

PITKEVY BESS

Landscape Management and Aftercare Plan
Tag Energy
October 2023



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Document history

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0	Pitkevy BESS: Landscape conditions discharge report	RF	DL	DL	20/04/2023		
01	Updated to reflect revised Landscape Planting Plans	CC	DP	DP	30/10/2023		
02	Appendix 2 updated to show revised Landscape GA & Planting Plans-03	CC	DP	DP	13/11/2023		
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1 INTRODUCTION

1.1 Overview

- 1.1.1 The following report has been prepared with respect to the conditional permission of planning application 21/02661/FULL (Battery storage facility, compound, meter building, fencing, security cameras, access track and new planting) at Pitkevy Farm, Leslie, Glenrothes, Fife KY6 3HD.
- 1.1.2 Stephenson Halliday was appointed by TagEnergy Ltd to provide landscape services to discharge prescribed pre-commencement planning conditions 1 & 2 as detailed in the grant notice for the above listed development, dated 20th of January 2022. Conditions are as follows.
 - Condition 1: BEFORE ANY WORKS START ON SITE, a scheme of landscaping indicating the siting, numbers, species and heights (at time of planting) of all trees, shrubs and hedges to be planted, and the extent and profile of any areas of earth-mounding and the phasing of the site, shall be submitted for approval in writing by this Planning Authority. The scheme as approved shall be implemented within the first planting season following the completion or commissioning of the development, whichever is sooner.

Reason: In the interests of visual amenity and to ensure a satisfactory standard of local environmental quality.

• Condition 2: BEFORE ANY WORKS START ON SITE, details of the future management and aftercare of the proposed landscaping and planting shall be submitted for approval in writing by this Planning Authority. Thereafter the management and aftercare of the landscaping and planting shall be carried out in accordance with these approved details, unless otherwise agreed in writing by Fife Council as Planning Authority.

Reason: In the interests of visual amenity; to ensure that adequate measures are put in place to protect the landscaping and planting in the long term.

- 1.1.3 The Pitkevy BESS development consists of a series of converters, transformers, energy storage units enclosed in a fenced area, with a meter building and necessary ancillary infrastructure.
- 1.1.4 This document provides the basis for successful establishment and development of the required landscape mitigation and aftercare plan for the development. As such, this document may be subject to revision and amendment to ensure it remains fit for purpose.
- 1.1.5 References to the extent of landscape works illustrated on Stephenson Halliday Landscape Drawings are listed below:
 - 0538-SHRSK-XX-0XX-0DR-L-100-04
 - 0538-SHRSK-XX-0XX-0DR-L-101-04
 - 0538-SHRSK-XX-0XX-0DR-L-102-04



1.2 Landscape Context

- 1.2.1 The Site and associated property comprise a mix of agricultural fields (primarily arable, with some grazing lands) set on rolling hills with a predominantly southern aspect and forestry coupes. Field boundaries within the land ownership boundary, planning application boundary and surrounding landscape comprise a mix of hedgerows, shelterbelts, post and wire fences and dry stone walls which result in varying degrees of enclosure. There is an existing wind turbine on the property, approximately 50m to the north of the development site boundary.
- 1.2.2 The BESS area is to be enclosed and will be removed from arable use with a buffer between the enclosed area and the site boundary which is to be planted with screening vegetation, as detailed in the above listed drawings and within this report.
- 1.2.3 Although the Pitkevy property consists of rolling fields, some of which are on elevated ground overlooking areas to the south, the development site boundary is located on low ground in the southwestern corner of the property.
- 1.2.4 The wider landscape is an area which is influenced by arable farming land and is crossed by high voltage transmission pylons. These pylons, and other services within the site boundary, influence the location of mitigation and enhancement planting.

1.3 Overall Vision

- 1.3.1 The aim of this landscape management and aftercare plan is to discharge prescribed pre commencement planning conditions 1 & 2 as stated above in section 1.1 by:
 - Providing details of a planting scheme that is appropriate for screening views to the development in order to mitigate the impact it has on the receiving landscape;
 - In drawn form, provide the location, size and amount of planting to be implemented on site; and,
 - Provide sufficient information for the successful implementation and management of the planting scheme so that it matures efficiently.
- 1.3.2 The landscape proposal aims are fundamental in seeking to aesthetically integrate the site, by providing woodland shrub and trees to wrap and screen the development. Such planting is required to align with existing vegetation found in the surrounding environments in order to aid integration and align with local planning and planting recommendations. Landscape proposals for the scheme have been designed regarding continuity with the wider landscape character.

1.4 Implementation Timeline

1.4.1 Construction of the BESS will involve the erection of perimeter fencing (compound fencing and stock fencing) and access tracks, followed by the installation of the modules and supporting electrical infrastructure.



- 1.4.2 It is anticipated that proposed mitigation planting would be implemented in the first appropriate planting / seeding season following construction of the BESS compound fence and stock fences.
- 1.4.3 it is encouraged that the vegetation be left in place for a minimum time period encompassing the operational life span of the BESS and beyond this period if possible should the BESS be decommissioned and removed.

Installation of planting as seen on drawings:

- Any clearance of vegetation will be carried out outside of the bird nesting period (September to February).
- Bare root trees: Winter (November to early March).
- Seeding of Tussock Grass Mix (in the first spring or autumn following the installation of the Bare root trees

2 MANAGEMENT

2.1 Overview

- 2.1.1 Management operations are defined as long term cyclical operations over a number of years such as the establishment of a multi-storey canopy structure to planting areas, or prescribed height and width of establishing hedgerows.
- 2.1.2 Management objectives are focused on achieving the overall vision set out below and facilitated by the maintenance operations described in section 3.
- 2.1.3 Replacement of planting losses during the defects rectification period will be covered by the contract requirements. Planting areas, which die or are damaged, as a result of environmental factors or poor design in the longer term will be addressed by redesign/replacement as appropriate, to achieve the vision set out in 1.3.1 and satisfy landscape planning condition establishment requirements where relevant.
- 2.1.4 The management plan initially sets out operations for a 5-year period following practical completion of the landscape works.

2.2 General Management Principles

- 2.2.1 All plant and seeding failures during the 5-year defects rectification period shall be replaced to original specification, or where appropriate, at a size to match adjacent planting.

 Replacement planting to be carried out by the Landscape Contractor commissioned to deliver the work, in the soonest available planting season.
- 2.2.2 Prior to planting, ground preparation includes weed removal and decompaction of soil as required.
- 2.2.3 300mm topsoil to be consistent with drawing notes



- 2.2.4 Specimens to be planted in moist, friable and non-waterlogged soil. Planting should take place between November and early March.
- 2.2.5 All plants to receive annual mulch application to a depth of 50 mm during September to November to suppress weed growth and retain moisture in soil. Care is to be taken to ensure mulch does not touch the stem of the plant.
- 2.2.6 Weeding will be targeted to minimise the impact on native ground flora.
- 2.2.7 The base of all plants will be kept weed free (minimum 500 mm radius) through hand weeding between April and October, inclusive.
- 2.2.8 Spot-treatment using herbicides is discouraged. However, it may be required for vigorous species and following approval from project Landscape Architect or Ecologist can be applied to up to 1m around each plant. Care will be taken to not allow herbicide drift. Herbicide treatment is to be carried out by a suitably qualified contractor.
- 2.2.9 Condition of new planting is to be regularly monitored and watered if deemed necessary.

 Contractor shall confirm whether an onsite water supply is available prior to commencement of watering.

2.3 Woodland Mix with Individual Trees

Management Objective

- 2.3.1 The new woodland planting is proposed to assist the integration of, and screening of views to the BESS, particularly from local roads and residents to the.
- 2.3.2 Individual trees are included to ensure a canopy of varying height at an early stage of establishment. Whilst increasing screening, it also provides a naturalistic appearance to the new planting as it settles into the wider landscape.
- 2.3.3 Woodland Mix with Individual Trees planting is split into 5 planting areas for ease of distribution and placement.
- 2.3.4 Woodland mix with individual trees is found on the Landscape Planting Plans:

0538-SHRSK-XX-0XX-0DR-L-100-04

0538-SHRSK-XX-0XX-0DR-L-101-04

0538-SHRSK-XX-0XX-0DR-L-102-04

Management Operations

- 2.3.5 All plants will be protected with a biodegradable guard and secured with a cane, with regular monitoring and adjusting of guards as required. Height of shrub guard sufficient to protect against grazing deer. Guards to be removed during year 5 (if necessary).
- 2.3.6 All bare-root planting should take place at the first suitable opportunity following construction, in the appropriate season (nominally November early March) when conditions are



conducive to plant establishment and growth. Planting should take place in moist, friable, non-frozen non-waterlogged soil

- 2.3.7 In the initial years after planting, trees and shrubs will need to be checked for damage or disease and to ensure they are firmed in, stakes are secure and not rubbing, and tree shelters should be adjusted to ensure they are secured and protecting the tree to ground level. Where damage has occurred, necessary pruning, adjustments or replacements should be carried out.
- 2.3.8 Individual Trees within Woodland Mix will receive the same management as 2.4.3 and protection as 2.4.4.
- 2.3.9 In year 5, following guard removal (if necessary), thinning of Woodland Mix (up to a maximum of 30% of total tree cover) will be implemented to maintain the health, vigour and appearance of trees. All works to be carried out by an Arboricultural Association approved Contractor in accordance with BS3998 2010 Tree Work.

Woodland mix species:

- Alnus glutinosa
- Betula pubescens
- Carpinus betulus
- Corylus avellana
- Ilex aquifolium
- Pinus sylvestris
- Quercus robur
- Sorbus aucuparia

Individual tree species:

- Alnus glutinosa
- Carpinus betulus
- Fagus sylvatica
- Quercus robur
- Tilia cordata



- 2.3.10 Long-term management, will include the following:
 - Check for trees affected by disease, removal and replacement of diseased trees;
 - prevent the encroachment of trees into areas designed to be clear for cable route safety;
 - prevent the encroachment of trees into areas designed to be seeded for enhanced Tussock grassland;
 - thinning regime to increase light levels by opening the canopy and improve the vertical structure of woodland areas. Thinning is recommended to be carried out every 5 years; and
 - tree species *Alnus glutinosa* and *Corylus avellana* respond well to coppicing. Coppicing should be carried out in groups so regrowth is not prevented by dense shading. If long term management is agreed with the landowner or in place for the proposed operational period of the BESS, trees suitable for coppicing can be subject to, commencing at year 7, a 7-year rotation from September to February. This will be beneficial to plant health, an array of wildlife and maintains a varied woodland structure. Trees could be coppiced again at year 14 and then every 7 years.

2.4 Tussock Grass Mix

Management Objective

- 2.4.1 The new Tussock Grass planting is proposed to complement the Woodland and Individual Tree planting and further assist the integration of the BESS into the surrounding landscape.
- 2.4.2 Tussock Grass mixtures are proposed for areas between Woodland screening planting areas 1-5 and the external fencing. The Tussock Grass mix is low maintenance and will need to be mown once every 2-3 years after fully established.
- 2.4.3 Tussock Grass Mix planting is found on the following drawings:
 - 0538-SHRSK-XX-0XX-0DR-L-100-04
 - 0538-SHRSK-XX-0XX-0DR-L-101-04
 - 0538-SHRSK-XX-0XX-0DR-L-102-04

Installation & Management Operations

- 2.4.4 To prepare a seed bed first remove weeds using repeated cultivation. Then plough or dig to bury the surface vegetation, harrow or rake to produce a medium tilth, and roll or tread to produce a firm surface.
- 2.4.5 Seed is best sown in the autumn or spring but can be sown at other times of the year if there is sufficient warmth and moisture. The seed must be surface sown and can be applied by machine or broadcast by hand. To get an even distribution and avoid running out, divide the



seed into two or more parts and sow in overlapping sections. Do not incorporate or cover the seed, but firm in with a roll, or by treading, to give good soil/seed contact.

2.4.6 Mow all plant growth (sown grasses and weeds) regularly to 40-60mm throughout the first growing season to prevent weeds smothering the slower-growing grasses. Remove cuttings if dense, more frequent and regular topping will minimise the amount of toppings produced each time so they can be left to disperse.

Tussock Grass mix species:

- Cynosurus cristatus Crested Dogstail
- Dactylis glomerata Cocksfoot
- Deschampsia cespitosa Tufted Hair-grass (w)
- Festuca rubra Red Fescue
- Schedonorus arundinaceus (Festuca arundinacea) Tall Fescue (w)
- Schedonorus pratensis Meadow Fescue
- 2.4.7 Once established, tussocky grassland requires minimal maintenance. Long-term management, will include the following:
 - Occasional spot treatment of unwanted perennial weeds (docks, thistles) as required by manual removal or approved herbicide use.
 - Cutting every 2-3 years to control any bramble and scrub in the area. For wildlife this cutting is best done on a rotational basis so that no more than half the area is cut in any one year leaving part as an undisturbed refuge.

3 MAINTENANCE & AFTERCARE

3.1 Overview

3.1.1 Maintenance operations are defined as regular activities required, such as grass cutting and weeding. The maintenance operations required to ensure satisfactory establishment of enhancement and mitigation planting is achieved are summarised below.

3.2 Monitoring for all Soft Landscape Works in first five years

- 3.2.1 The following details will be recorded for soft landscape works:
 - The date the activity took place;
 - sub-contractor that executed the activity;



- activity executed;
- necessary alterations to the programmed activity and why;
- any disturbance caused;
- photographic records capable of showing seasonal comparisons of vegetation composition and the success of management taken at designated sites starting from year 0, with photographs taken each year in midwinter and midsummer; and
- review activity carried out to identify appropriate future maintenance operations.

3.3 General Maintenance Principles

- 3.3.1 A maintenance programme for the 5-year aftercare period following completion of the soft landscape works is detailed in Appendix 1.
- 3.3.2 Generally, over the wildflower meadow and grassland areas:
 - Tidy up areas removing rubbish, litter etc. (or any potential hazard to grazing sheep);
 - control weeds in grassland (written approval from the appointed Landscape Clerk of Works shall be obtained before use of any pesticide/herbicide); and
 - monitoring and reporting.
- 3.3.3 In the 5-year period after planting, trees, shrubs and grasses will be checked for:
 - Damage or disease (where damage has occurred, necessary pruning, adjustments or replacements should be carried out). Control measures to be carried out to a programme that prevents re-occurrence and controls the spread of the problem;
 - ensure plants are firmed in;
 - stakes are secure and not rubbing;
 - tree shelters will be adjusted to ensure they are secured and protecting the tree to ground level;
 - mulch 50mm to be placed immediately following planting works and topped up as required to maintain a depth of 50mm throughout the 5 year period;
 - water trees, shrubs and grasses as necessary to maintain healthy growth;
 - on removal of stakes, the hole will be backfilled with lightly compacted soil.
- 3.3.4 Where necessary and following written approval from project Landscape Architect or Ecologist, persistent weeds can be controlled through spot treatment using a weed wiper with an approved glyphosate-based herbicide (i.e., Roundup or equivalent approved), applied in accordance with the manufacturer's recommendations in suitable weather



conditions. Care shall be taken to ensure herbicide does not damage trees and shrubs. Weed control operations shall be carried out by competent operators and in calm conditions to avoid drift of herbicide. Only non-residual herbicides approved for use near water bodies should be used on site.

3.3.5 All shrub guards and stakes will be removed at the end of year 5 (if necessary).

3.4 Aftercare from year 5

Woodland and Individual Trees

- 3.4.1 In year 5, following guard removal (if necessary), thinning of Woodland Mix (up to a maximum of 30% of total tree cover) will be implemented. Thinning will remove dominant trees that are shading out others and weak spindly trees that have not established well. This will allow space for remaining trees to grow into, although this action should not act to prevent the long-term ageing of larger tree species, such as oak.
- 3.4.2 Prescribed maintenance will aid the successful establishment of vegetation with good species diversity, health and once mature, maintenance will be focussed on preventing encroachment into grassland areas. Tree work to be carried out in accordance with BS 8545:2014 Trees: from nursery to independence in the landscape.

Tussock Grass Mix

3.4.3 Prescribed aftercare for Tussock Grass mix from year 5 onwards is to follow the maintenance practice set out in 2.4. In addition to this, further control measures detailed in 3.3.4 may be undertaken as required beyond year 5.



4 APPENDIX 1

4.1 5 YEAR LANDSCAPE MANAGEMENT AND MAINTENANCE SCHEDULE

- 4.1.1 The 5 Year Landscape management and maintenance schedule covers the proposed woodland mix with individual trees:
- 4.1.2 The schedule also includes recommendations for year 6-10 which can be applied throughout the operational period if long term management is agreed with the landowner and or developer.



		Required: Year 1 - 5				Recommended: Year 6 - 10					
Work item	Timing	1	2	3	4	5	6	7	8	9	10
Removal and replacement of diseased or dead plants.	As necessary, Dec to Mar	✓	✓	✓	✓	✓					
Treat pests and diseases including removal of dead, dying and diseased wood.	As necessary	✓	✓	√	✓	√	✓	√	√	√	✓
Check, adjust and replace stakes and ties (remove in year 5).	As necessary	3 visits	3 visits	3 visits	3 visits	1 visit					
Water to maintain healthy growth.	As necessary										
Check plants are firmly planted and firmed in.	As necessary										
Weed control by hand and herbicidal spot treatment if necessary and approved.	Apr to Oct (every 6 weeks)	4 visits	4 visits	3 visits	3 visits	2 visits	2 visits	2 visits			
Mowing of Tussock grass mix.	As necessary	4 visits	2 visits		1 visit		1 visit		1 visit		1 visit
Tree specific works to be carri	Tree specific works to be carried out by an Arboricultural Association approved contractor in accordance with BS3998 2010 Tree Work										
Apply 50mm of mulch	Sept to Nov	✓	✓	✓	✓	✓					
Pruning / remedial surgery.	As necessary, Sept to Feb	✓	✓	√	√	√	✓	✓	√	√	✓
Tree thinning (max of 30% of total tree cover at one time)	Sept to Feb					√					✓
Crown lifting	As necessary, Sept to Feb					√					✓
Coppicing of Alnus glutinosa and Corylus avellana.	Sept to Feb							√			
Tree condition survey	As necessary										✓
One third cut of top or either side to 2m.	As necessary. Sept to Feb	√	√	√	√	√	√	√	√	√	✓



5 APPENDIX 2

5.1 LANDSCAPE GA & PLANTING PLANS

5.1.1 The following drawings should be read in conjunction with this report and appendix 1: 5 Year Landscape Management and Maintenance Schedule:

0538-SHRSK-XX-0XX-0DR-L-100-04

0538-SHRSK-XX-0XX-0DR-L-101-04

0538-SHRSK-XX-0XX-0DR-L-102-04











