

**Reedie Farm Wind Turbines,
Kirriemuir:
Archaeological Mitigation**

Data Structure Report



by Callum Allsop

issued 30th May 2014

on behalf of Mr and Mrs Grant

RATHMELL 
ARCHAEOLOGY LTD

Quality Assurance

This report covers works which have been undertaken in keeping with the issued brief as modified by the agreed programme of works. The report has been prepared in keeping with the guidance of Rathmell Archaeology Limited on the preparation of reports. All works reported on within this document have been undertaken in keeping with the Institute for Archaeologists' Standards and Policy Statements and Code of Conduct.

Signed  Date30/05/2014....

In keeping with the procedure of Rathmell Archaeology Limited this document and its findings have been reviewed and agreed by an appropriate colleague:

Checked  Date30/05/2014.....

Copyright Rathmell Archaeology Limited. All rights reserved.

No part of this report may be copied or reproduced by any means without prior written permission from Rathmell Archaeology Limited. If you have received this report in error, please destroy all copies in your possession or control and notify Rathmell Archaeology Limited.

This report has been prepared for the exclusive use of the commissioning party and unless otherwise agreed in writing by Rathmell Archaeology Limited, no other party may use, make use of or rely on the contents of the report. No liability is accepted by Rathmell Archaeology Limited for any use of this report, other than the purposes for which it was originally prepared and provided.

Opinions and information provided in the report are on the basis of Rathmell Archaeology Limited using due skill, care and diligence in preparation of the same and no explicit warranty is provided as to their accuracy. It should be noted and it is expressly stated that no independent verification of any of the documents or information supplied to Rathmell Archaeology Limited has been made.

Contents

Introduction	3
Historical and Archaeological Background	3
Project Works	7
Findings	7
Discussion	12
Recommendations	12
Conclusion	12
References	13
Documentary	13
Cartographic	13
Appendix 1: Registers	14
Context Register	14
Photographic Register	14
Appendix 2: Discovery & Excavation in Scotland	17
Contact Details	18

Figures

Figure 1a: Extract from Roy’s Highland Military Survey (1747-52)	4
Figure 1b: Extract from Ainslie’s Map of the County of Forfar or Shire of Angus (1794)	4
Figure 2a: Extract from Thomson’s (1825) Northern Part of Angus Shire: Southern Part	5
Figure 2b: Extract from the 6-inch 1 st Edition Ordnance Survey (1865)	5
Figure 3a: Shot of trial pit 2 taken from the W.	8
Figure 3b: Shot of trial pit 5 taken from the E.	8
Figure 4a: Shot of Base A taken from the W.	9
Figure 4b: Shot of Base B taken from the W.	9
Figure 5a: Detail of N end of rubble-filled field drain in Base B taken from the N.....	10
Figure 5b: Trench leading to sub-station and demonstrating (001) and (002) in section (foreground of image).	10
Figure 6: Location of the turbine bases and cable trenching.	11

Introduction

1. This Data Structure Report has been prepared for Mr and Mrs Grant in support of the construction of two wind turbines at Reedie Farm, Kirriemuir, Angus (Planning Ref: 11/00267/Full). The archaeological works are designed to mitigate the impact on the archaeological remains within the development area to the agreement of Aberdeenshire Council Archaeology Service. Rathmell Archaeology Limited has been appointed by Mr and Mrs Grant to undertake the development and implementation of archaeological mitigation works.
2. Aberdeenshire Council Archaeology Service who advises Angus Council on archaeological matters has requested archaeological monitoring (Watching-brief Condition PAN 42, Para 35, SPP, SHEP) to manage the potential impact on archaeological remains. They have provided guidance on the structure of archaeological works required on this site during development. All works and reporting will comply with Aberdeenshire Council Archaeology Services *Standard for Archaeological Fieldwork*.

Historical and Archaeological Background

3. Reedie Farm (NO 35622 52159) is located 2.5 miles to the west of Kirriemuir on the southern side of the A296 Kirriemuir to Blairgowrie road with the development area located in a ploughed arable field a further 400m to the north-west of Reedie and to the north of the A296.
4. Regarding the development area and Kirriemuir, Timothy Pont's *Lower Angus and Perthshire east of the Tay* (1553-96) (not shown) records Kirriemuir as 'Kirk of Kellymoore' and also records Cairie Burn leaving Kirriemuir in a southeast direction. Studying current mapping, this would appear to be the burn that is fed by the Loch of Kinnordy. Within the development area nothing is recorded, however, the present day hamlet of Kinalty located to the south is depicted and there is also the possible recording of Lindertis Estate to the west of the development area, although both the spelling of the names are difficult to make out and so this cannot be a definitive conclusion.
5. Robert Gordon's *Anguss* (1636-52) (not shown) only depicts Kirriemuir, which he spells 'Killimoore' and nothing to the west covering the development area. Forfar and the Loch of Forfar, along with Glamis are recorded and located to the south east of Kirriemuir. The next survey by Robert Edward *Angusia Provincia Scotia Sive (The Shire of Angus)* (1678) (not shown) records nothing to the west of Kirriemuir covering the development area. With Edward's (1678) map there is some confusion as to the exact location of Kirriemuir. This is the first recording of Kinnordy spelt 'Kinnorde' and although not labelled, the Lock of Kinnordy with the south easterly course of Cairie Burn is recorded. However, Kirriemuir is not recorded but is labelled as 'Milltoun'.
6. Studying later surveys and current mapping, the topographical features of the Loch of Kinnordy and Cairie Burn, along with the settlement of Kinnordy, would support that the label 'Miltoun' is Kirriemuir. Edward (1678) also records a road leading out of 'Miltoun' to the south, and on current mapping this is likely to form the modern A298 and further supports the suggestion that 'Miltoun' is Kirriemuir. Herman Moll's *The Shire of Angus or Forfar* (1745) (not shown) depicts the exact same topographical features and settlements labelled and recorded by Edward (1678).
7. William Roy's *Military Survey of Scotland Highlands* (1747-52) (Figure 1a) continues with the recording of the Loch of Kinnordy and is the first to label it, although he provides the name as 'Loch of Kirriemuir'. The previously labelled 'Miltoun' has changed back to the spelling 'Killimoore' used by Gordon (1636-52). The road leaving Kirriemuir to the south is also recorded and further supports the suggestion that this is the settlement recorded by Edward (1678). There is a further road marked leaving Kirriemuir in a south westerly direction which forms the course of the present day A296 Kirriemuir to Blairgowrie.



Figure 1a: Extract from Roy's Highland Military Survey (1747-52)

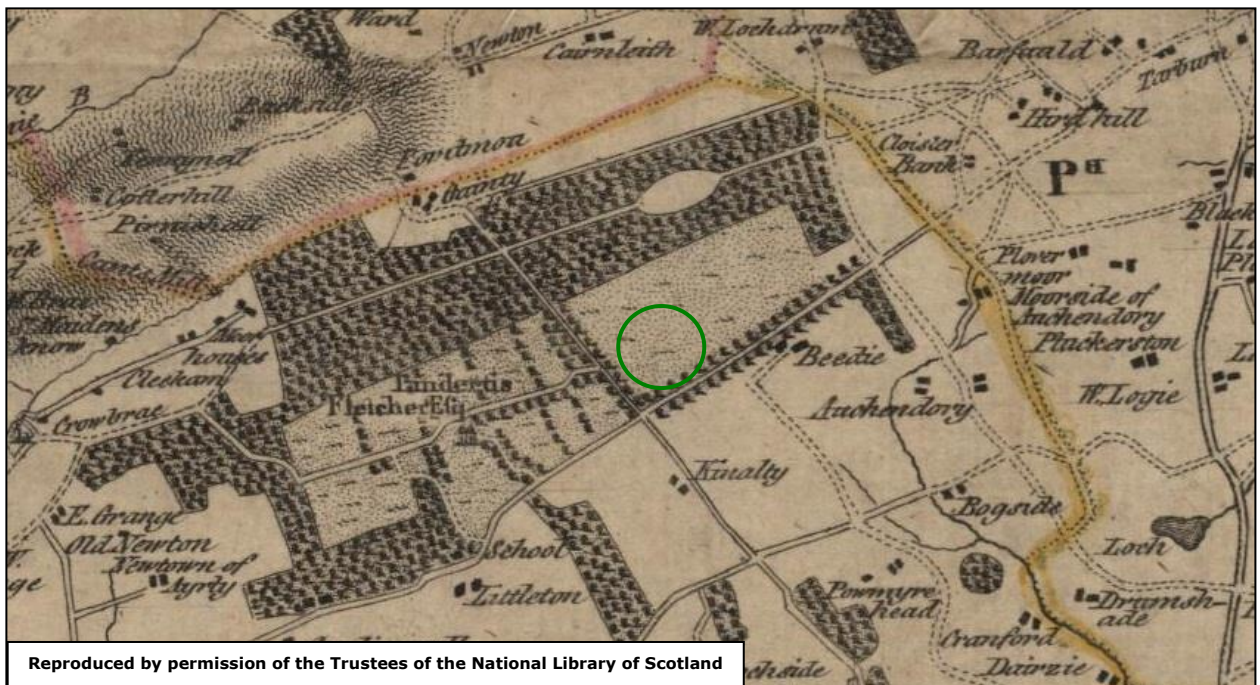


Figure 1b: Extract from Ainslie's Map of the County of Forfar or Shire of Angus (1794)

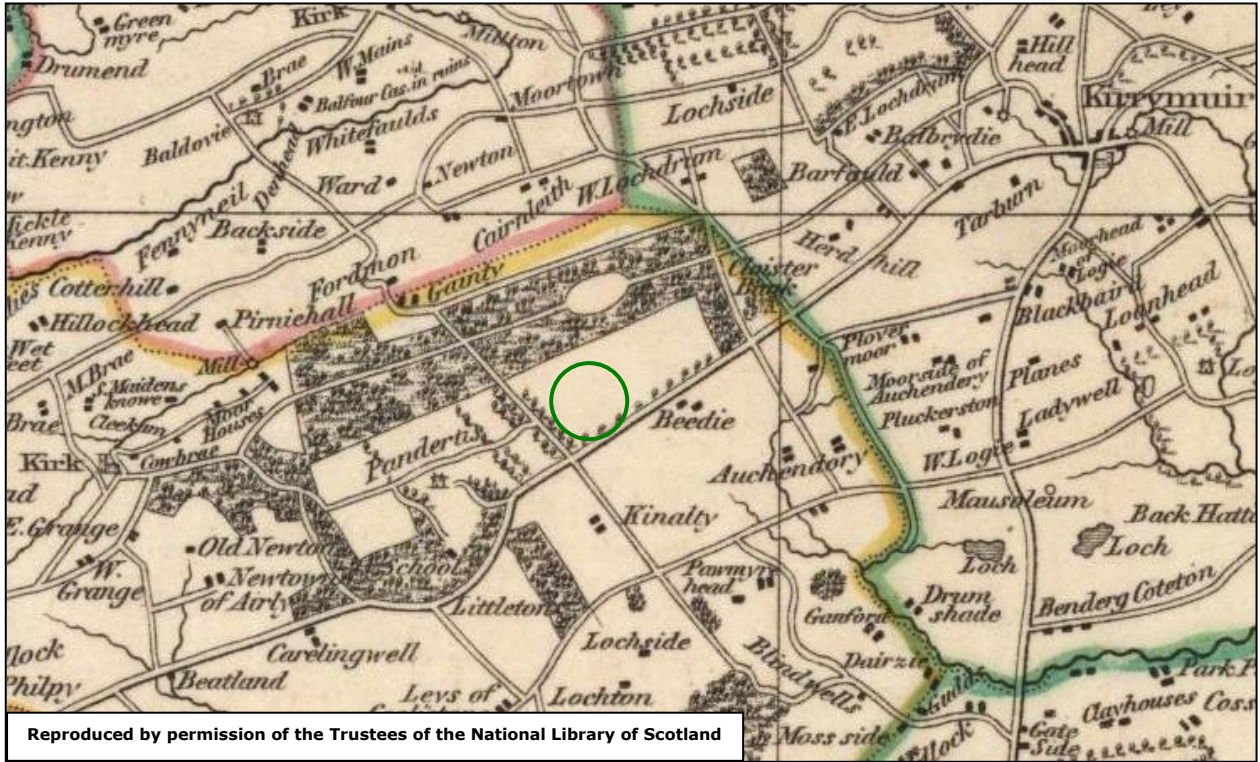


Figure 2a: Extract from Thomson's (1825) Northern Part of Angus Shire: Southern Part

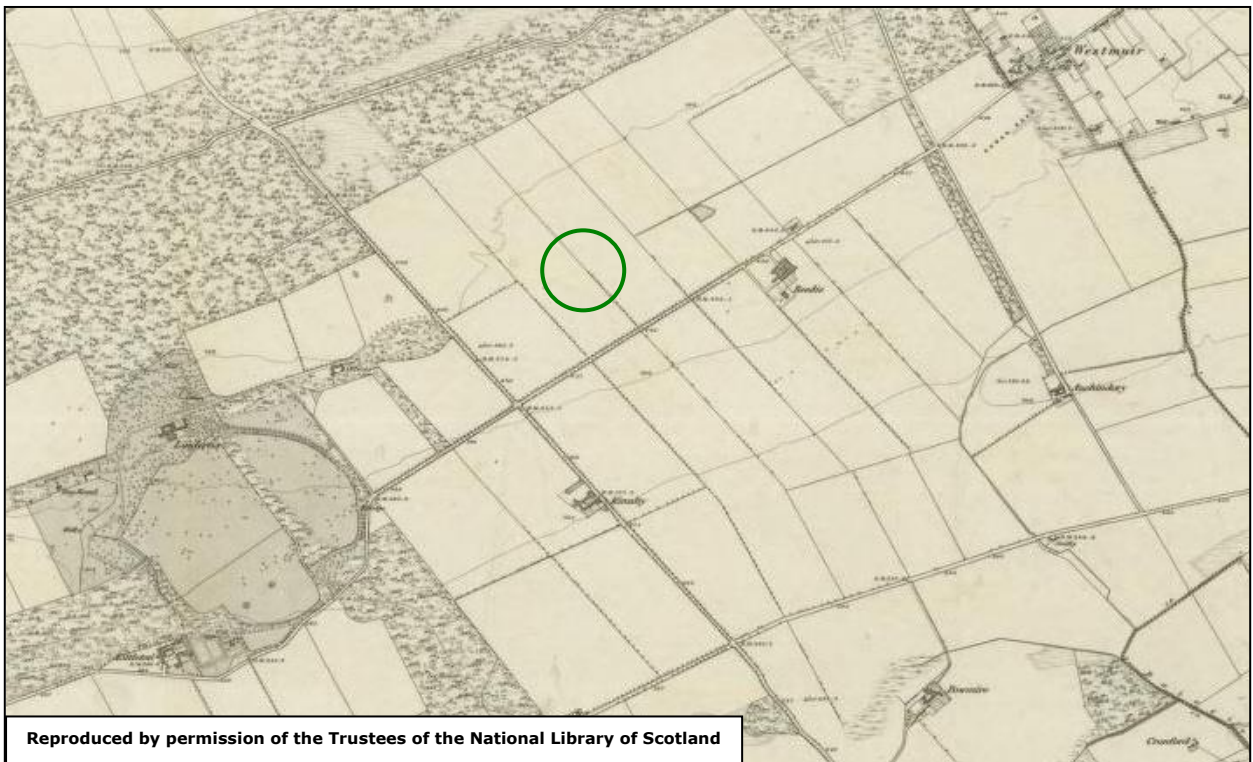


Figure 2b: Extract from the 6-inch 1st Edition Ordnance Survey (1865)

8. To the north of the new road there are two settlements (clachans) recorded, E Ready and W Ready with five and six structures respectively recorded and with agricultural fields recorded surrounding the settlements to the north. Within the surrounding landscape Roy (1747-1752) (Figure 1a) depicts a number of similar settlements and also a number of designed landscapes. The most relevant of these regarding the area close to Reedie Farm are Lindertis, labelled as 'Lindary', and Kinalty to the west and south respectively (Figure 1a).
9. By the time of John Ainslie's *Map of the County of Forfar or Shire of Angus* (1794) (Figure 1b), Reedie Farm is in its present location and depicted with two structures, although labelled 'Beedie', while the two clachans or E Ready and W Ready have disappeared and the area that they occupied has been incorporated into the Lindertis Estate (previously 'Lindary' on Roy 1747-1752). The estate of Lindertis has expanded considerably in all directions since Roy's (1747-52) survey. While Kinalty was the larger of the two designed landscapes, it has, by the time of Ainslie's map, been reduced to two structures. In the surrounding landscape there has been a considerable expansion in the number of settlements illustrating a populated pre-clearance landscape. With reference to the development area, it is recorded as an open field/area which is part of the Lindertis Estate. Ainslie's (1794) survey depicts a number of roads that are still on current mapping and in use today.
10. There is little change between Ainslie's (1794) and John Thomson's *Northern Part of Angus Shire: Southern Part* (1825) survey (Figure 2a). Reedie Farm is still labelled as 'Beedie' with two structures and there has been no further extension of the Lindertis Estate. In James Knox's *Map of the Basin of the Tay, including the Greater Part of Perthshire, Strathmore and the Braes of Angus or Forfar* (1850) (not shown) the current spelling of Reedie Farm is used and only one structure is depicted, Kinalty is also depicted as only having one structure. The most significant change is the smaller number of farmsteads and settlements across the landscape. The reduction of so many would imply that the clearances had started to take hold and depopulate the landscape.
11. By the time of the 6-inch 1st edition Ordnance Survey (1865) (Figure 2b) the landscape has become increasingly enclosed with the present day field alignment of the development area (Figure 3a) and surrounding fields in place. There has been an increased reduction in the number of settlements across the landscape and in the immediate area. Reedie Farm has grown substantially with an H-shaped structure surrounded by a larger square shaped structure with an entrance to the north. Kinalty is still present and recorded with three substantially sized structures with the Lindertis Estate still covering a substantial area. With the 6-inch 2nd and 3rd edition Ordnance Surveys (1902 and 1926 respectively) (not shown) the most significant change is the reduction in tree cover on the northern edge of the fields in which the development is located.
12. In the wider landscape there are a number of sites that have been recorded on the National Monument Records (NMR) representing archaeological activity from the Prehistoric up to the Post Medieval periods. Within 1km of the development area there are a number of sites that have been recorded. Approximately 300m to the east of the development area is a Scheduled Monument recorded as Reedie Souterrain (possible) (Canmore ID: 32320) which has been recorded by a cropmark during reconnaissance by the RCAHMS in 1983. Located to the south of Egno Moss and on the northern edge of the fields in which the development area is located are two cairns (Canmore ID: 32306 and 32294). In between them is an extensive area of Rig and Furrow (Canmore ID: 32330) which could possibly have been associated with the settlements of E and W Ready.
13. Located to the southeast of Reedie Farm to the south of the A296 is the northeast-southwest course of a linear cropmark representing the Camelton - Ardoch - Strageath - Cargill Roman Road (Canmore ID: 32285); there is also a Roman Signal Station (Canmore ID: 32305) situated to the north east of Reedie Farm. Sited to the east of Reedie Farm are also two linear features; Reedie (Canmore ID: 32339) and Auchindorie (Canmore ID: 32337) both recorded in the form of cropmarks.

14. In the field to the south of Reedie Farm is Kinalty Cursus (Canmore ID:32316) recorded as a cropmark located 500m ESE of Kinalty steading, revealing two parallel lines of pits which run from north to south for a distance of at least 180m. The lines of pits are set about 25m apart and unite in a rounded terminal at the southern end. The enclosed strip of ground is subdivided by a transverse line of pits about 125m from the S end.
15. To the southeast of the cursus are two further sites. Kinalty (Canmore ID: 32317) is a possible barrow with a ring-ditch noted by the RCAHMS during reconnaissance in 1976 and measuring about 6m in internal diameter. Located to the south east of the possible barrow is a curving line of pits recorded as Powmyre (Canmore ID: 259744) running roughly NNE-SSW across a field and possibly represents a pit-alignment recorded by cropmarks on oblique aerial photography. Finally, approximately 250m north Kinalty steading the remains of a stony mound were noted in 1940, although ploughing has left nothing of the possible natural/cultural mound.

Project Works

16. The programme of mitigation consisted of the archaeological monitoring of the excavation of foundation trenches and cable trenches associated with two wind turbines. Works were undertaken by Rathmell Archaeology Ltd and consistent with the terms described in the Written Scheme of investigation (Klemen 2013). Monitoring, recording and excavation were carried out in conjunction with the terms of this document.
17. Archaeological monitoring works were undertaken over three intermittent stages. Site investigation works consisting of six trial trenches were undertaken on the 18th February 2013. Excavations were carried out by an 18 ton JCB JS175W wheeled excavator.
18. Monitoring of the turbine bases was undertaken on the 5th March 2014 and monitoring of the cable trenches on the 14th May 2014. Excavations were carried out by an 18 ton JCB JS175W wheeled excavator and by hand.
19. Any potentially significant archaeological features, structures or deposits encountered were recorded by the archaeologist on site, using Rathmell Archaeology Ltd standard methods. All contexts, small finds and environmental samples were given unique numbers with bulk finds collected by context.
20. All works complied with Aberdeenshire Council Archaeological Services *Standard for Archaeological Fieldwork*, the Institute for Archaeologists' Standards and Policy Statements and Code of Conduct and Historic Scotland Policy Statement.

Findings

21. The development area is located in a ploughed arable field approximately 400m to the north of the A296 with the model of turbines to be erected being the A29 225KW.
22. The first stage of archaeological monitoring works covered the machine digging of six trial pits. The trial pits measured 4.0m to 4.4m in length and 1.3m wide (Figure 3a & 3b). These excavations revealed the depth of the plough soil (001) as ranging from 280mm to 340mm, and showed that it was formed of a mid-brown loosely compacted sandy clay soil. Beneath the plough soil (001) was a red/pink sandy clay subsoil (002) with frequent small stones with degraded sandstone present through to the base of the trial pits. No archaeological features were observed during the first stage of works.
23. The second stage of works involved monitoring the excavation of the turbine bases. Two bases were excavated for the construction of the turbines; Base A was to the south of the site and Base B was to the north. Base A (Figure 4a) measured 10.3m by 9.0m and was excavated to a depth of 700mm. Base B (Figure 4b) measured 10.0m by 9.0m and was excavated to a depth of 700mm.



Figure 3a: Shot of trial pit 2 taken from the W.



Figure 3b: Shot of trial pit 5 taken from the E.



Figure 4a: Shot of Base A taken from the W.



Figure 4b: Shot of Base B taken from the W.



Figure 5a: Detail of N end of rubble-filled field drain in Base B taken from the N.



Figure 5b: Trench leading to sub-station and demonstrating (001) and (002) in section (foreground of image).

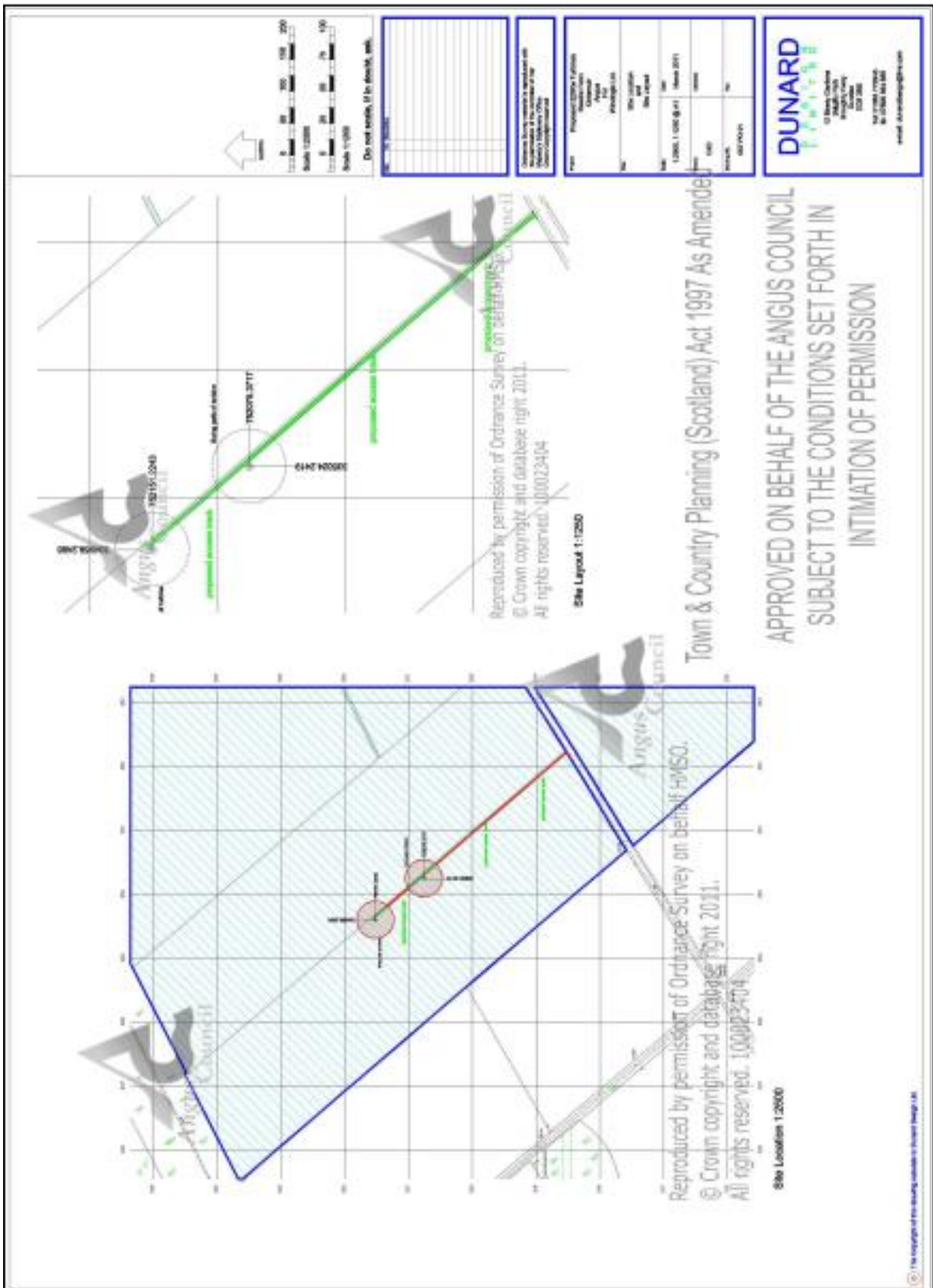


Figure 6: Location of the turbine bases and cable trenching.

24. Both bases showed the same stratigraphic sequence as the trial pits, with the depth of the plough soil (001) measuring 400mm and 450mm respectively across the two bases. In Base B there was a rubble-filled field drain (Figure 5a) that ran across the length of the excavated area and was cut into the red/pink sandy clay subsoil (002). This field drain measured 300mm wide.
25. The third and final stage of mitigation works consisted monitoring the excavation of the cable trenches (Figure 5b). Two trenches (A and B) were excavated that lead from each turbine base to their associated sub-station. They also showed the same stratigraphic sequence as recorded elsewhere on site with the plough soil (001) ranging in depth of 280mm to 340mm along their length.
26. Both trenches were orientated north-south with Trench A heading north from Base A to join its substation and Trench B heading south to join its associated sub-station. Trench A was 44m in length by 700mm in width and a depth of 900mm. Trench B had dimensions of 54m in length by 400mm in width and 900mm in depth.
27. No significant archaeological features were recorded during the course of the excavation works for either the turbine bases or the cable trenches.

Discussion

28. In the immediate and wider landscape there are a number of sites that have been recorded representing archaeological activity from the Prehistoric up to the Post Medieval periods. However during each stage of monitoring works no significant archaeological features were uncovered.
29. The only anthropic feature recorded was in the form of a rubble-filled drain running through the length of turbine base B. This form of field drain is considered to represent 18th to early 19th century agricultural activity and would have been inserted during a period when the landscape across much of Scotland was under a regime of '*improvement*'.

Recommendations

30. The archaeological mitigation works did not reveal any significant archaeological material from within the development area. Those features that were revealed are considered to be of recent origin.
31. As such it is the recommendation of Rathmell Archaeology Ltd that no further works are appropriate. The appropriateness and acceptability of our recommendations rest with Aberdeenshire Council Archaeology Service on behalf of Angus Council.

Conclusion

32. A programme of archaeological monitoring was carried over three intermittent stages on the 18th February 2013, 5th May 2014 and 14th May 2014 on behalf of Mr and Mrs Grant in support of the construction of two wind turbines at Reedie Farm, Kirriemuir, Angus (Planning Ref: 11/00267/Full). This Data Structure Report covers the monitoring works requested by Aberdeenshire Council Archaeology Service who advise Angus Council on archaeological matters.
33. In the course of the archaeological monitoring no significant archaeology was uncovered, only one feature relating to agricultural improvement was recorded representing 18th to 19th century activity.

References

Documentary

Klemen, P. 2013, *Reedie Farm Wind Turbines: Archaeological Mitigation, Written Scheme of Investigation*. Unpublished commercial report by Rathmell Archaeology Ltd.

Cartographic

Pont, T.	1553-96	<i>Lower Angus and Perthshire east of the Tay</i>
Gordon, R.	1636-52	<i>Anguss 41</i>
Edward, R.	1678	<i>Augusia Provincia Scotia</i>
Roy, W	1752-55	<i>Military Survey of Scotland Highlands</i>
Ainslie, J.	1794	<i>The County of Forfar or Shire of Angus</i>
Thomson, J.	1825	<i>Northern Part of Angus Shire: Southern Part</i>
Knox, J.	1850	<i>Map of the Basin of the Tay, including the Greater Part Perthshire, Strathmore and the Braes of Angus or Forfar</i>
Ordnance Survey	1854	<i>6-inch First Edition Sheet 26</i>
Ordnance Survey	1854	<i>6-inch First Edition Sheet 25</i>
Ordnance Survey	1902	<i>6-inch Second Edition Sheet 25</i>
Ordnance Survey	1926	<i>6-inch Third Edition Sheet 25</i>

Appendix 1: Registers

Context Register

Context No.	Area/ Trench	Type	Description	Interpretation
001		Deposit	Mid-brown, loosely compacted sandy clay	Plough soil
002		Deposit	Red/Pink, moderately compacted sandy clay	Subsoil

Photographic Register

Image No.	Digital	Description	From	Date
01	1	View to N showing area of turbines	SE	18/02/13
02	2	Working shot	NW	18/02/13
03	3	Trial pit 1	SE	18/02/13
04	4	Trial pit 2	W	18/02/13
05	5	Trial pit 3	N	18/02/13
06	6	Trial pit 4	NW	18/02/13
07	7	Trial pit 5	E	18/02/13
08	8	Trial pit 6	S	18/02/13
09	9	Working shot	SE	18/02/13
10	10	Working shot	NE	18/02/13
11	11	Working shot	SE	18/02/13
12	12	Working shot	S	18/02/13
13	13	Plan shot of Base A	W	05/03/14

Image No.	Digital	Description	From	Date
14	14	Plan shot of Base A	E	05/03/14
15	15	W facing section of Base A	E	05/03/14
16	16	S facing section of Base A	N	05/03/14
17	17	E facing section of Base A	W	05/03/14
18	18	N facing section of Base A	S	05/03/14
19	19	Detail of field drain in S end of Base B	S	05/03/14
20	20	Detail of field drain in N end of Base B	N	05/03/14
21	21	Plan shot of Base B	E	05/03/14
22	22	Plan shot of Base B	W	05/03/14
23	23	S facing section of Base B	N	05/03/14
24	24	W facing section of Base B	E	05/03/14
25	25	N facing section of Base B	S	05/03/14
26	26	E facing section of Base B	W	05/03/14
27	27	General shot of site	S	14/05/14
28	28	Plan of south end of Trench A	S	14/05/14
29	29	West facing section of southern trench A	E	14/05/14
30	30	West facing section of southern trench A	E	14/05/14
31	31	Shot of collapsed part of Trench A	NE	14/05/14
32	32	West facing section of middle of Trench A	E	14/05/14
33	33	Plan of middle of Trench A	S	14/05/14
34	34	West facing section of North side Trench A	E	14/05/14
35	35	Plan of North end of Trench A	SW	14/05/14
36	36	Plan of terminus of Trench A	SW	14/05/14

Image No.	Digital	Description	From	Date
37	37	Plan of north end of Trench B	NE	14/05/14
38	38	Plan of north end of Trench B	N	14/05/14
39	39	East facing section of North side of Trench B	E	14/05/14
40	40	East facing section of North side of Trench B	E	14/05/14
41	41	Plan of middle end of Trench B	N	14/05/14
42	42	Plan of middle end of Trench B	W	14/05/14
43	43	North facing section of Middle end of Trench B(field drain)	S	14/05/14
44	44	Plan of terminus of Trench B	N	14/05/14
45	45	East facing section of terminus Trench B	E	14/05/14
46	46	East facing section of terminus Trench B	E	14/05/14

Appendix 2: Discovery & Excavation in Scotland

LOCAL AUTHORITY:	Angus
PROJECT TITLE/SITE NAME:	Reedie Farm Wind Turbines, Kirriemuir
PROJECT CODE:	RA13015
PARISH:	Kirriemuir
NAME OF CONTRIBUTOR:	Callum Allsop
NAME OF ORGANISATION:	Rathmell Archaeology Limited
TYPE(S) OF PROJECT:	Monitoring
NMRS NO(S):	None
SITE/MONUMENT TYPE(S):	None
SIGNIFICANT FINDS:	None
NGR (2 letters, 8 or 10 figures)	NO 34835 52028 (Centred)
START DATE (this season)	18 th February 2013
END DATE (this season)	14 th May 2014
PREVIOUS WORK (incl. <i>DES</i> ref.)	None
MAIN (NARRATIVE) DESCRIPTION: (may include information from other fields)	<p>A programme of monitoring works were required on behalf of Mr and Mrs Grant in support of the construction of two wind turbines at Reedie Farm, Kirriemuir, Angus (Planning Ref: 11/00267/Full). The archaeological works were designed to mitigate the impact on the archaeological remains within the development area to the agreement of Aberdeenshire Council Archaeology Service. Rathmell Archaeology Limited was appointed to undertake the development and implementation of archaeological mitigation works.</p> <p>The archaeological mitigation works did not reveal any significant archaeological material from within the development area. One feature was recorded which represented an 18th to 19th century rubble field drain.</p>
PROPOSED FUTURE WORK:	None
CAPTION(S) FOR ILLUSTRS:	None
SPONSOR OR FUNDING BODY:	Mr and Mrs Grant
ADDRESS OF MAIN CONTRIBUTOR:	Unit 8 Ashgrove Workshops, Kilwinning, Ayrshire KA13 6PU
EMAIL ADDRESS:	contact@rathmell-arch.co.uk
ARCHIVE LOCATION (intended/deposited)	Report to Aberdeenshire Council Archaeology Service and archive to RCAHMS Collections.

Contact Details

34. Rathmell Archaeology can be contacted at our Registered Office or through the web:

Ayrshire Office:

Rathmell Archaeology Ltd
Unit 8 Ashgrove Workshops
Kilwinning
Ayrshire
KA13 6PU

www.rathmell-arch.co.uk

t.: 01294 542848

f.: 01294 542849

e.: contact@rathmell-arch.co.uk

35. Dundee Office:

Rathmell Archaeology Ltd
23 King Street
Broughty Ferry
Dundee
DD5 1HE

www.rathmell-arch.co.uk

t.: 01382 339277

m.: 07827 913796

e.: peter.klemen@rathmell-arch.co.uk

36. The Aberdeenshire Council Archaeology Service can be contacted at their office or through the web:

Archaeology Service
Aberdeenshire Council
Woodhill House
Westburn Road
Aberdeen
AB16 5GB

www.aberdeenshire.gov.uk

t.: 01224 664221

e.: archaeology@aberdeenshire.gov.uk

End of Document