to establish a robust and evidenced position on what was previously approved by Staffordshire Moorlands District Council.
- 5.3 The report finds the following:
- A lack of detail was provided in application SMD/2022/0444 regarding volumes and soil movement. The figure provided at the late stage of the application appear vague and unsubstantiated.
 - Notwithstanding, it would have been evident that the amount to be excavated was significantly greater than the amount to be re-used in the bunds.
 - The planning department were also supportive of the scheme in recommending approval without knowledge of whether it was a neutral operation or not – the recommendation to committee states that “in any event the operation could be controlled by condition”.
 - The agent for SMD/2022/0444 in their response to the late request prior to planning committee, suggests that some off site deposition will be required.

- Analysis of planning application SMD/2022/0444 show that there would have been 34,187m³ to be deposited off site. The same analysis of the current position shows 35,565m³ as being surplus.
- As should be expected given the site proposals have not drastically changed since 2022, the figures are broadly similar.

5.4 For the LPA to adopt a position that the volume of material to be managed via on site and off site processes is different to what they were expecting or different to the scope of what was approved previously would be in the applicant's view unjustified.

5.5 The proposed Materials Management Plan is therefore in line with the proposals as approved in December 2022.

Appendix 1: Correspondence with LPA

Julian Austin BSc (Hons) MPLAN MRTPI
Director

Paul Butler Associates, 31 Blackfriars Road, Salford, Manchester M3 7AQ
t. 0161 835 3530 | m. 07398093948 | e. julian@paulbutlerassociates.co.uk | w. www.paulbutlerassociates.co.uk

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From: Jane Curley
Sent: 22 July 2025 14:51
To: Julian Austin
Subject: RE: DOC/2024/0069

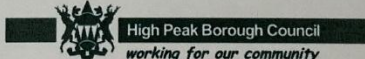
A2

Dear Julian

Thank you for the email. I attach a copy of the Late representations report presented to Committee (Dec 2022) where the information can be found but yes it came from the Agent acting for the applicant

Jane

Jane Curley Principal Planning Officer
Planning
High Peak Borough Council and Staffordshire Moorlands District Council
Mob: **07794 768397**
www.highpeak.gov.uk | Follow HPBC on X (Formerly Twitter) | Facebook
www.staffsmoorlands.gov.uk | Follow SMDC on X (Formerly Twitter) | Facebook



From: Julian Austin <julian@paulbutlerassociates.co.uk>
Sent: 22 July 2025 10:19
To: Jane Curley <jane.curley@staffsmoorlands.gov.uk>; 'Shepherd-Evans, Colin' <cshepherddevans@ameresco.com>; Ben Haywood <Ben.Haywood@highpeak.gov.uk>
Subject: RE: DOC/2024/0069

A1

Jane

We are reviewing the below. You have referred previously to the amount of soil volume to be moved being more than you were expecting. Please can you provide the documents / emails which provide these volumes? I understand this may be an email that was sent to you prior to the committee in Dec 2022?

Please can you provide this today.

Julian Austin

From: Jane Curley <jane.curley@staffsmoorlands.gov.uk>
Sent: 24 July 2025 18:02
To: Julian Austin; Shepherd-Evans, Colin
Subject: RE: DOC/2024/0069

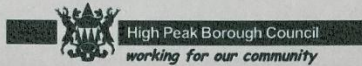
A4

Dear Julian and Colin

I'm very sorry for the delay. It's been a very busy week with Ben being off. The information provided to us in terms of anticipated surplus material was that relayed to the Members on the Late Representation. That information was provided in answer to the question posed to the Agent as to whether the earthworks would be a neutral operation or would involve the importation or export of material.

Jane

Jane Curley Principal Planning Officer
Planning
High Peak Borough Council and Staffordshire Moorlands District Council
Mob: **07794 768397**
www.highpeak.gov.uk | Follow HPBC on X (Formerly Twitter) | Facebook
www.staffsmoorlands.gov.uk | Follow SMDC on X (Formerly Twitter) | Facebook



From: Julian Austin
Sent: 22 July 2025 15:02
To: Jane Curley ; Haywood, Ben (SMDC)
Cc: 'Shepherd-Evans, Colin' ; Squire, Matt
Subject: RE: DOC/2024/0069

A3

Jane

We've seen that and it contains only one figure, what about the rest...

1. What is the volume of soil relating to the excavation of the BESS facility that you believe was approved?
2. What is the volume of soil to be used in the bund formations that you believe was approved?
3. Following the above, what is the volume of soil that is surplus that may then have to be deposited elsewhere in the agricultural unit – what figure do you believe was approved?

Based on our conversations to date, you have formed a position based on your 'expectations' of the above. Therefore we would expect you to be able to identify the documents containing the figures which back up your expectation.

Regards

Julian