

Appendix 4 - Crofts Farm Wind Turbines Heritage Figures

to accompany

Crofts Farm Wind Turbines Environmental Statement

Chapter 9: Cultural Heritage/ Archaeology

for

Crofts Farm Renewables Ltd

produced by

Green Cat Renewables Ltd.



Crofts Farm Wind Cluster Cultural Heritage Figures

Table of Contents

Figure No. Title

Features of historical significance within 2km

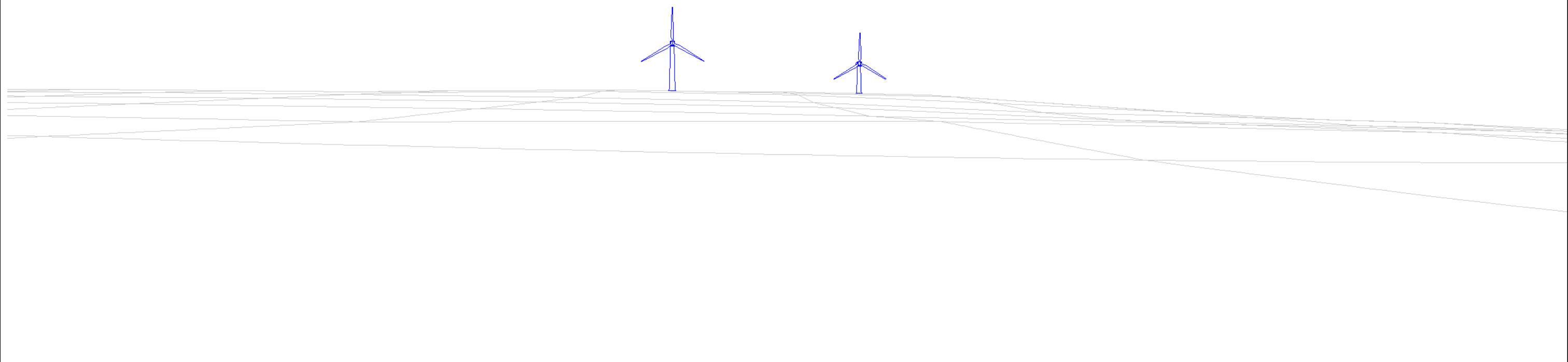
WL-9.1	Carmylie East Parish School (LB 1)
WL-9.2	Earth House, Cairn Connan (LB 2)
WL-9.3	Connansyth Farmhouse (LB 3)

Features of historical significance within 2-5km

WL-9.4	Gardyne Castle (LB 4)
WL-9.5	West Mains of Colliston (SAM 1)
WL-9.6	West Mains of Colliston (SAM 2)
WL-9.7	Colliston Castle (SAM 3)
WL-9.8	Newton of Boysack (SAM 4)
WL-9.9	Dumbarrow Hill, Fort (SAM 5)
WL-9.10	Kellyfield (SAM 6)
WL-9.11	Damside Cottages, Pit Circle (SAM 7)
WL-9.12	Froick Mains, Settlement (SAM 8)
WL-9.13	Cairn Knap (SAM 9)
WL-9.14	The Guynd (GDL 1 a)
WL-9.15	The Guynd (GDL 1 b)
WL-9.16	The Guynd (GDL 1 c)
WL-9.17	The Guynd (GDL 1 d)

WL – 9.1: Carmyllie East Parish School (LB 1)
a) Wireline

Viewing Distance: c. 300mm
Field of View: 76



Project: **Crofts Farm**
Viewpoint: **Carmyllie East Parish School (LB 1)**

Location: **E356401 N744518**
Elevation: **156m (A.O.D)**
View Direction: **92.9**
Distance: **0.8km**

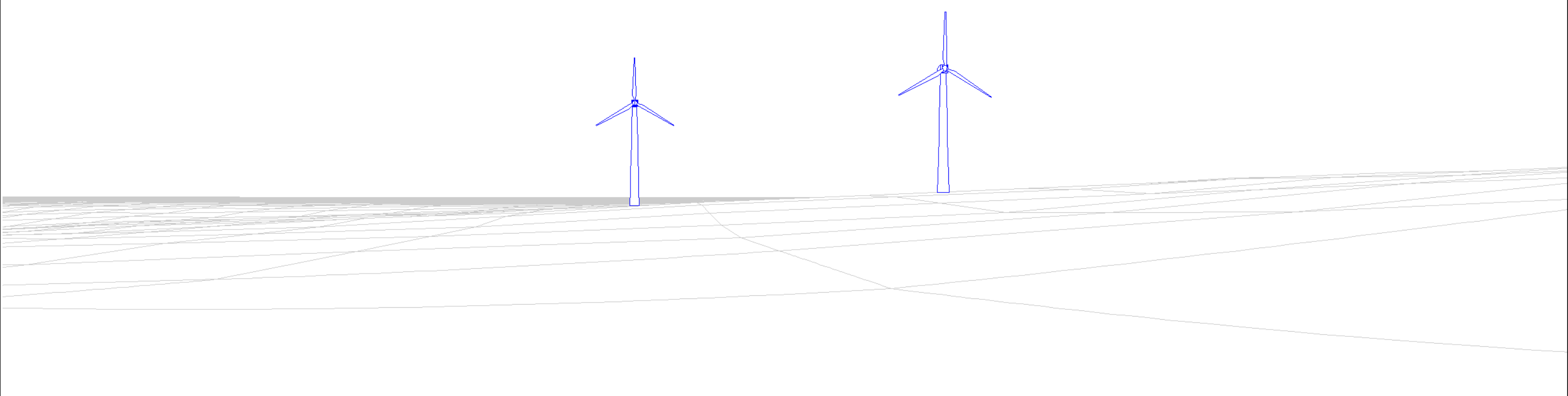
Sensitivity: Medium
Magnitude: Negligible
Overall Impact: Negligible

Doc. No.: C0119-183WL9.1
Version: 1.0
Author: RD
Checked by: RS
Approved by: GM
Date: 08/08/2013



WL – 9.2: Earth House, Cairn Connan (LB 2)
a) Wireline

Viewing Distance: c. 300mm
Field of View: 76



Project: **Crofts Farm**
Viewpoint: **Earth House, Cairn Connan (LB 2)**

Location: **E357310 N745051**
Elevation: **162m (A.O.D)**
View Direction: **186.0**
Distance: **0.5km**

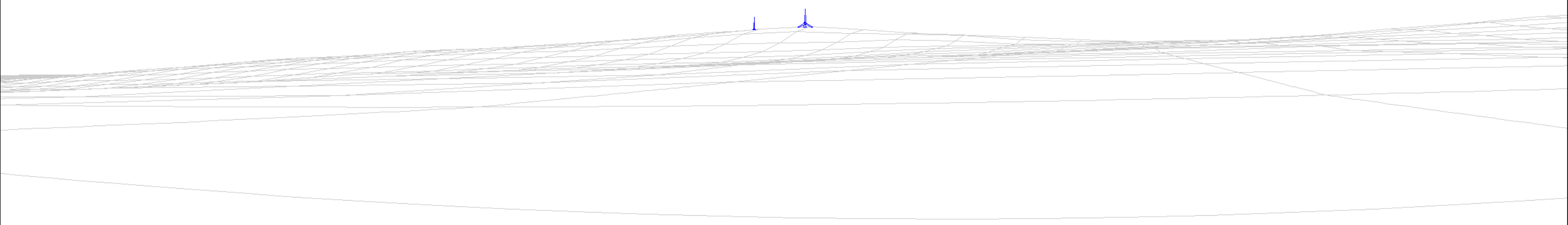
Sensitivity: Medium
Magnitude: Negligible
Overall Impact: Negligible

Doc. No.: C0119-183WL9.1
Version: 1.0
Author: RD
Checked by: RS
Approved by: GM
Date: 08/08/2013



WL – 9.3: Connansyth Farmhouse (LB 3)
a) Wireline

Viewing Distance: c. 300mm
Field of View: 76



Project: **Crofts Farm**
Viewpoint: **Connansyth Farmhouse (LB 3)**

Location: **E356661 N746464**
Elevation: **141m (A.O.D)**
View Direction: **163.5**
Distance: **1.9 km**

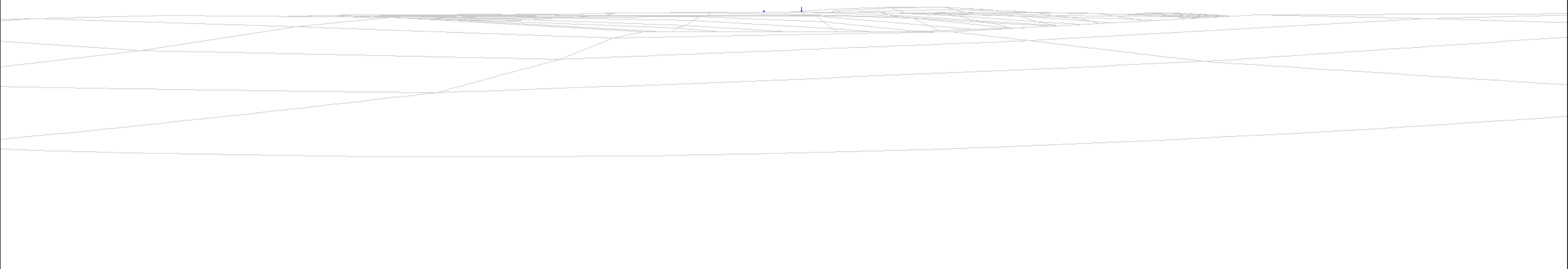
Sensitivity: Medium
Magnitude: Negligible
Overall Impact: Negligible

Doc. No.: C0119-183WL9.1
Version: 1.0
Author: RD
Checked by: RS
Approved by: GM
Date: 08/08/2013



WL – 9.4: Gardyne Castle (LB 4)
a) Wireline

Viewing Distance: c. 300mm
Field of View: 76



Project: **Crofts Farm**

Location: **E357380 N748824**
Elevation: **61m (A.O.D)**

Sensitivity: High
Magnitude: Negligible

Doc. No.: C0119-183WL9.1
Version: 1.0
Author: RD

Viewpoint: **Gardyne Castle (LB4)**

View Direction: **181.7**
Distance: **4.3 km**

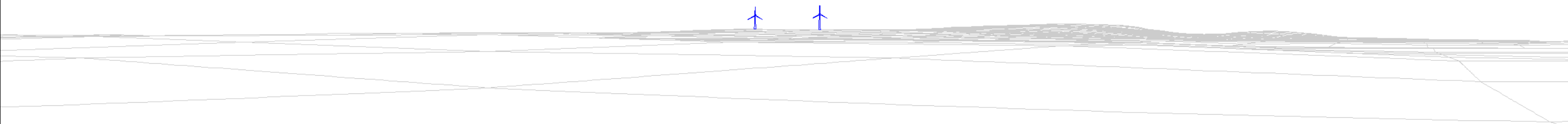
Overall Impact: Low

Checked by: RS
Approved by: GM
Date: 08/08/2013



WL – 9.5: West Mains of Colliston (SAM 1)
a) Wireline

Viewing Distance: c. 300mm
Field of View: 76

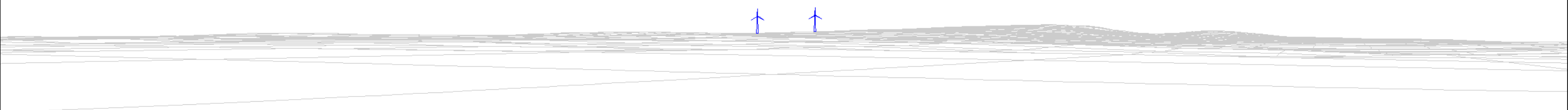


Project: Crofts Farm	Location: E360245 N746245	Sensitivity: High Magnitude: Negligible Overall Impact: Low	Doc. No.: C0119-183WL9.1 Version: 1.0 Author: RD Checked by: RS Approved by: GM Date: 08/08/2013
Viewpoint: West Mains of Colliston (SAM 1)	Elevation: 50m (A.O.D) View Direction: 239.4 Distance: 3.4 km		



WL – 9.6: West Mains of Colliston (SAM 2)
a) Wireline

Viewing Distance: c. 300mm
Field of View: 76



Project: **Crofts Farm**
Viewpoint: **West Mains of Colliston (SAM 2)**

Location: **E360655 N746229**
Elevation: **45m (A.O.D)**
View Direction: **242.8**
Distance: **3.8 km**

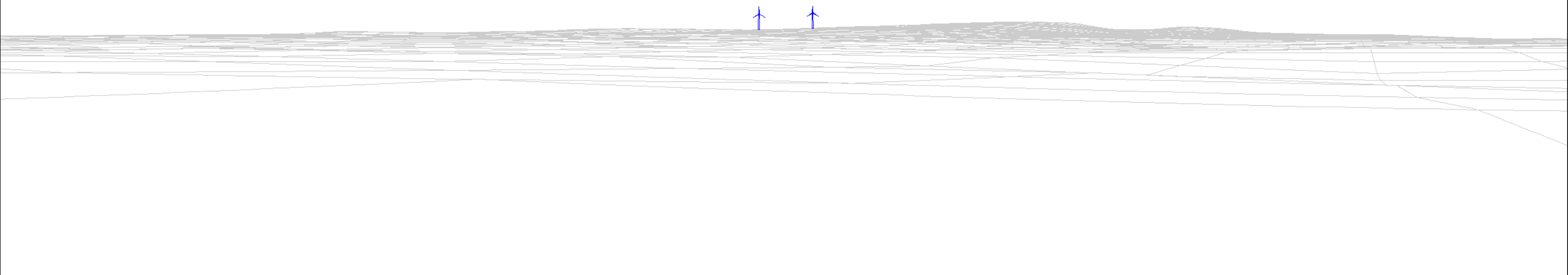
Sensitivity: High
Magnitude: Negligible
Overall Impact: Low

Doc. No.: C0119-183WL9.1
Version: 1.0
Author: RD
Checked by: RS
Approved by: GM
Date: 08/08/2013



WL – 9.7: Colliston Castle (SAM 3)
a) Wireline

Viewing Distance: c. 300mm
Field of View: 76




Project:	Crofts Farm
Viewpoint:	Colliston Castle (SAM 3)

Location:	E360899 N746395
Elevation:	42m (A.O.D)
View Direction:	242.2
Distance:	4.0 km

Sensitivity: High
Magnitude: Negligible
Overall Impact: Low

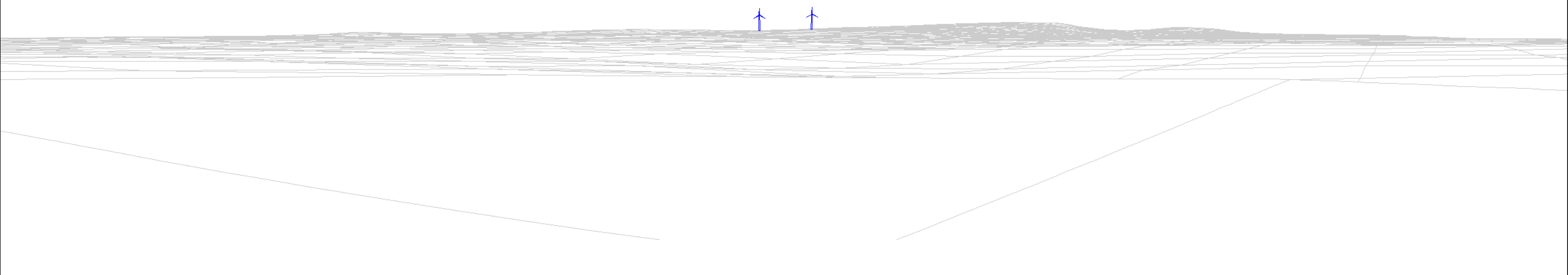
--

Doc. No.:	C0119-183WL9.1
Version:	1.0
Author:	RD
Checked by:	RS
Approved by:	GM
Date:	08/08/2013



WL – 9.8: Newton of Boysack (SAM 4)
a) Wireline

Viewing Distance: c. 300mm
Field of View: 76



Project: **Crofts Farm**
Viewpoint: **Newton of Boysack (SAM 4)**

Location: **E360960 N746555**
Elevation: **40m (A.O.D)**
View Direction: **240.7**
Distance: **4.2 km**

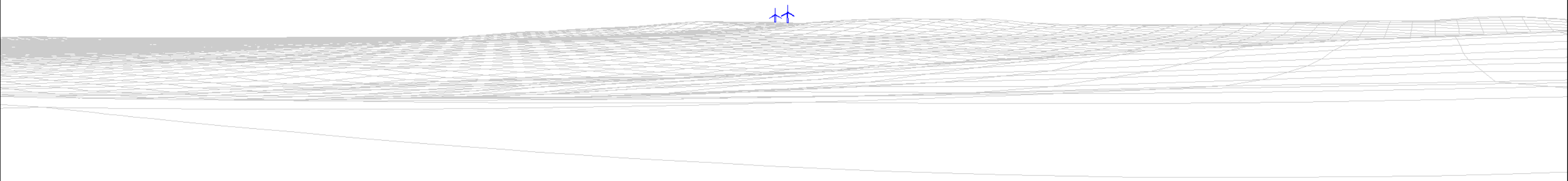
Sensitivity: High
Magnitude: Negligible
Overall Impact: Low

Doc. No.: C0119-183WL9.1
Version: 1.0
Author: RD
Checked by: RS
Approved by: GM
Date: 08/08/2013



WL – 9.9: Dumbarrow Hill, Fort (SAM 5)
a) Wireline

Viewing Distance: c. 300mm
Field of View: 76



Project: **Crofts Farm**
Viewpoint: **Dumbarrow Hill, Fort (SAM 5)**

Location: **E355162 N747916**
Elevation: **160m (A.O.D)**
View Direction: **148.8**
Distance: **3.9 km**

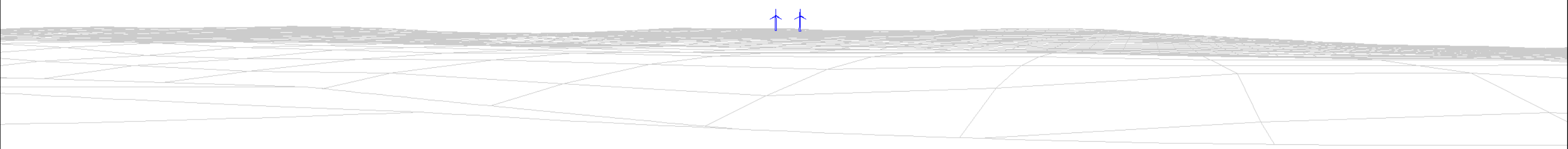
Sensitivity: High
Magnitude: Negligible
Overall Impact: Low

Doc. No.: C0119-183WL9.1
Version: 1.0
Author: RD
Checked by: RS
Approved by: GM
Date: 08/08/2013



WL – 9.10: Kellyfield (SAM 6)
a) Wireline

Viewing Distance: c. 300mm
Field of View: 76



Project: **Crofts Farm**

Location: **E358531 N740406**
Elevation: **84m (A.O.D)**

Sensitivity: High
Magnitude: Negligible

Doc. No.: C0119-183WL9.1
Version: 1.0
Author: RD

Viewpoint: **Kellyfield (SAM 6)**

View Direction: **342.5**
Distance: **4.2 km**

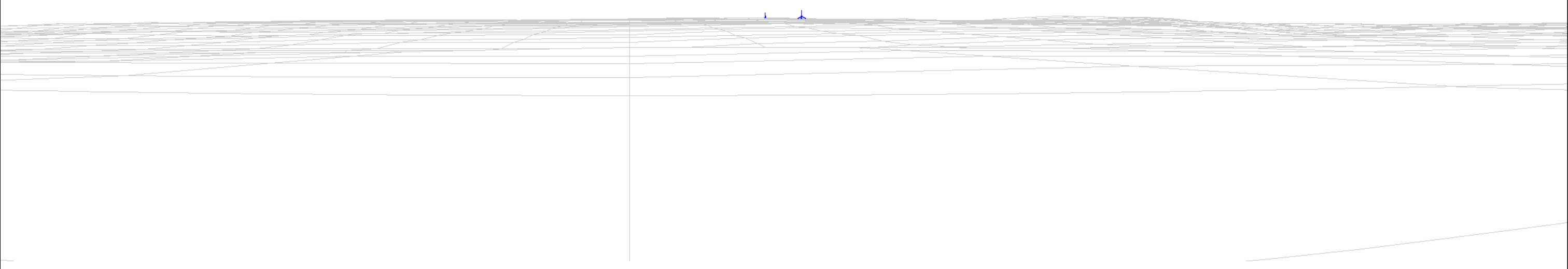
Overall Impact: Low

Checked by: RS
Approved by: GM
Date: 08/08/2013



WL – 9.11: Damside Cottages, Pit Circle (SAM 7)
a) Wireline

Viewing Distance: c. 300mm
Field of View: 76



Project: **Crofts Farm**
Viewpoint: **Damside Cottages, Pit Circle (SAM 7)**

Location: **E357900 N749410**
Elevation: **46m (A.O.D)**
View Direction: **187.5**
Distance: **4.9 km**

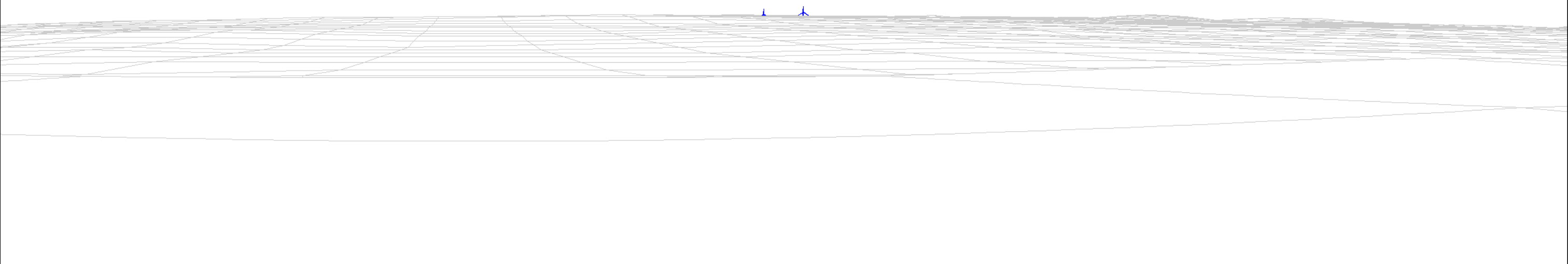
Sensitivity: High
Magnitude: Negligible
Overall Impact: Low

Doc. No.: C0119-183WL9.1
Version: 1.0
Author: RD
Checked by: RS
Approved by: GM
Date: 08/08/2013



WL – 9.12: Froick Mains, Settlement (SAM 8)
a) Wireline

Viewing Distance: c. 300mm
Field of View: 76



Project:	Crofts Farm
Viewpoint:	Froick Mains, Settlement (SAM 8)

Location:	E358576 N749321
Elevation:	49m (A.O.D)
View Direction:	195.3
Distance:	4.9 km

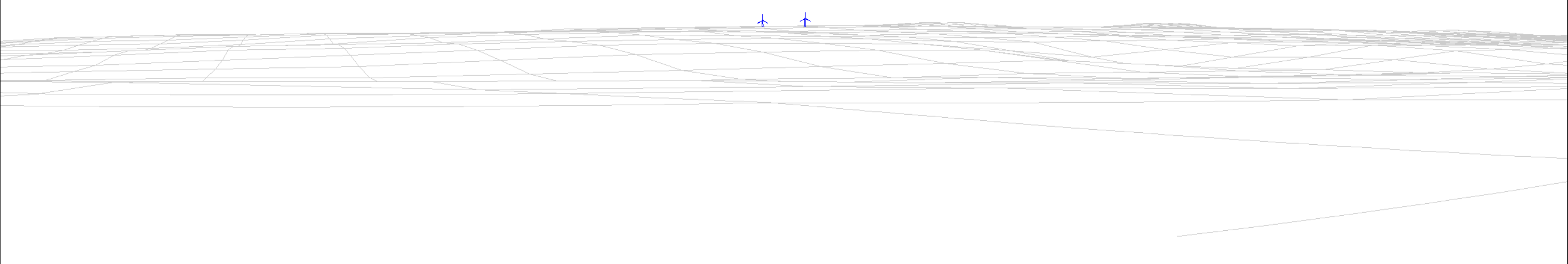
Sensitivity:	High
Magnitude:	Negligible
Overall Impact:	Low

Doc. No.:	C0119-183WL9.1
Version:	1.0
Author:	RD
Checked by:	RS
Approved by:	GM
Date:	08/08/2013



WL – 9.13: Cairn Knap (SAM 9)
a) Wireline

Viewing Distance: c. 300mm
Field of View: 76



Project: **Crofts Farm**
Viewpoint: **Cairn Knap (SAM 9)**

Location: **E359327 N749061**
Elevation: **54m (A.O.D)**
View Direction: **204.4**
Distance: **4.9 km**

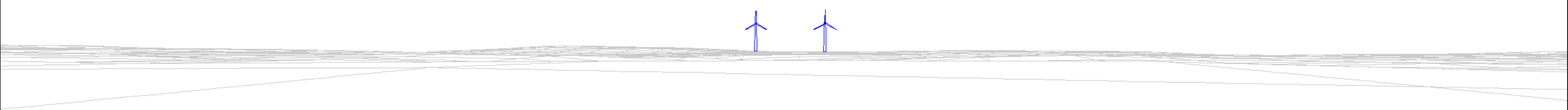
Sensitivity: High
Magnitude: Negligible
Overall Impact: Low

Doc. No.: C0119-183WL9.1
Version: 1.0
Author: RD
Checked by: RS
Approved by: GM
Date: 08/08/2013



WL – 9.14: The Guynd (GDL 1- north)
a) Wireline

Viewing Distance: c. 300mm
Field of View: 76



Project: **Crofts Farm**

Location: **E357319 N742245**
Elevation: **108m (A.O.D)**

Sensitivity: High
Magnitude: Negligible

Doc. No.: C0119-183WL9.1
Version: 1.0
Author: RD

Viewpoint: **The Guynd (GDL 1- north)**

View Direction: **358.2**
Distance: **2.2 km**

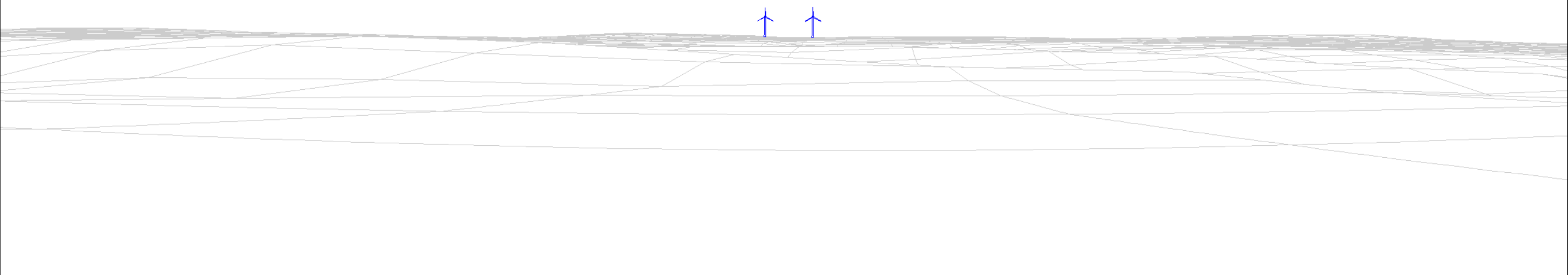
Overall Impact: Low

Checked by: RS
Approved by: GM
Date: 08/08/2013



WL – 9.15: The Guynd (GDL 1 south)
a) Wireline

Viewing Distance: c. 300mm
Field of View: 76




Project:	Crofts Farm
Viewpoint:	The Guynd (GDL 1 south)

Location:	E357485 N741409
Elevation:	92m (A.O.D)
View Direction:	355.6
Distance:	3.0 km

Sensitivity: High
Magnitude: Negligible
Overall Impact: Low

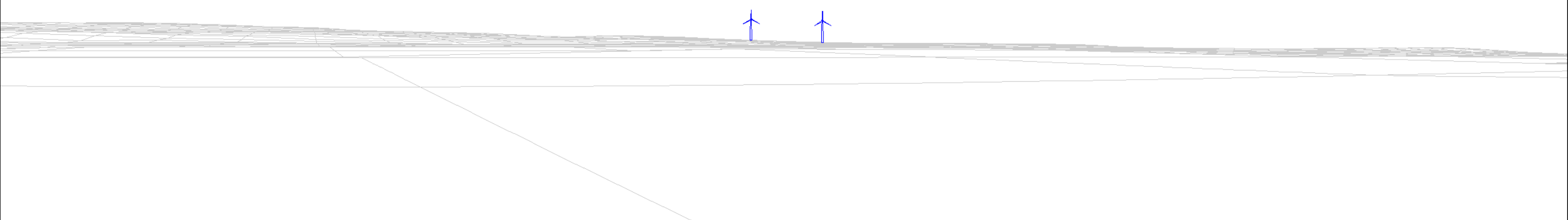
--

Doc. No.:	C0119-183WL9.1
Version:	1.0
Author:	RD
Checked by:	RS
Approved by:	GM
Date:	08/08/2013



WL – 9.16: The Guynd (GDL 1 - west)
a) Wireline

Viewing Distance: c. 300mm
Field of View: 76



Project:	Crofts Farm
Viewpoint:	The Guynd (GDL 1 -west)

Location:	E356096 N741757
Elevation:	120m (A.O.D)
View Direction:	23.0
Distance:	2.9 km

Sensitivity: High
Magnitude: Negligible
Overall Impact: Low

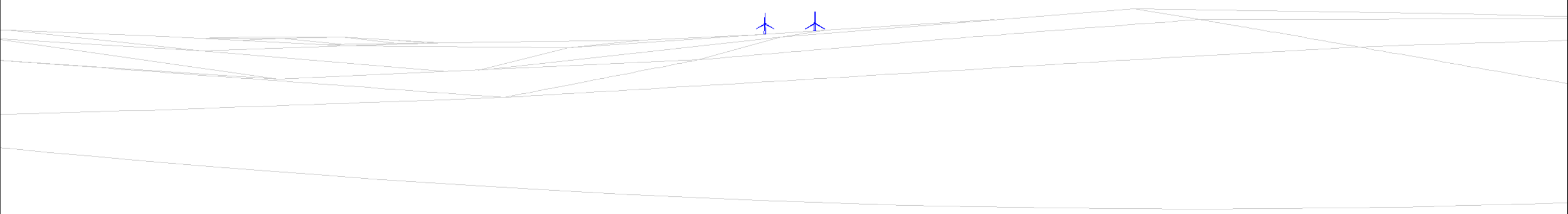
--

Doc. No.:	C0119-183WL9.1
Version:	1.0
Author:	RD
Checked by:	RS
Approved by:	GM
Date:	08/08/2013



WL – 9.17: The Guynd (GDL 1 east)
a) Wireline

Viewing Distance: c. 300mm
Field of View: 76



Project: **Crofts Farm**

Location: **E357678 N741884**
Elevation: **89m (A.O.D)**

Sensitivity: High
Magnitude: Negligible

Doc. No.: **C0119-183WL9.1**
Version: **1.0**
Author: **RD**

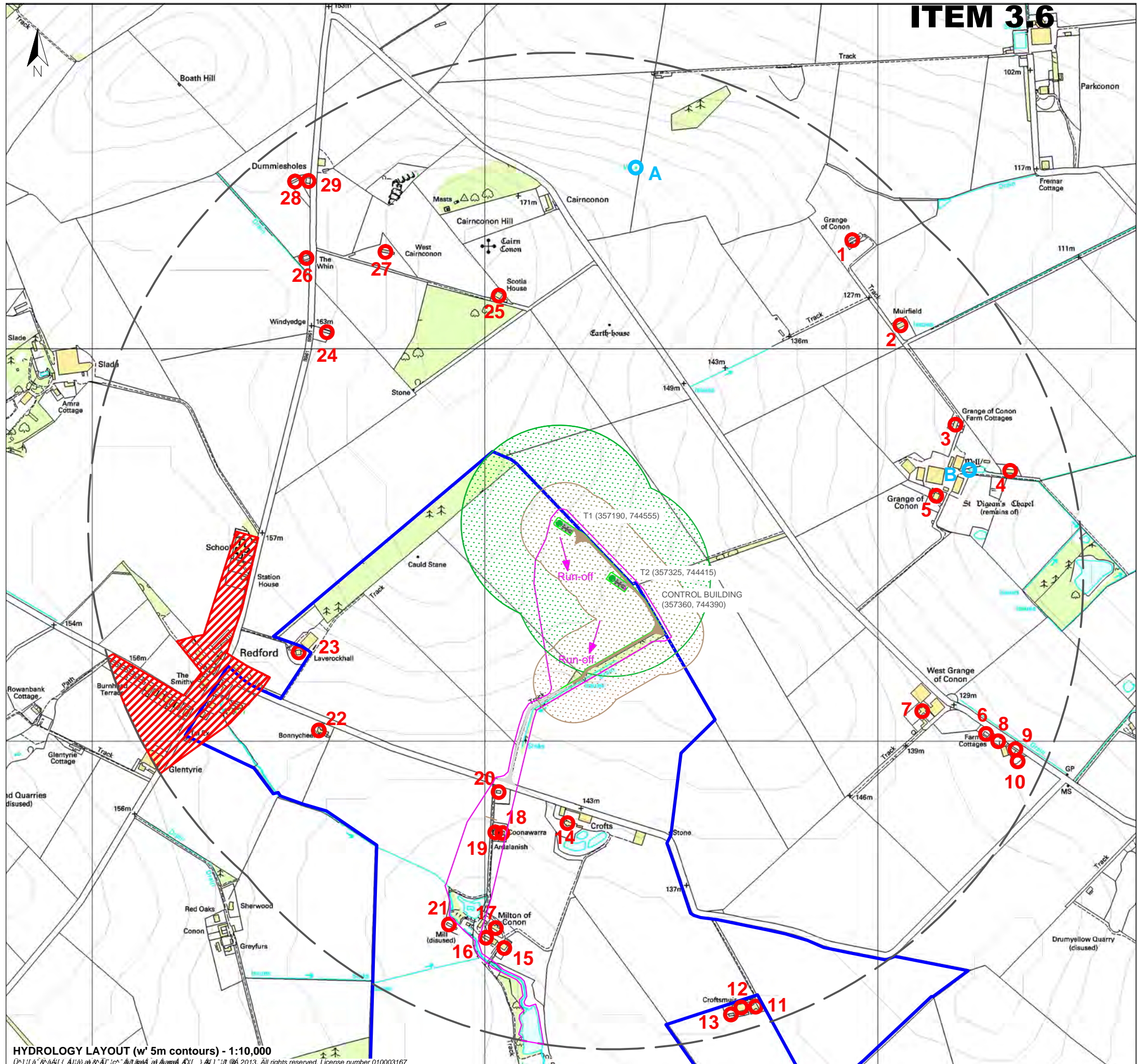
Viewpoint: **The Guynd (GDL 1 east)**

View Direction: **350.6**
Distance: **2.6 km**

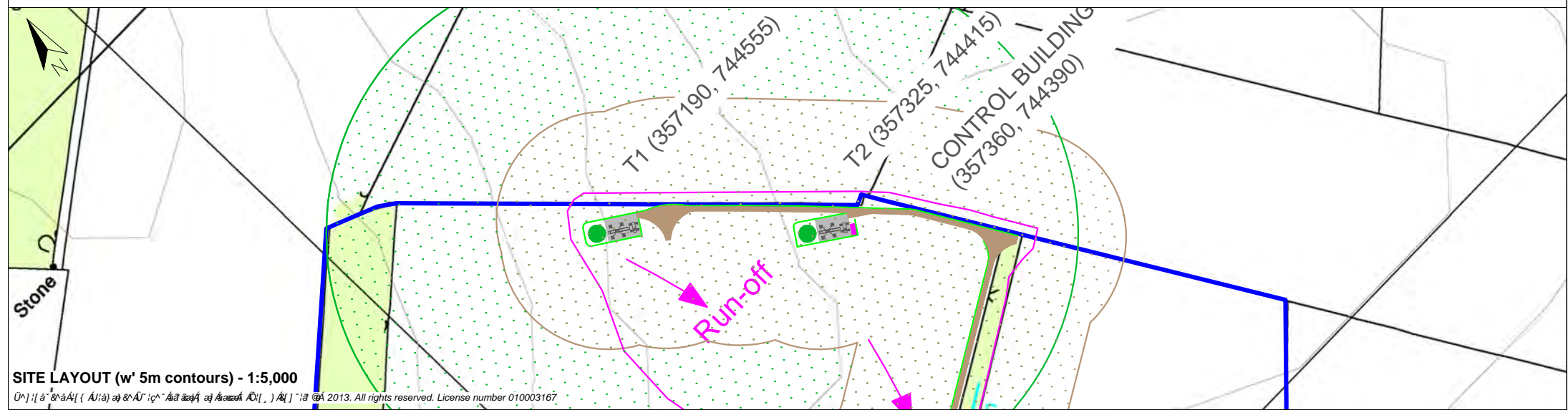
Overall Impact: Low

Checked by: **RS**
Approved by: **GM**
Date: **08/08/2013**





KEY			
	SURFACE WATER DRAINAGE SYSTEM		REDFORD SETTLEMENT
	SURFACE WATER RISK AREA OF CATCHMENT		PROPERTY WITHIN 1.2km STUDY BOUNDARY
	LAND OWNERSHIP BOUNDARY		WELL
	1.2km STUDY BOUNDARY		250m DEWATERING ZONE OF INFLUENCE
			100m BOUNDARY AROUND ACCESS TRACK & CABLE TRENCH
			PROPOSED TURBINE / FOUNDATION
			HARDSTANDING
			NEW ACCESS TRACK
			UPGRADED ACCESS TRACK
			CONTROL BUILDING



Project Title: CROFTS FARM WIND TURBINES	Date drawn: 12.08.13	Rev. -	Date -	Chk'd -	Client: Crofts Farm Renewables Ltd.	GREEN CAT RENEWABLES LTD Midlothian Innovation Centre, Pentlandsfield, Edinburgh, EH25 9RE. Tel:0131 440 9053 www.greencatrenewables.co.uk
	Drawing Title: HYDROLOGICAL CONTEXT OF SITE	Drawn by: QA	-	-		
Job No. C0118-183	Drawing No. FIGURE 10.1	Scale: AS STATED	Checked by: GM	-	Approved by: GM	
			Approved by: GM	-		

Crofts Farm Wind Turbines Landscape Figures

to accompany

Crofts Farm Wind Turbines Environmental Statement

Chapter 7: Landscape and Visual Impact

for

Crofts Farm Renewables Ltd

produced by

Green Cat Renewables Ltd.



Crofts Farm Wind Turbines Landscape Figures

Table of Contents

Figure No.	Title	Figure No.	Title
7.1	Study Area	7.12	VP-01 View from The Guynd
7.2	Landscape Character Types	7.13	VP-02 View from B961 near Newton
7.3	Landscape Designations	7.14	VP-03 View from A933 near Colliston
7.4	ZTV to 55m Hub Height and 35km radius	7.15	VP-04 View from Minor Road near Woodville Feus
7.5	ZTV to 80m Tip Height and 35km radius	7.16	VP-05 View from Arbroath
7.6a	Detailed ZTV to 80m Tip Height and 35km radius – NE Zone	7.17	VP-06 View from Friockheim
7.6b	Detailed ZTV to 80m Tip Height and 35km radius – E Zone	7.18	VP-07 View from Dodd Hill
7.6c	Detailed ZTV to 80m Tip Height and 35km radius – SE Zone	7.19	VP-08 View from Tentsmuir
7.6d	Detailed ZTV to 80m Tip Height and 35km radius – SW Zone	7.20	VP-09 View from Kirriemuir
7.6e	Detailed ZTV to 80m Tip Height and 35km radius – W Zone	7.21	VP-10 View from White Cathertun
7.6f	Detailed ZTV to 80m Tip Height and 35km radius – NW Zone	7.22	VP-11 View from Crombie Park
7.7	Cumulative Basemap	7.23	VP-12 View from Pitmuies
7.8	Route Assessment	7.24	VP-13 View from A92 Inverkeiler
7.9	CZTV to Tip Height with 35km Radius – Operational projects	7.25	VP-14 View from Balmashanner Hill
7.10	CZTV to Tip Height with 35km Radius – Consented projects	7.26	VP-15 View from Turin Hill
7.11	CZTV to Tip Height with 35km Radius – Planned projects	7.27	VP-16 View from North of Drummyellow
		7.28	VP-17 View from South of Parkconon
		7.29	VP-18 View from Redford



Project Name: **Crofts Farm Wind Turbines**

Document Title: **Study Area**

Scale: **1:250,000 @ A3**

Key:

- Proposed Wind Turbines Location
- 5, 10, 15, 20, 25 & 30km Radii from Wind Turbines Centre
- Landscape and Visual Study Area (35km)

Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Client: **Crofts Farm Renewables Ltd.**

Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.1**

Version: **1.0**

Author: **SS**

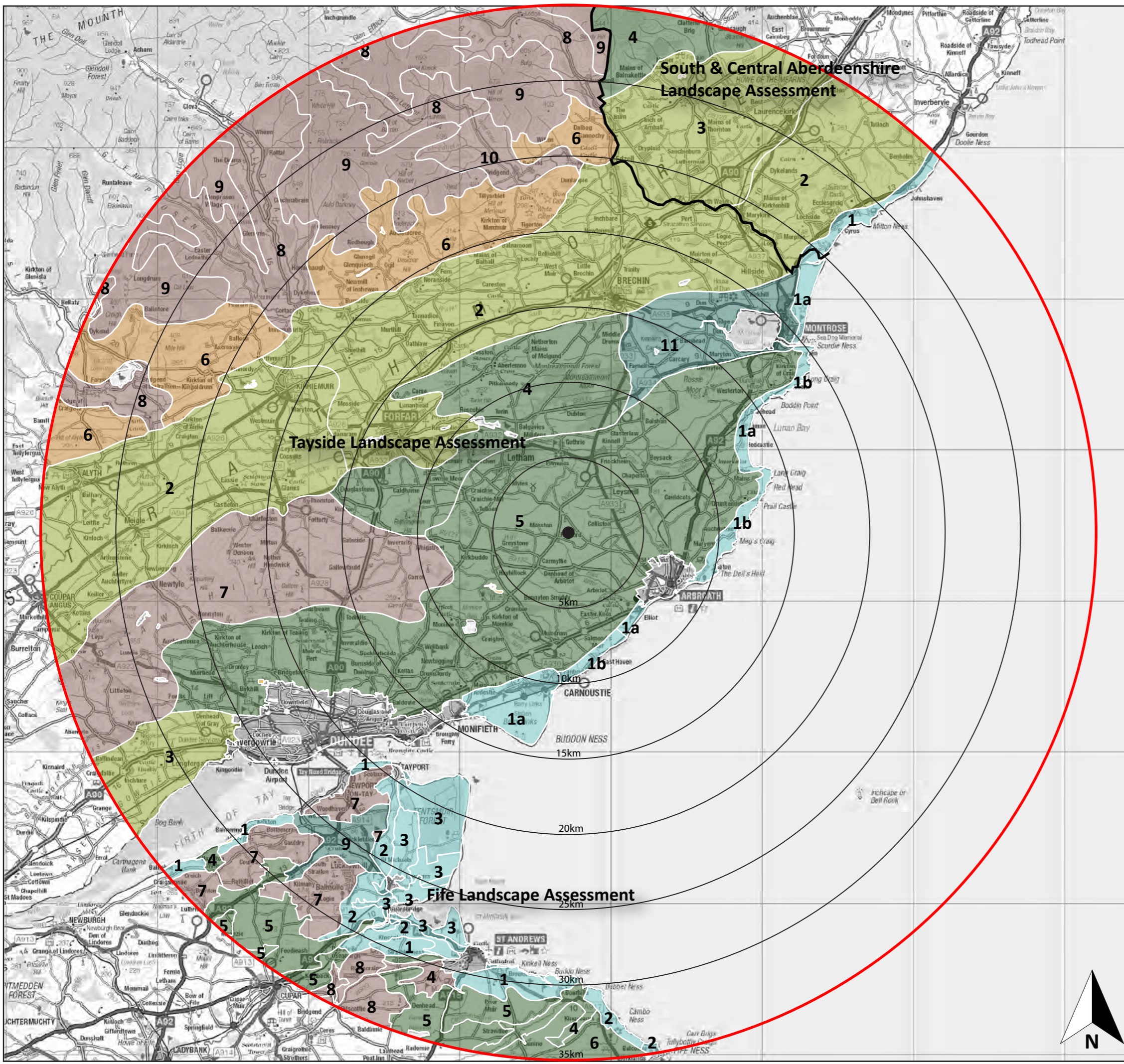
Checked by: **RC**

Approved By: **GM**

Date: **10/01/2014**

©Green Cat Renewables Ltd





Projects Name: **Crofts Farm Wind Turbines**
 Document Title: **Landscape Character Types**
 Scale: **1:250,000 @ A3**

- Key:
- Proposed Wind Turbines Location
 - 5, 10, 15, 20, 25 & 30km Radii from Wind Turbines Centre
 - Landscape and Visual Study Area (35km)

- Landscape Character Types:
- Tayside Landscape Assessment:**
- | | | | |
|----|-----------------------|----|-----------------------------|
| 1a | Coast with Sand | 6 | Highland Foothills |
| 1b | Coast with Cliffs | 7 | Igneous Hills |
| 2 | Broad Valley Lowlands | 8 | Mid Highland Glens |
| 3 | Firth Lowlands | 9 | Highland Summits & Plateaux |
| 4 | Low Moorland Hills | 10 | Upper Highland Glens |
| 5 | Dipslope Farmland | 11 | Lowland Basins |

- Fife Landscape Assessment:**
- | | | | |
|---|-------------------------|---|-----------------------------------|
| 1 | Coastal Hills | 6 | Lowland Sloping Farmland |
| 2 | Coastal Terrace | 7 | Upland Foothills |
| 3 | Coastal Flats | 8 | Volcanic Hills & Craigs |
| 4 | Lowland Dens | 9 | Lowland Glacial Meltwater Valleys |
| 5 | Lowland Hills & Valleys | | |


- South & Central Aberdeenshire Landscape Assessment:**
- | | |
|---|----------------------|
| 1 | Kincardine Links |
| 2 | Garvock & Glenbervie |
| 3 | Howe of the Mearns |
| 4 | The Mounth |

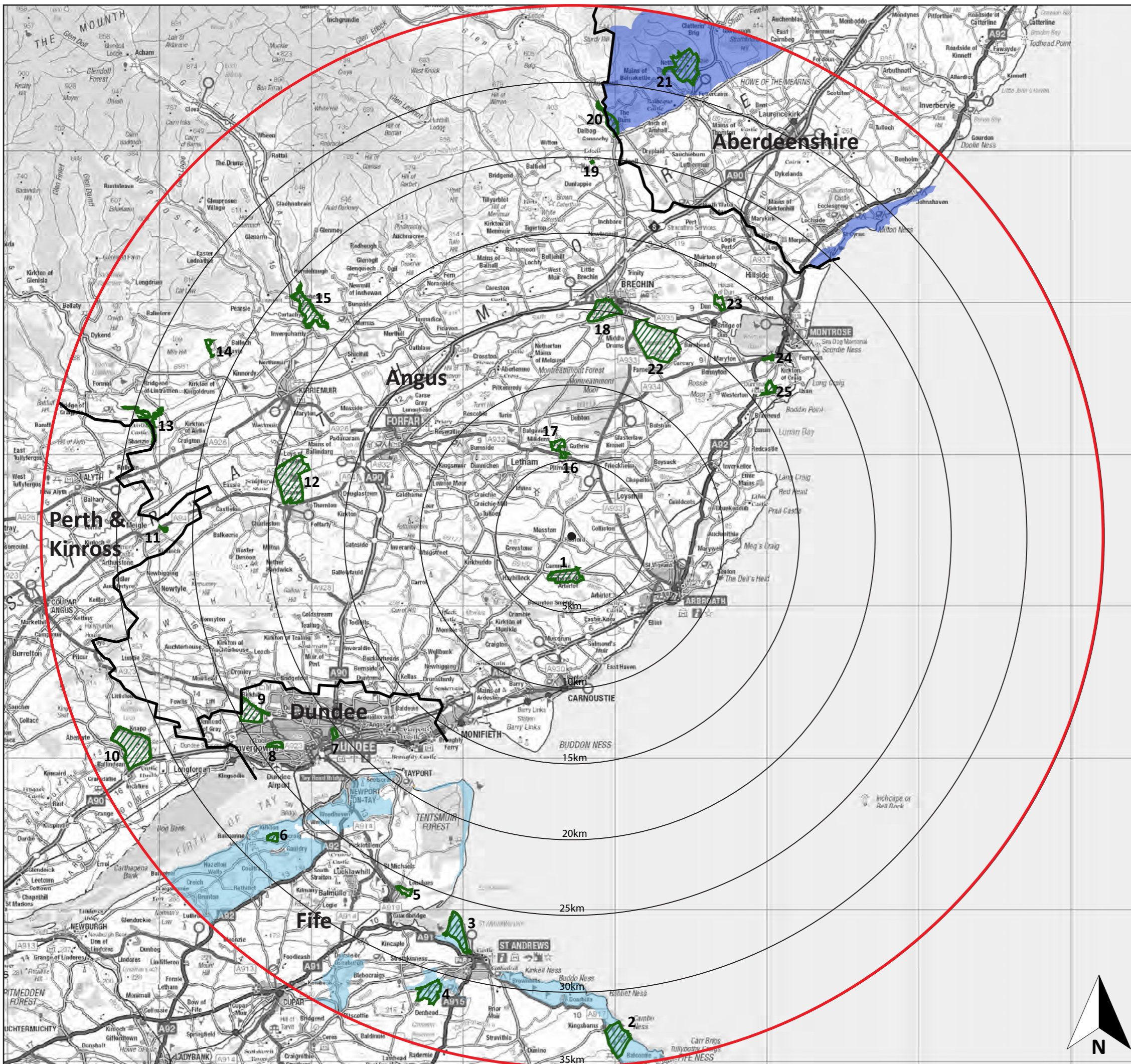
Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Client: **Crofts Farm Renewables Ltd.**
 Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.2**
 Version: **1.0**
 Author: **SS**
 Checked by: **RC**
 Approved By: **GM**
 Date: **10/01/2014**

©Green Cat Renewables Ltd












Project Name: **Crofts Farm Wind Turbines**

Document Title: **Landscape Designations**

Scale: **1:250,000 @ A3**

Key:

-  Proposed Wind Turbines Location
-  5, 10, 15, 20, 25 & 30km Radii from Wind Turbines Centre
-  Landscape and Visual Study Area (35km)
-  Local Authority Boundary
-  Special Landscape Areas
-  Areas of Landscape Significance
-  GDL Area and Identifier

- 1 - The Guynd
- 2 - Cambo
- 3 - St Andrews Link
- 4 - Craigtoun
- 5 - Earlsall
- 6 - Naughton
- 7 - Baxter Park
- 8 - Balgray Park
- 9 - Camperdown House
- 10 - Rossie Piory
- 11 - Drumkilbo
- 12 - Glamis Castle
- 13 - Airlie Castle
- 14 - Ascreavie
- 15 - Cortachy Castle
- 16 - House of Pitmuies
- 17 - Guthrie Castle
- 18 - Brechin Castle
- 19 - Edzell Castle
- 20 - The Burn
- 21 - Fasque House
- 22 - Kinnaird Castle
- 23 - House of Dun
- 24 - Craig House
- 25 - Dunninald

Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Client: **Crofts Farm Renewables Ltd.**

Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.3**

Version: **1.0**

Author: **SS**

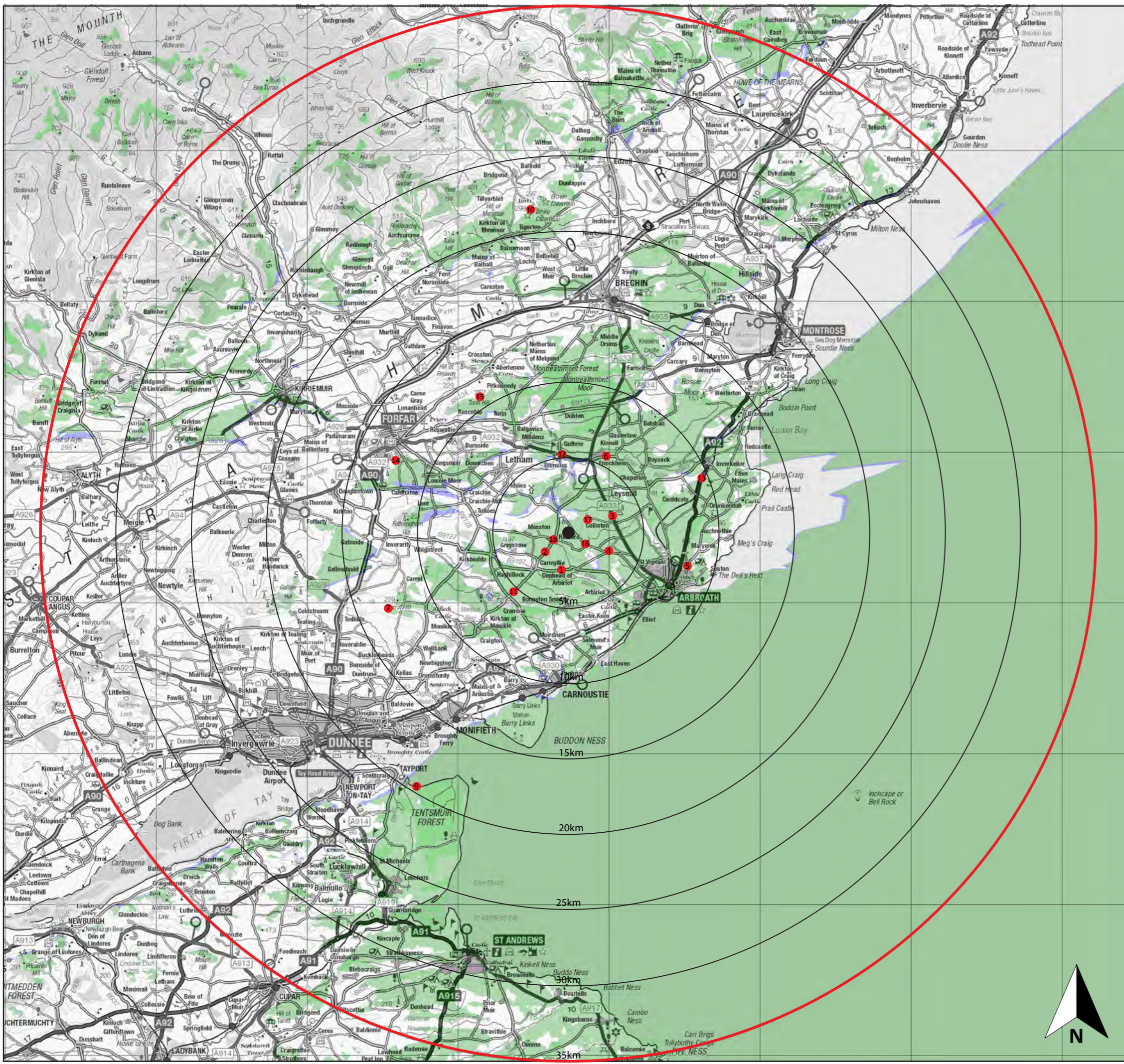
Checked by: **RC**

Approved By: **GM**

Date: **10/01/2014**

©Green Cat Renewables Ltd





Project Name: **Crofts Farm Wind Turbines**
 Document Title: **ZTV to 55m Hub Height**
 Scale: **1:250,000 @ A3**

- Key:
- Proposed Wind Turbines Location
 - 5, 10, 15, 20, 25 & 30km Radii from Wind Turbines Centre
 - Landscape and Visual Study Area (35km)
 - 1 Turbine Theoretically Visibility
 - 2 Turbines Theoretically Visibility
 - ① Viewpoint Locator & Identifier

Viewpoint Name:

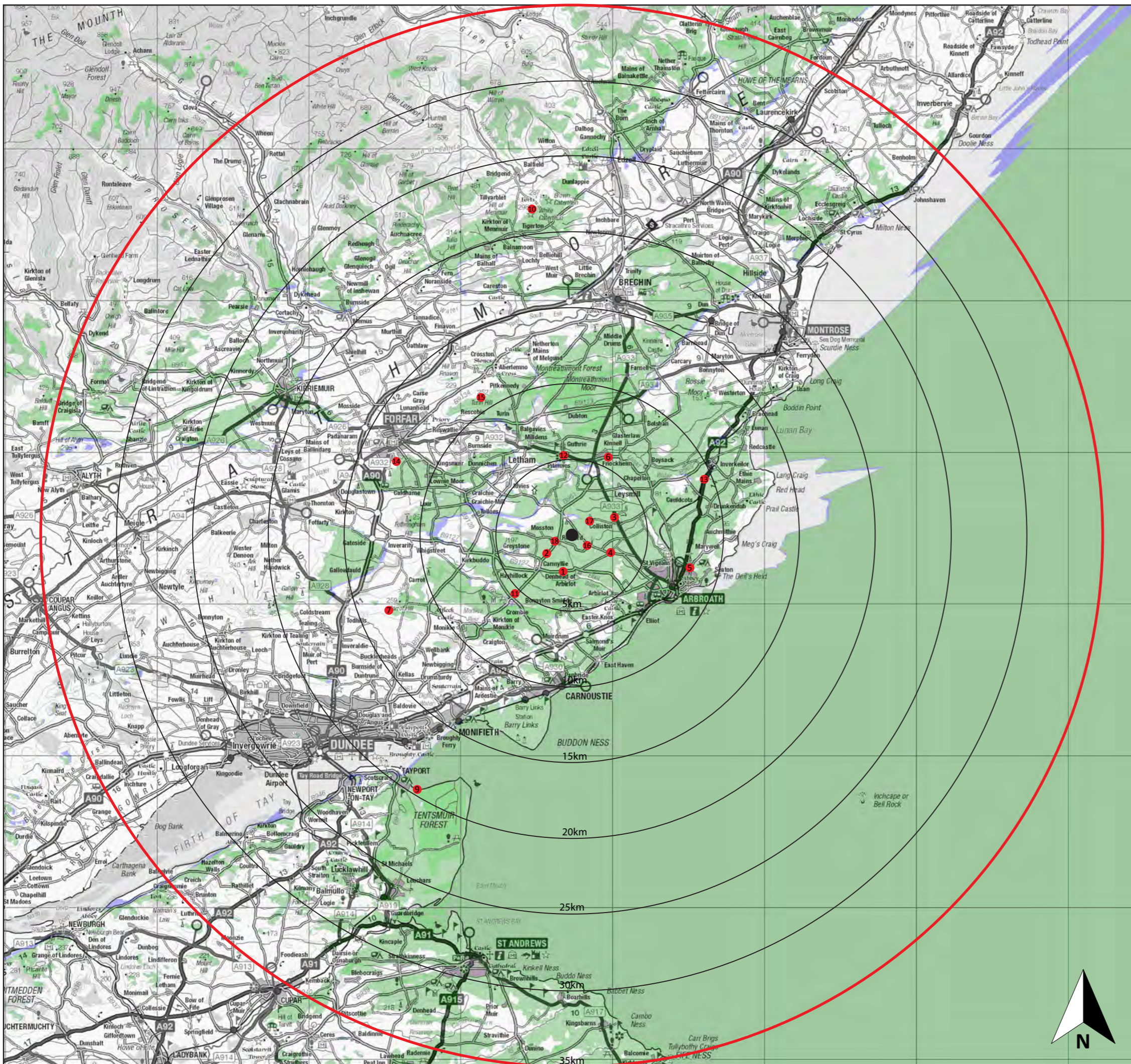
- 1 - The Guynd
- 2 - B961 near Newton
- 3 - A933 near Colliston
- 4 - Minor Road near Woodville Feus
- 5 - Arbroath
- 6 - Friockheim
- 7 - Dodd Hill
- 8 - Tentsmuir
- 9 - Kirriemuir Hill
- 10 - White Caterthun
- 11 - Crombie Park
- 12 - Pitmuies House
- 13 - A92 Inverkeiler
- 14 - Balmashanner Hill
- 15 - Turin Hill
- 16 - North of Drumyellow
- 17 - South of Parkconon
- 18 - Redford

Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Client: **Crofts Farm Renewables Ltd.**
 Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.4**
 Version: **1.0**
 Author: **SS**
 Checked by: **RC**
 Approved By: **GM**
 Date: **10/01/2014**





Project Name: **Crofts Farm Wind Turbines**

Document Title: **ZTV to 80m Tip Height**

Scale: **1:250,000 @ A3**

Key:

- Proposed Wind Turbines Location
- 5, 10, 15, 20, 25 & 30km Radii from Wind Turbines Centre
- Landscape and Visual Study Area (35km)
- 1 Turbine Theoretically Visibility
- 2 Turbines Theoretically Visibility
- Viewpoint Locator & Identifier

Viewpoint Name:

- 1 - The Guynd
- 2 - B961 near Newton
- 3 - A933 near Colliston
- 4 - Minor Road near Woodville Feus
- 5 - Arbroath
- 6 - Friockheim
- 7 - Dodd Hill
- 8 - Tentsmuir
- 9 - Kirriemuir Hill
- 10 - White Caterthun
- 11 - Crombie Park
- 12 - Pitmuies House
- 13 - A92 Inverkeiler
- 14 - Balmashanner Hill
- 15 - Turin Hill
- 16 - North of Drummyellow
- 17 - South of Parkconon
- 18 - Redford

Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Client: **Crofts Farm Renewables Ltd.**

Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.5**

Version: **1.0**

Author: **SS**

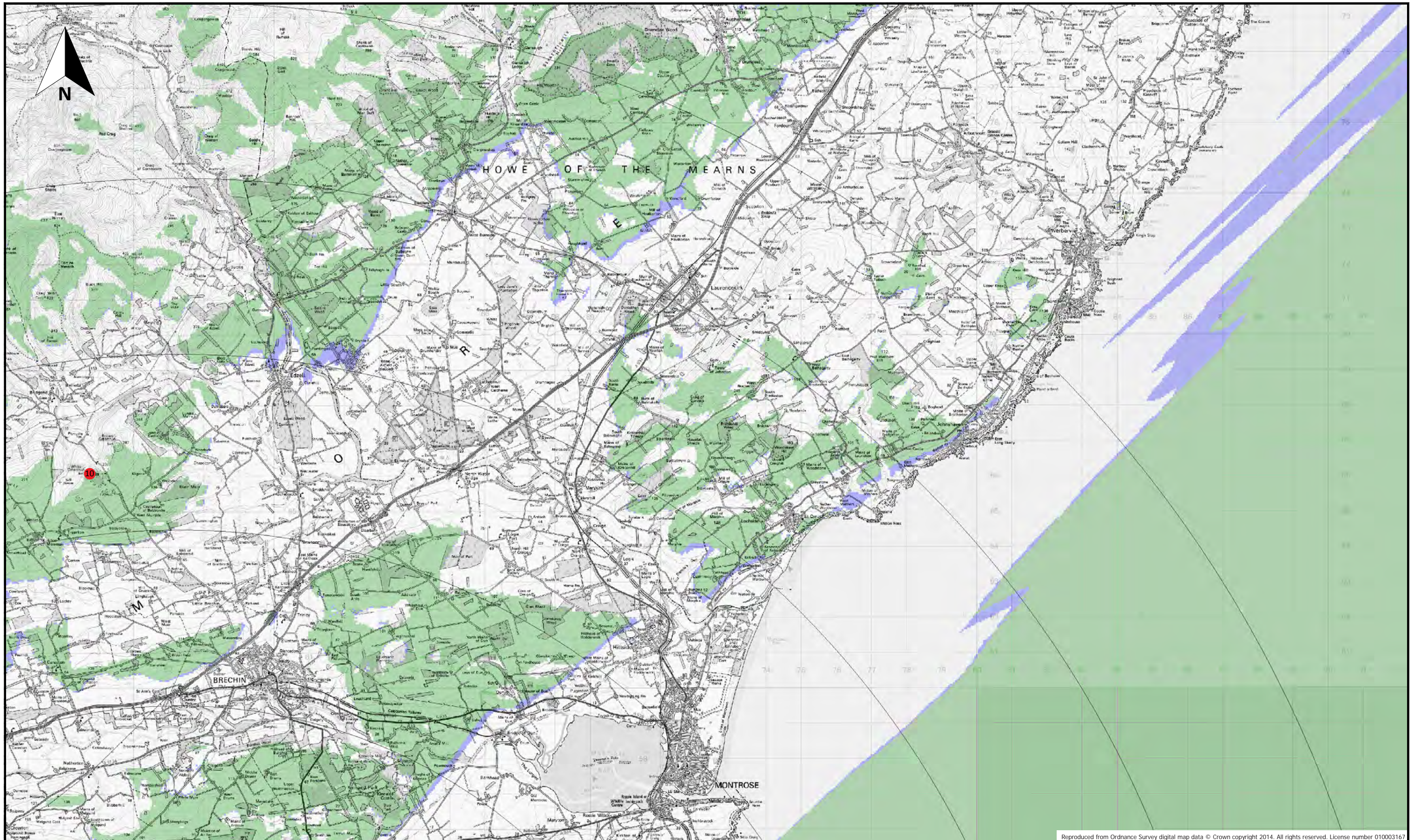
Checked by: **RC**

Approved By: **GM**

Date: **10/01/2014**

©Green Cat Renewables Ltd





Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Project Name: **Crofts Farm Wind Turbines**

Document Title: **Detailed ZTV to 80m Tip Height - North East Zone**

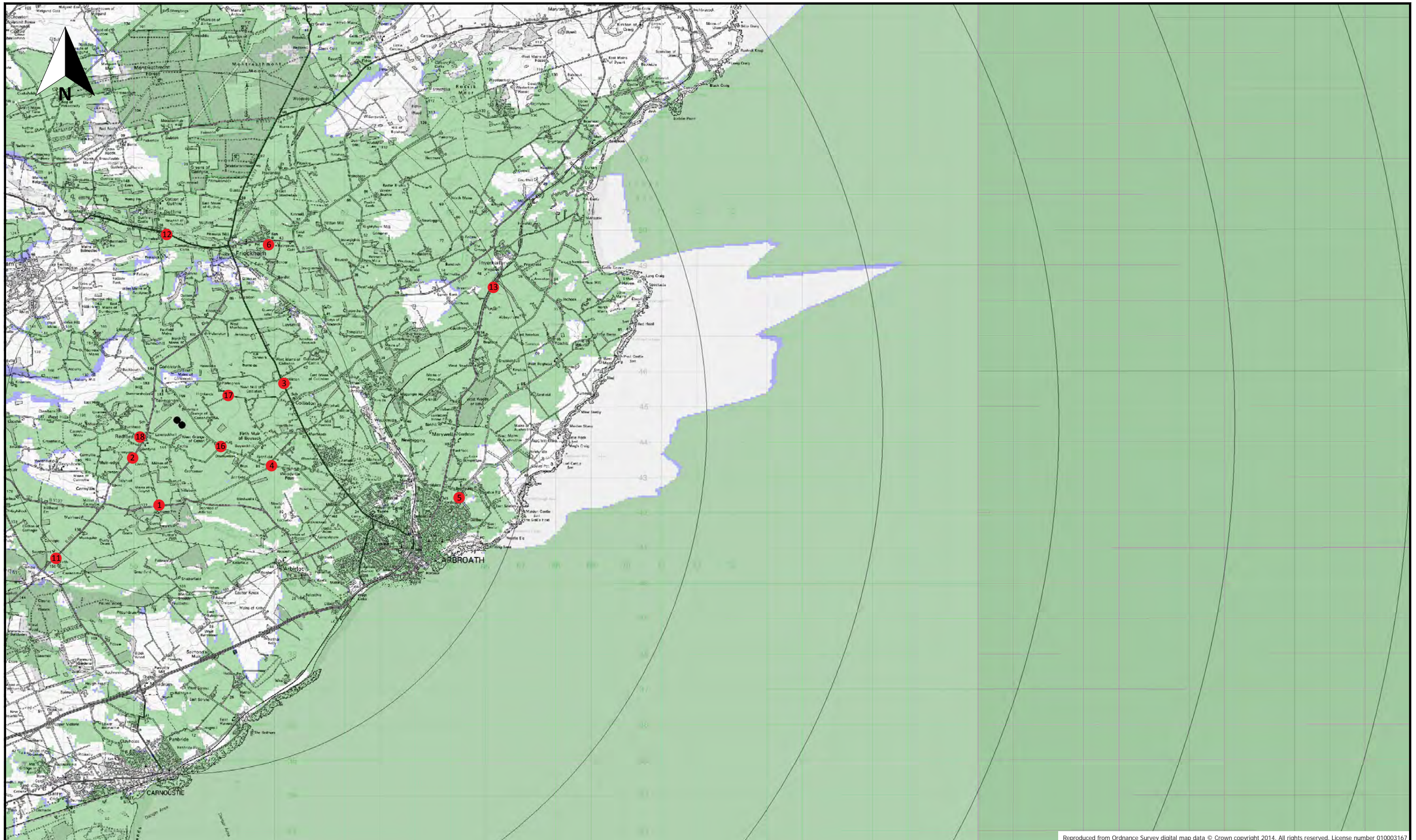
Scale: **1:100,000 @ A3**

●	Proposed Wind Turbine Locations	📍	Viewpoint Locator & Identifier
🟡	1 Turbine Theoretically Visible	<u>Viewpoint Name:</u>	
🟢	2 Turbines Theoretically Visible	1 - The Guynd	7 - Dodd Hill
—	5, 10, 15, 20, 25, 30 & 35km Radii from Wind Turbines Centre	2 - B961 near Newton	8 - Tentsmuir
		3 - A933 near Colliston	9 - Kirriemuir Hill
		4 - Minor Road near Woodville	10 - White Caterthun
		5 - Arbroath	11 - Crombie Park
		6 - Friockheim	12 - Pitmuies House
			13 - A92 Inverkeiler
			14 - Balmashanner Hill
			15 - Turin Hill
			16 - North of Drummyellow
			17 - South of Parkconnon
			18 - Redford

Document Number: **CO118-183/Fig 7.6a**
 Version: **1.0**
 Author: **SS**
 Checked by: **RC**
 Approved By: **GM**
 Date: **10/01/2014**

©Green Cat Renewables Ltd






Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

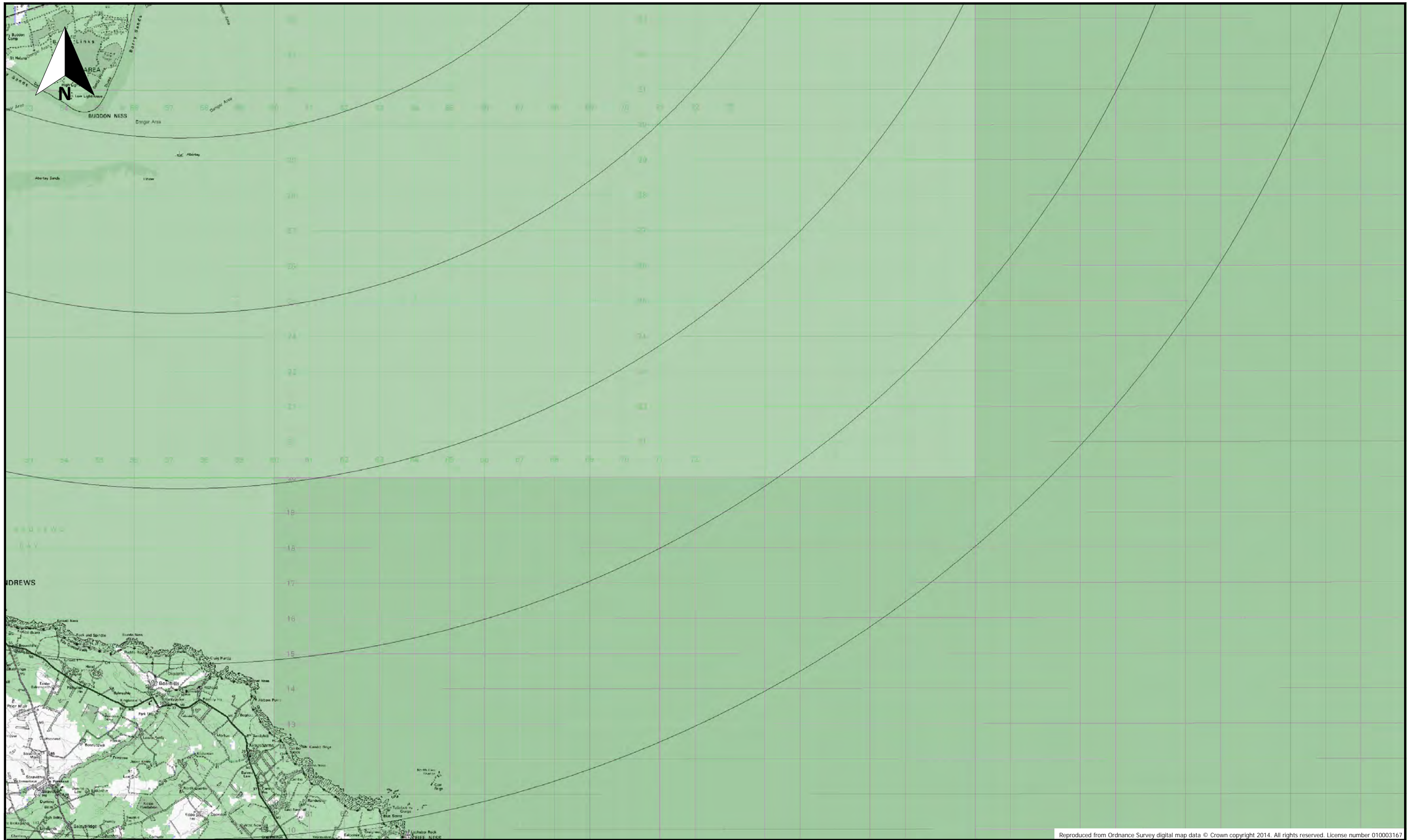
Project Name: **Crofts Farm Wind Turbines**
 Document Title: **Detailed ZTV to 80m Tip Height - East Zone**
 Scale: **1:100,000 @ A3**

Key:		Viewpoint Locator & Identifier	
●	Proposed Wind Turbine Locations	Viewpoint Name:	
■ (light green)	1 Turbine Theoretically Visible	1 - The Guynd	7 - Dodd Hill
■ (medium green)	2 Turbines Theoretically Visible	2 - B961 near Newton	8 - Tentsmuir
○ (with radii lines)	5, 10, 15, 20, 25, 30 & 35km Radii from Wind Turbines Centre	3 - A933 near Colliston	9 - Kirriemuir Hill
		4 - Minor Road near Woodville	10 - White Caterthun
		5 - Arbroath	11 - Crombie Park
		6 - Frickheim	12 - Pitmuies House
			13 - A92 Inverkeiler
			14 - Balmashanner Hill
			15 - Turin Hill
			16 - North of Drumyellow
			17 - South of Parkconnon
			18 - Redford

Document Number: **CO118-183/Fig 7.6b**
 Version: **1.0**
 Author: **SS**
 Checked by: **RC**
 Approved By: **GM**
 Date: **10/01/2014**

©Green Cat Renewables Ltd






Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

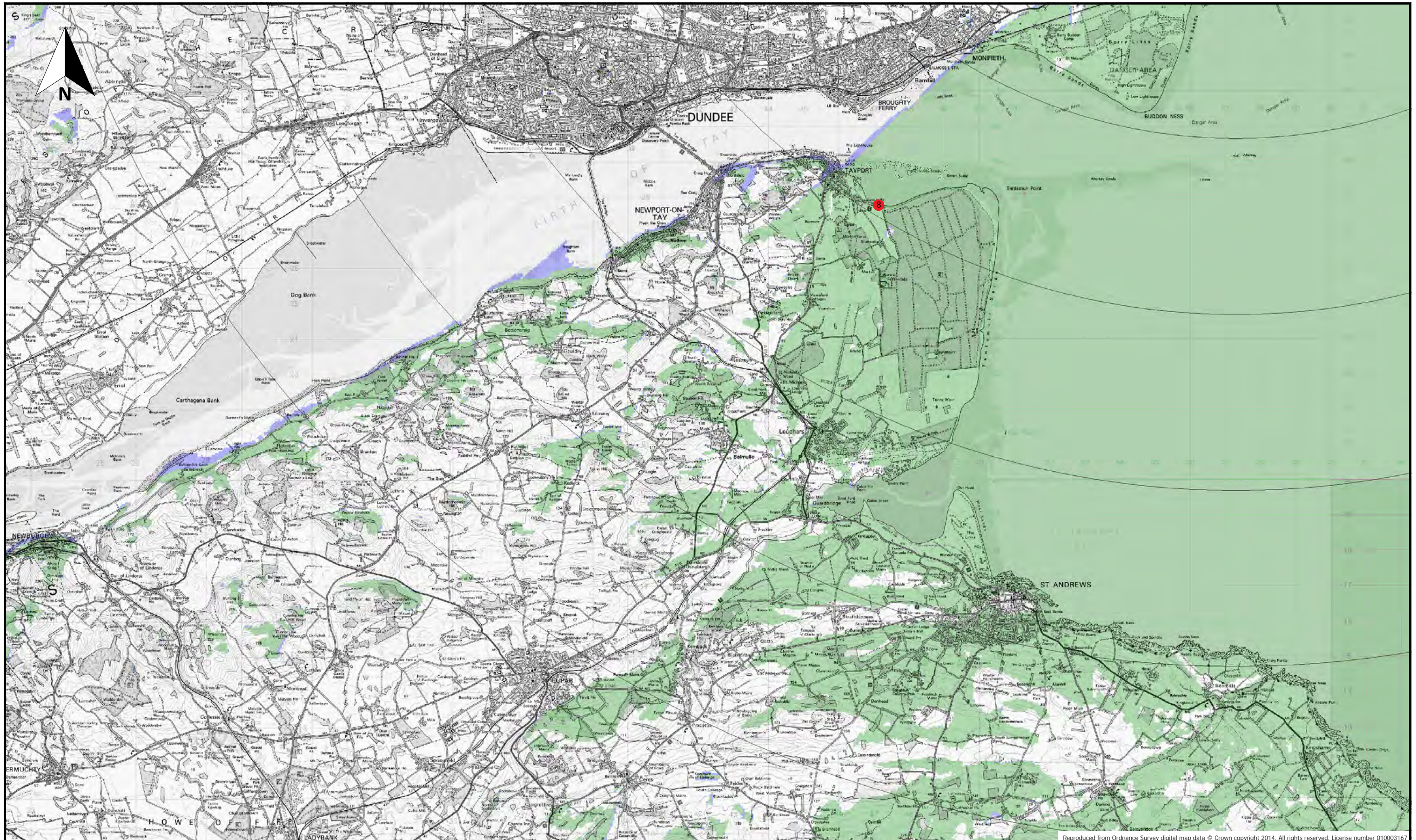
Project Name: **Crofts Farm Wind Turbines**
 Document Title: **Detailed ZTV to 80m Tip Height - South East Zone**
 Scale: **1:100,000 @ A3**

Key:		Viewpoint Locator & Identifier		
●	Proposed Wind Turbine Locations	Viewpoint Name: 1 - The Guynd 7 - Dodd Hill 13 - A92 Inverkeiler 2 - B961 near Newton 8 - Tentsmuir 14 - Balmashanner Hill 3 - A933 near Colliston 9 - Kirriemuir Hill 15 - Turin Hill 4 - Minor Road near Woodville 10 - White Caterthun 16 - North of Drummyellow 5 - Arbroath 11 - Crombie Park 17 - South of Parkconnon 6 - Friockheim 12 - Pitmuies House 18 - Redford		
■	1 Turbine Theoretically Visible			
■	2 Turbines Theoretically Visible			
—	5, 10, 15, 20, 25, 30 & 35km Radii from Wind Turbines Centre			
Ⓡ				

Document Number: **CO118-183/Fig 7.6c**
 Version: **1.0**
 Author: **SS**
 Checked by: **RC**
 Approved By: **GM**
 Date: **10/01/2014**

©Green Cat Renewables Ltd





Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Project Name: **Crofts Farm Wind Turbines**

Document Title: **Detailed ZTV to 80m Tip Height - South West Zone**

Scale: **1:100,000 @ A3**

- Key:
- Proposed Wind Turbine Locations
 - 1 Turbine Theoretically Visible
 - 2 Turbines Theoretically Visible
 - 5, 10, 15, 20, 25, 30 & 35km Radii from Wind Turbines Centre

① Viewpoint Locator & Identifier

Viewpoint Name:

- | | | |
|-------------------------------|----------------------|---------------------------|
| 1 - The Guynd | 7 - Dodd Hill | 13 - A92 Inverkeiler |
| 2 - B961 near Newton | 8 - Tentsmuir | 14 - Balmashanner Hill |
| 3 - A933 near Colliston | 9 - Kirriemuir Hill | 15 - Turin Hill |
| 4 - Minor Road near Woodville | 10 - White Caterthun | 16 - North of Drummyellow |
| 5 - Arbroath | 11 - Crombie Park | 17 - South of Parkconnon |
| 6 - Frockheim | 12 - Pitmuies House | 18 - Redford |

Document Number:

CO118-183/Fig 7.6d

Version:

1.0

Author:

SS

Checked by:

RC

Approved By:

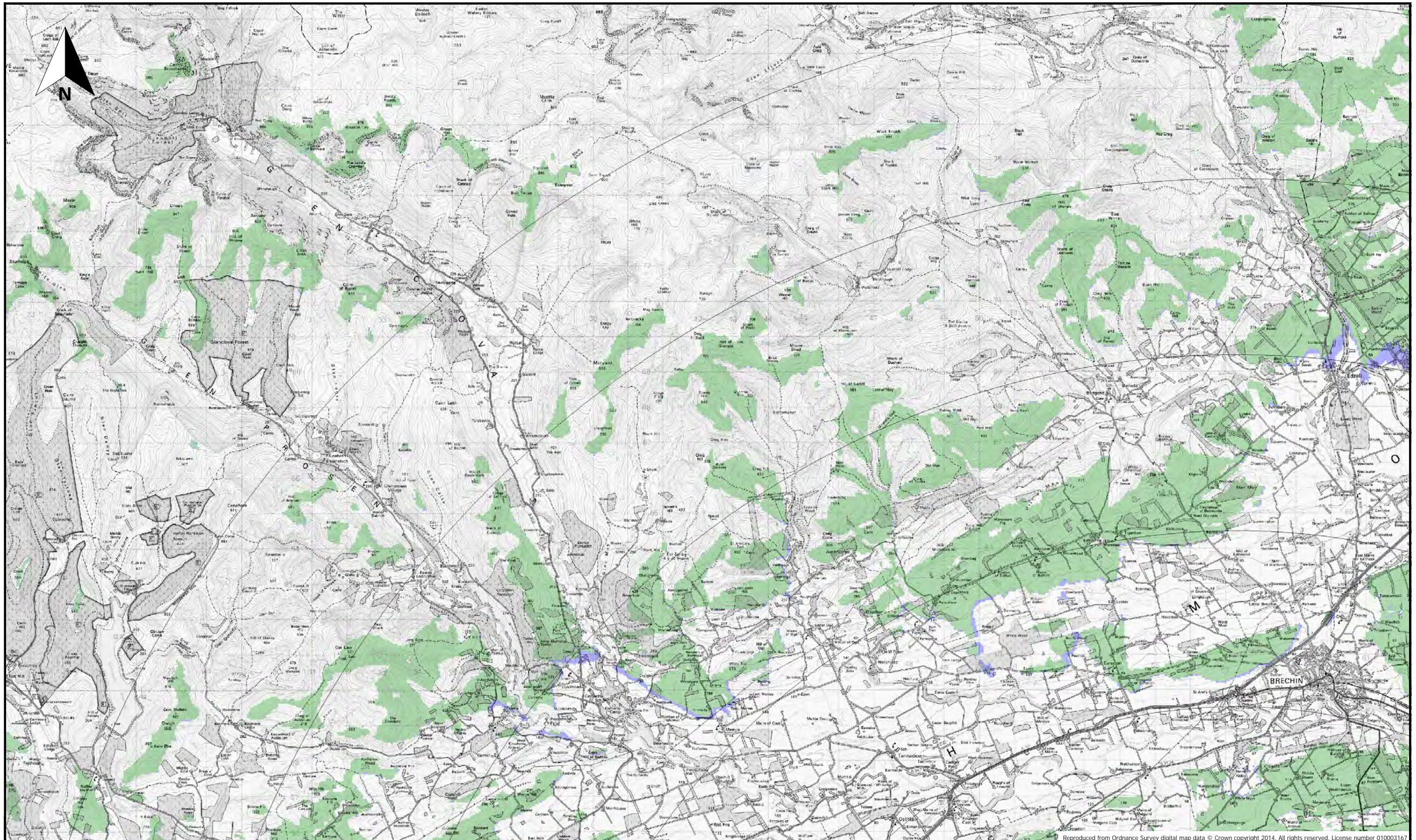
GM

Date:

10/01/2014

©Green Cat Renewables Ltd





Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Project Name: **Crofts Farm Wind Turbines**

Document Title: **Detailed ZTV to 80m Tip Height - North West Zone**

Scale: **1:100,000 @ A3**

- Key:**
- Proposed Wind Turbine Locations
 - 1 Turbine Theoretically Visible
 - 2 Turbines Theoretically Visible
 - 5, 10, 15, 20, 25, 30 & 35km Radii from Wind Turbines Centre

📍 Viewpoint Locator & Identifier

Viewpoint Name:

- | | | |
|-------------------------------|----------------------|---------------------------|
| 1 - The Guynd | 7 - Dodd Hill | 13 - A92 Inverkeiler |
| 2 - B961 near Newton | 8 - Tentsmuir | 14 - Balmashanner Hill |
| 3 - A933 near Colliston | 9 - Kirriemuir Hill | 15 - Turin Hill |
| 4 - Minor Road near Woodville | 10 - White Caterthun | 16 - North of Drummyellow |
| 5 - Arbroath | 11 - Crombie Park | 17 - South of Parkconnon |
| 6 - Friockheim | 12 - Pitmuies House | 18 - Redford |

Document Number:

CO118-183/Fig 7.6f

Version:

1.0

Author:

SS

Checked by:

RC

Approved By:

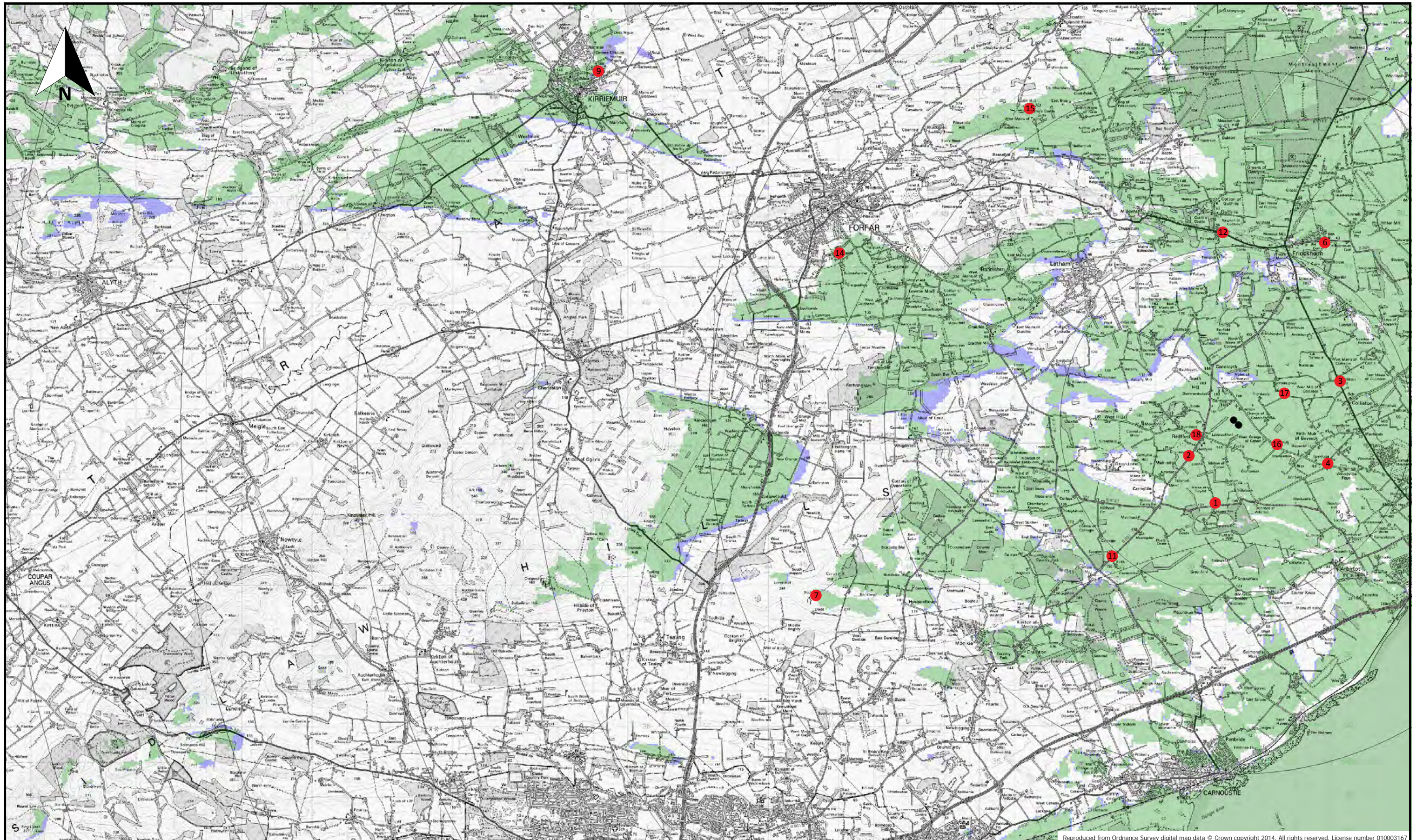
GM

Date:

10/01/2014

©Green Cat Renewables Ltd





Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Project Name: **Crofts Farm Wind Turbines**

Document Title: **Detailed ZTV to 80m Tip Height - West Zone**

Scale: **1:100,000 @ A3**

- Key:
- Proposed Wind Turbine Locations
 - 1 Turbine Theoretically Visible
 - 2 Turbines Theoretically Visible
 - 5, 10, 15, 20, 25, 30 & 35km Radii from Wind Turbines Centre

① Viewpoint Locator & Identifier

Viewpoint Name:

- | | | |
|-------------------------------|----------------------|---------------------------|
| 1 - The Guynd | 7 - Dodd Hill | 13 - A92 Inverkeiler |
| 2 - B961 near Newton | 8 - Tentsmuir | 14 - Balmashanner Hill |
| 3 - A933 near Colliston | 9 - Kirriemuir Hill | 15 - Turin Hill |
| 4 - Minor Road near Woodville | 10 - White Caterthun | 16 - North of Drummyellow |
| 5 - Arbroath | 11 - Crombie Park | 17 - South of Parkconnon |
| 6 - Frickheim | 12 - Pitmuies House | 18 - Redford |

Document Number:

CO118-183/Fig 7.6e

Version:

1.0

Author:

SS

Checked by:

RC

Approved By:

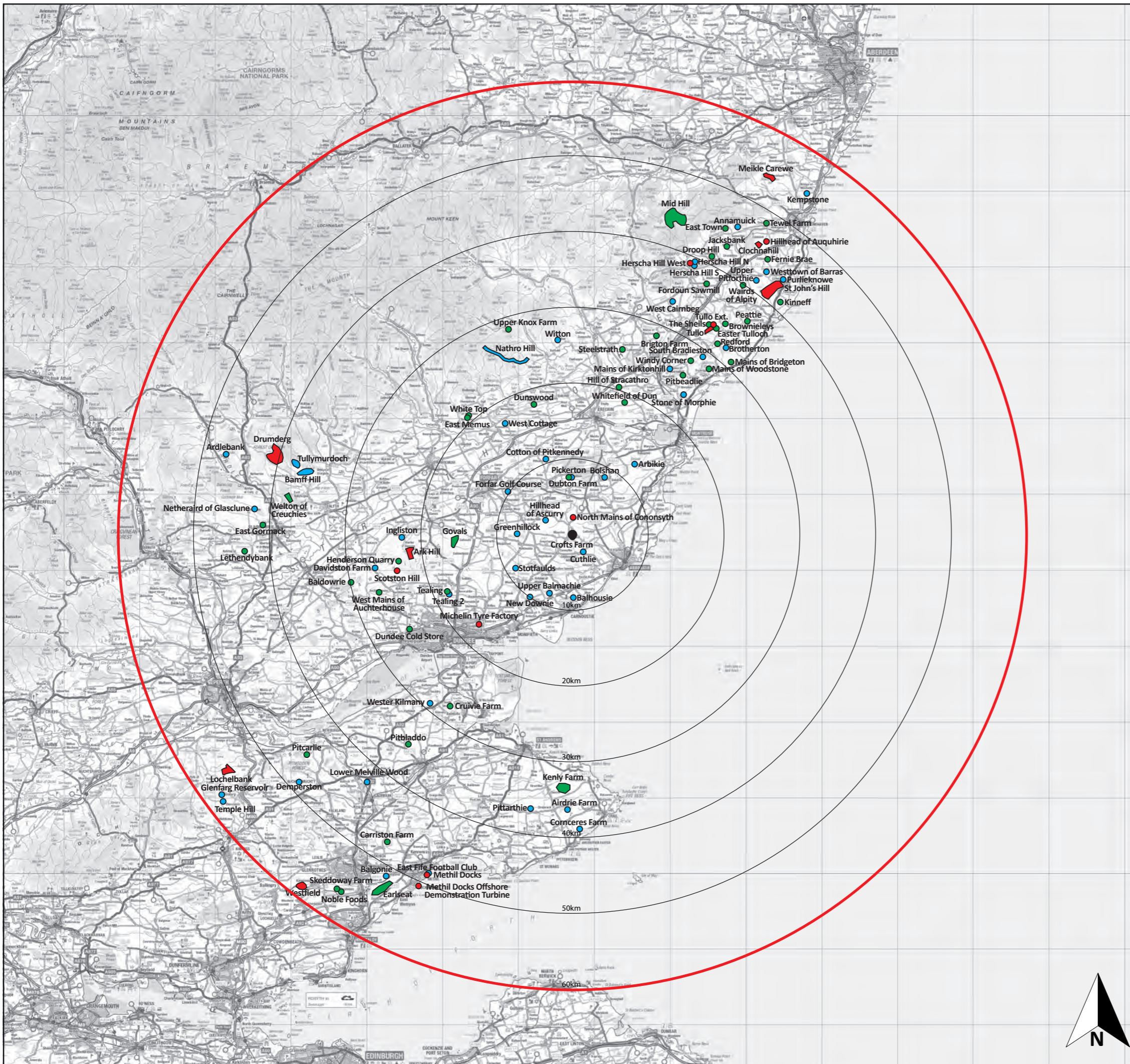
GM

Date:

10/01/2014

©Green Cat Renewables Ltd





Project Name: **Crofts Farm Wind Turbines**

Document Title: **Cumulative Basemap**

Scale: **1:500,000 @ A3**

Key:

- Proposed Wind Turbines Location
- 10, 20, 30, 40 & 50km Radii from Wind turbines Centre
- Cumulative Study Area (60km)

3 Turbines or Fewer

- Operational
- Consented
- Planning

4 or more Turbines

- Operational
- Consented
- Planning

Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Client: **Crofts Farm Renewables Ltd.**

Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.7**

Version: **1.0**

Author: **SS**

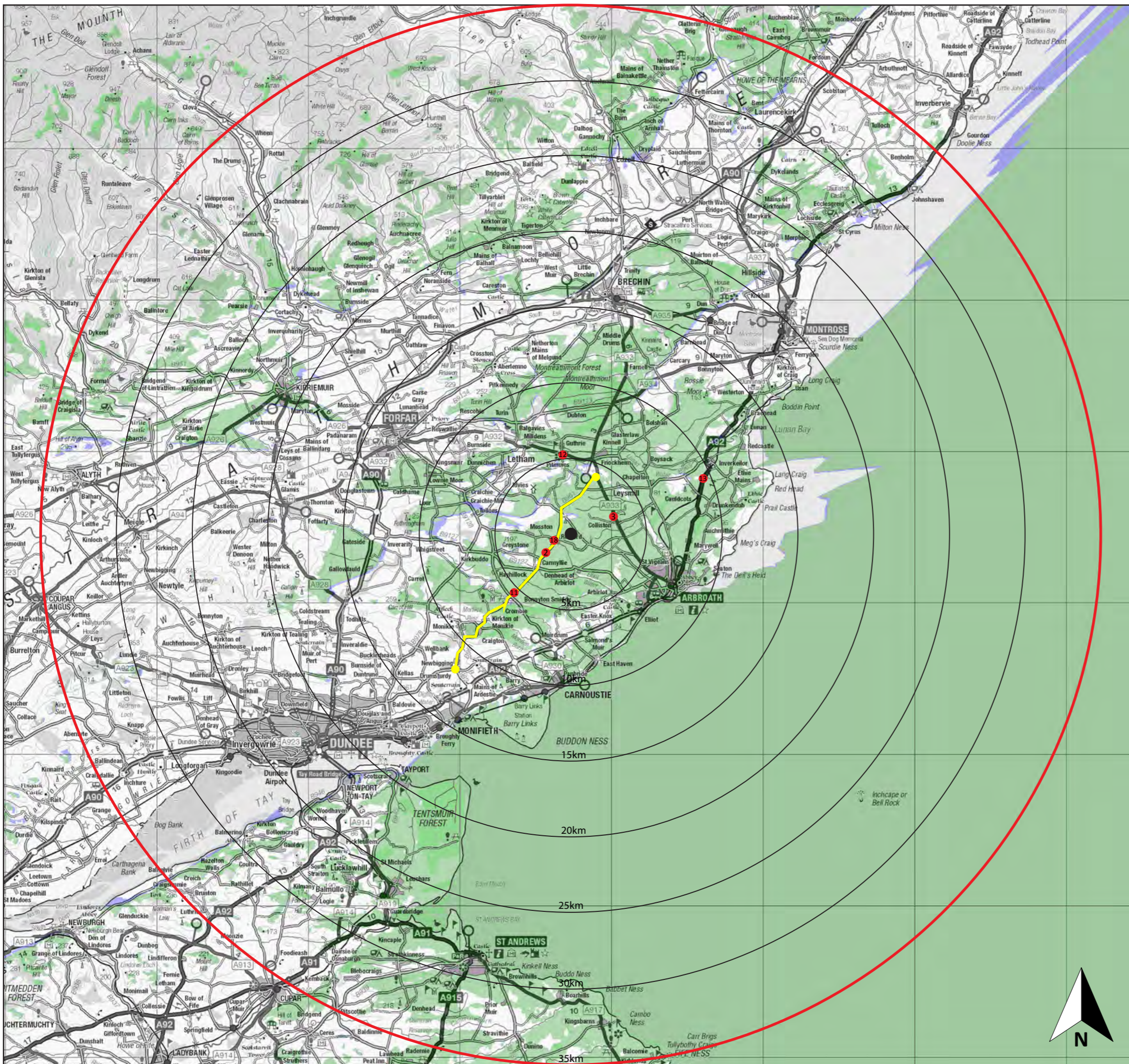
Checked by: **RC**

Approved By: **GM**

Date: **10/01/2014**

©Green Cat Renewables Ltd












Project Name: **Crofts Farm Wind Turbines**

Document Title: **Route Assessment**

Scale: **1:250,000 @ A3**

Key:

-  Proposed Wind Turbines Location
-  5, 10, 15, 20, 25 & 30km Radii from Wind Turbines Centre
-  Landscape and Visual Study Area (35km)
-  1 Turbine Theoretically Visibility
-  2 Turbines Theoretically Visibility
-  B961, Newbiggin to A933 (south of Frickheim)
-  Viewpoint Locator & Identifier

Viewpoint Name:

- 2 - B961 near Newton
- 3 - A933 near Colliston
- 11- Crombie Park
- 12 - Pitmuies/A923
- 13 - A92 Inverkeilor
- 18 - Redford

Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Client: **Crofts Farm Renewables Ltd.**

Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.8**

Version: **1.0**

Author: **SS**

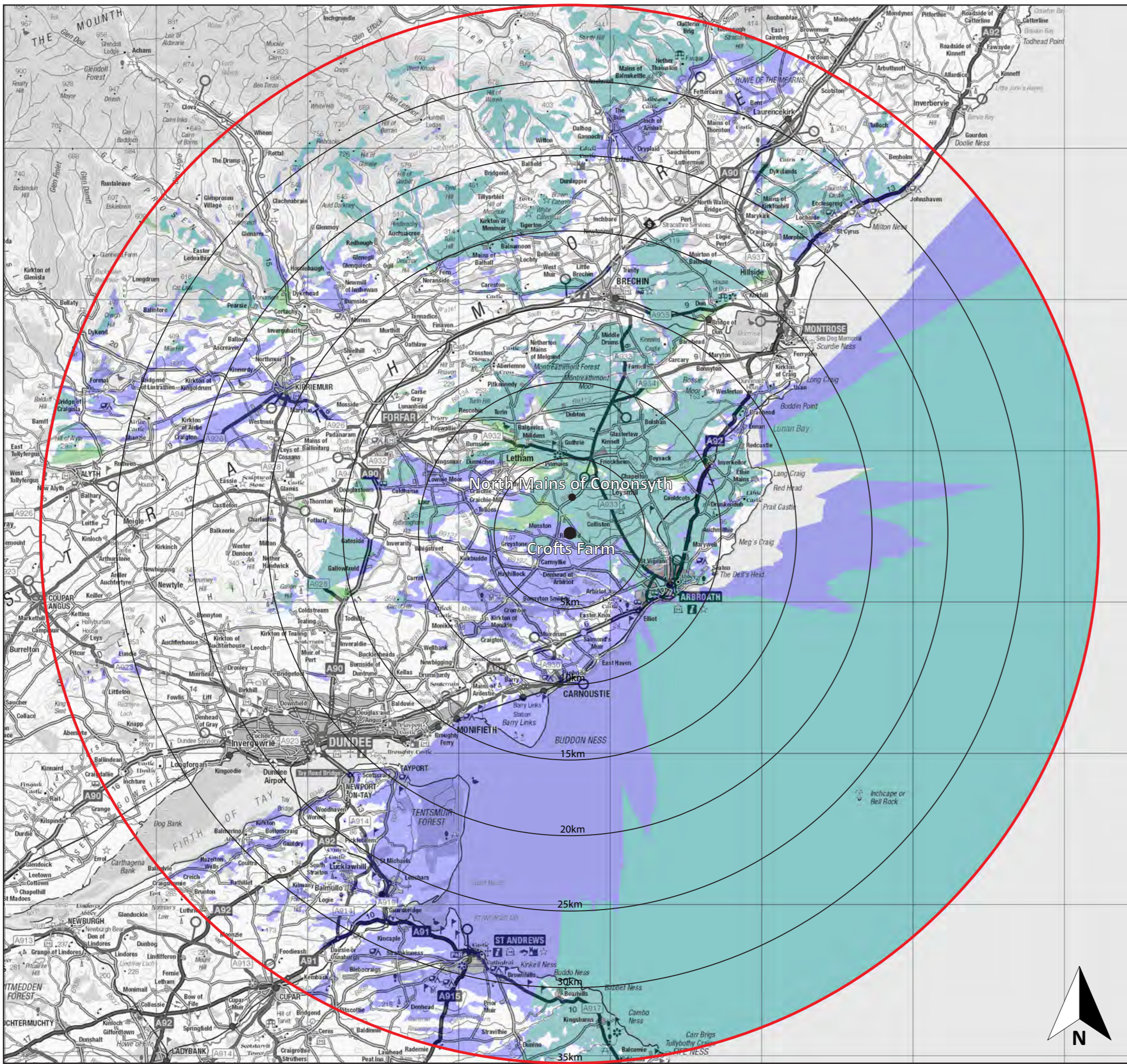
Checked by: **RC**

Approved By: **GM**

Date: **10/01/2014**

©Green Cat Renewables Ltd





Project Name: **Crofts Farm Wind Turbines**
 Document Title: **Cumulative ZTV to Tip Height for 35km Radii - North Mains of Cononsyth (Operational)**
 Scale: **1:250,000 @ A3**

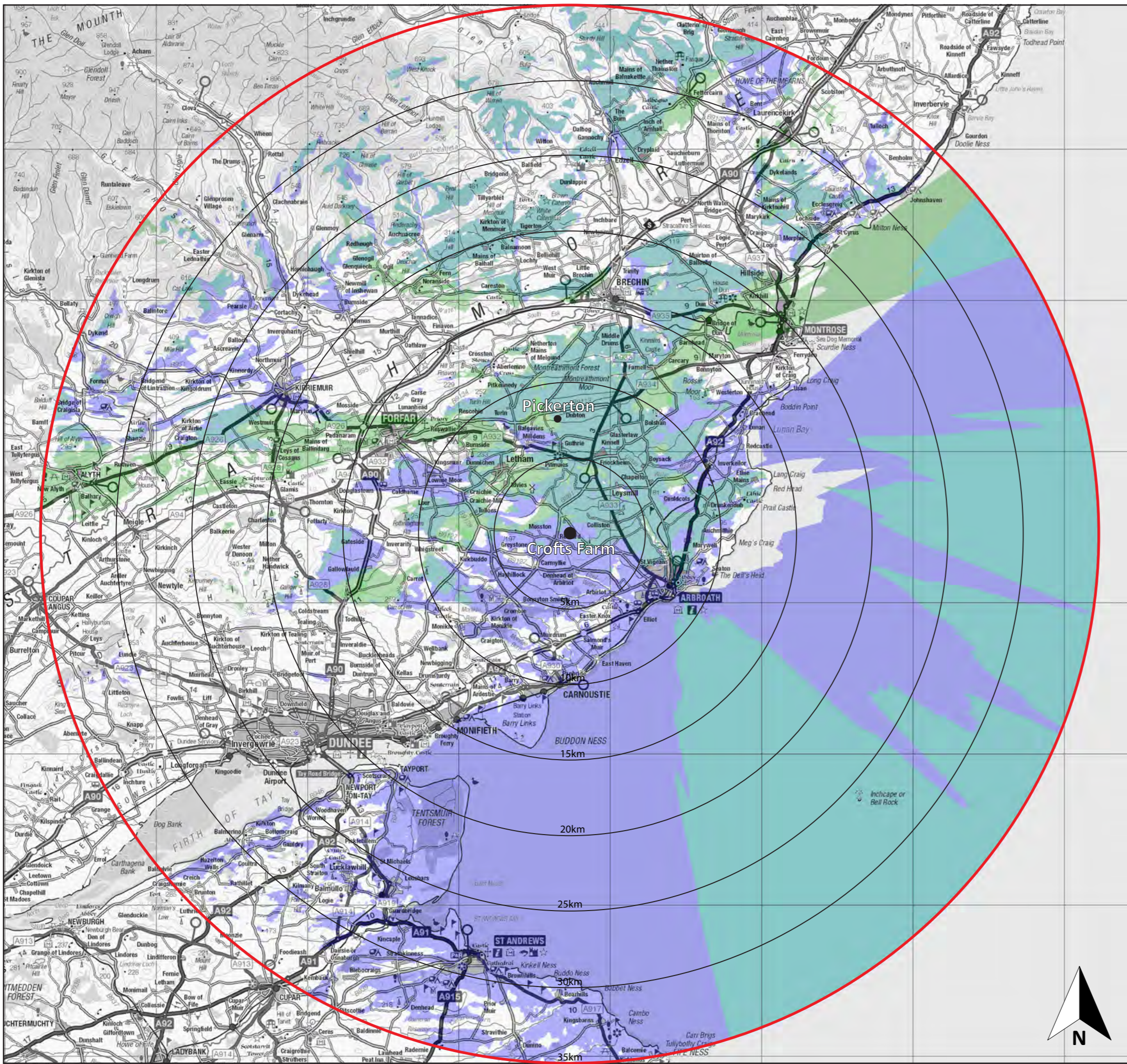
- Key:
- Proposed Turbines Location
 - Other Project Location
 - 5, 10, 15, 20, 25 & 30km Radii from Wind Turbines Centre
 - Landscape and Visual Study Area (35km)
-
- Crofts Farm Visible
 - North Mains of Cononsyth Visible
 - Crofts Farm & North Mains of Cononsyth Visible

Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Client: **Crofts Farm Renewables Ltd.**
 Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.9a**
 Version: **1.0**
 Author: **SS**
 Checked by: **RC**
 Approved By: **GM**
 Date: **10/01/2014**





Project Name: **Crofts Farm Wind Turbines**
 Document Title: **Cumulative ZTV to Tip Height for 35km Radii - Pickerton (Consented)**
 Scale: **1:250,000 @ A3**

- Key:
- Proposed Turbines Location
 - Other Project Location
 - 5, 10, 15, 20, 25 & 30km Radii from Wind Turbines Centre
 - Landscape and Visual Study Area (35km)

- Crofts Farm Visible
- Pickerton Visible
- Crofts Farm & Pickerton Visible

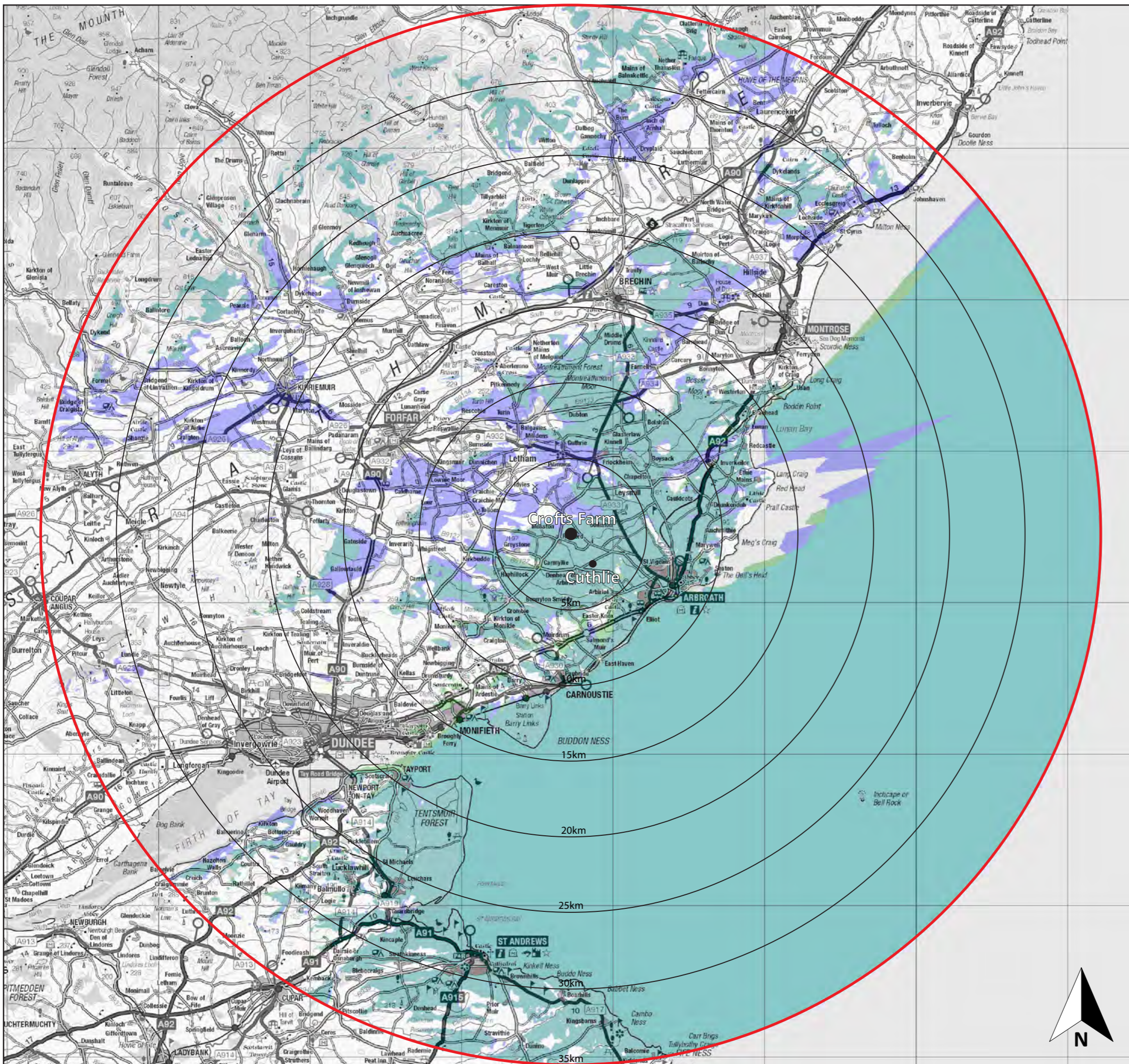
Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Client: **Crofts Farm Renewables Ltd.**
 Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.10a**
 Version: **1.0**
 Author: **SS**
 Checked by: **RC**
 Approved By: **GM**
 Date: **10/01/2014**

©Green Cat Renewables Ltd





Project Name: **Crofts Farm Wind Turbines**
 Document Title: **Cumulative ZTV to Tip Height for 35km Radii - Cuthlie (Planning)**
 Scale: **1:250,000 @ A3**

- Key:
- Proposed Turbines Location
 - Other Project Location
 - 5, 10, 15, 20, 25 & 30km Radii from Wind Turbines Centre
 - Landscape and Visual Study Area (35km)

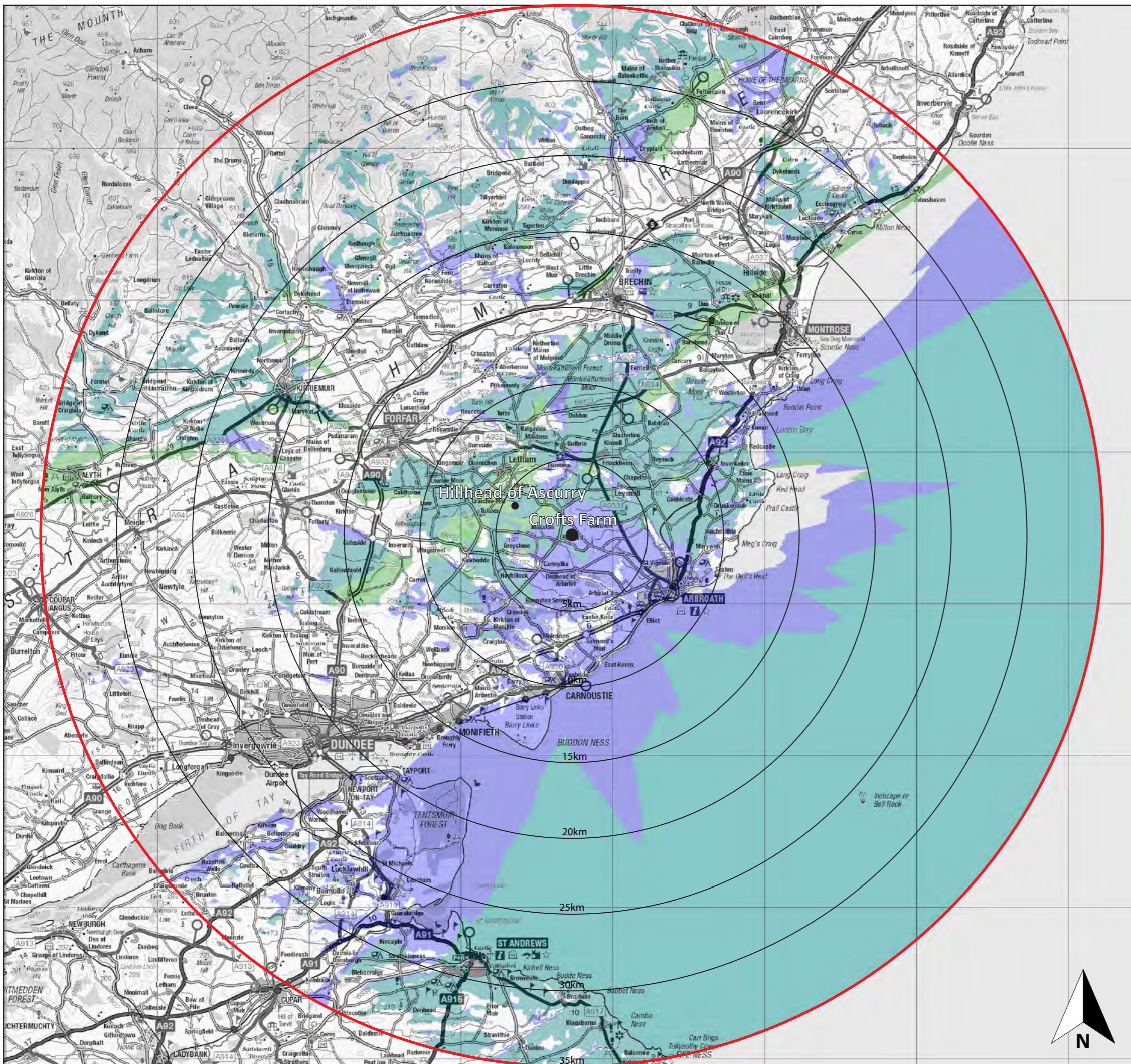
- Crofts Farm Visible
- Cuthlie Visible
- Crofts Farm & Cuthlie Visible

Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Client: **Crofts Farm Renewables Ltd.**
 Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.11a**
 Version: **1.0**
 Author: **SS**
 Checked by: **RC**
 Approved By: **GM**
 Date: **10/01/2014**





Project Name: **Crofts Farm Wind Turbines**
 Document Title: **Cumulative ZTV to Tip Height for 35km Radii - Hillhead of Ascurry (Planning)**
 Scale: **1:250,000 @ A3**

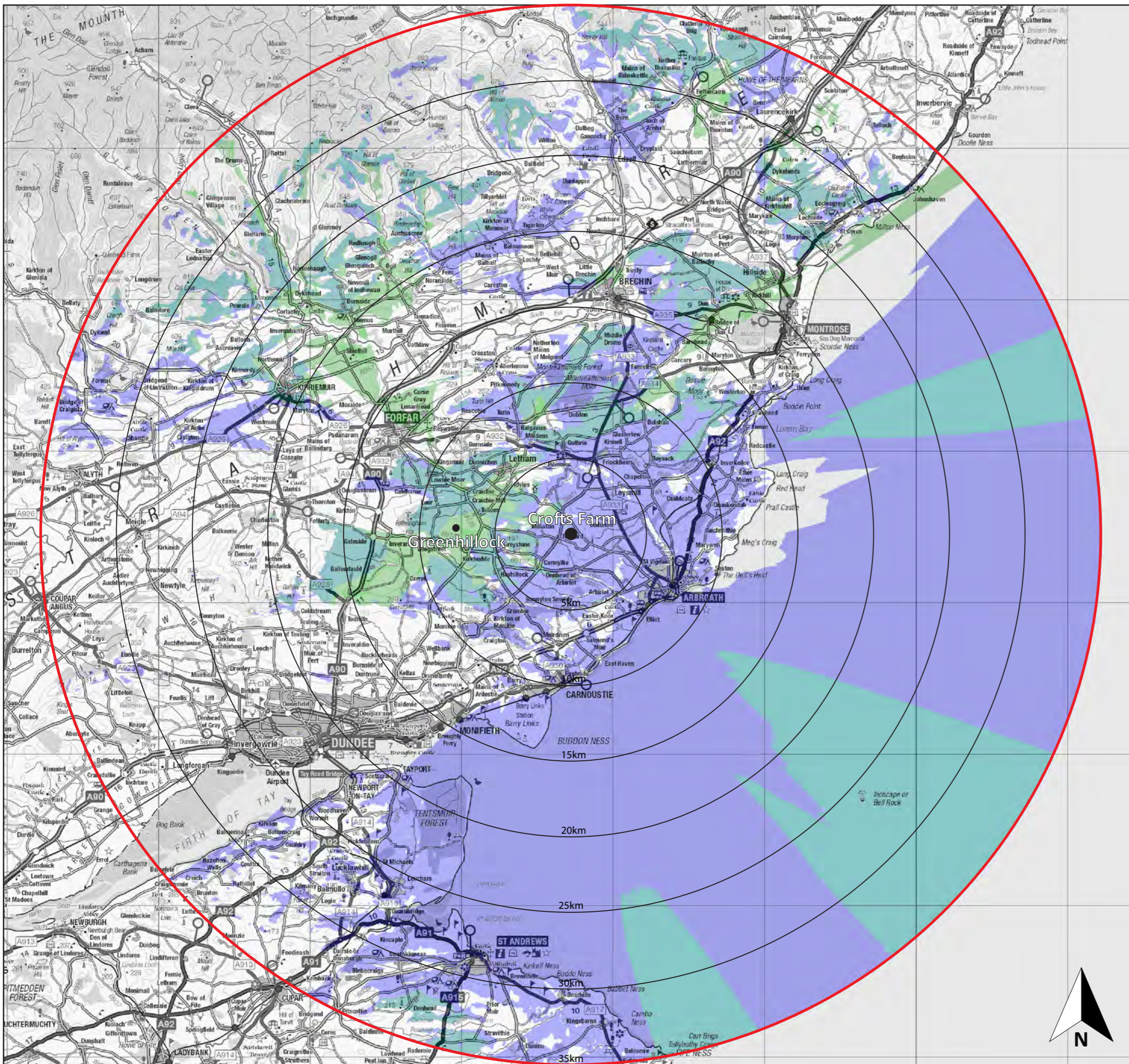
- Key:
- Proposed Turbines Location
 - Other Project Location
 - 5, 10, 15, 20, 25 & 30km Radii from Wind Turbines Centre
 - Landscape and Visual Study Area (35km)
-
- Crofts Farm Visible
 - Hillhead of Ascurry Visible
 - Crofts Farm & Hillhead of Ascurry Visible

Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Client: **Crofts Farm Renewables Ltd.**
 Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.11b**
 Version: **1.0**
 Author: **SS**
 Checked by: **RC**
 Approved By: **GM**
 Date: **10/01/2014**





Project Name: **Crofts Farm Wind Turbines**
 Document Title: **Cumulative ZTV to Tip Height for 35km Radii - Greenhillock (Planning)**
 Scale: **1:250,000 @ A3**

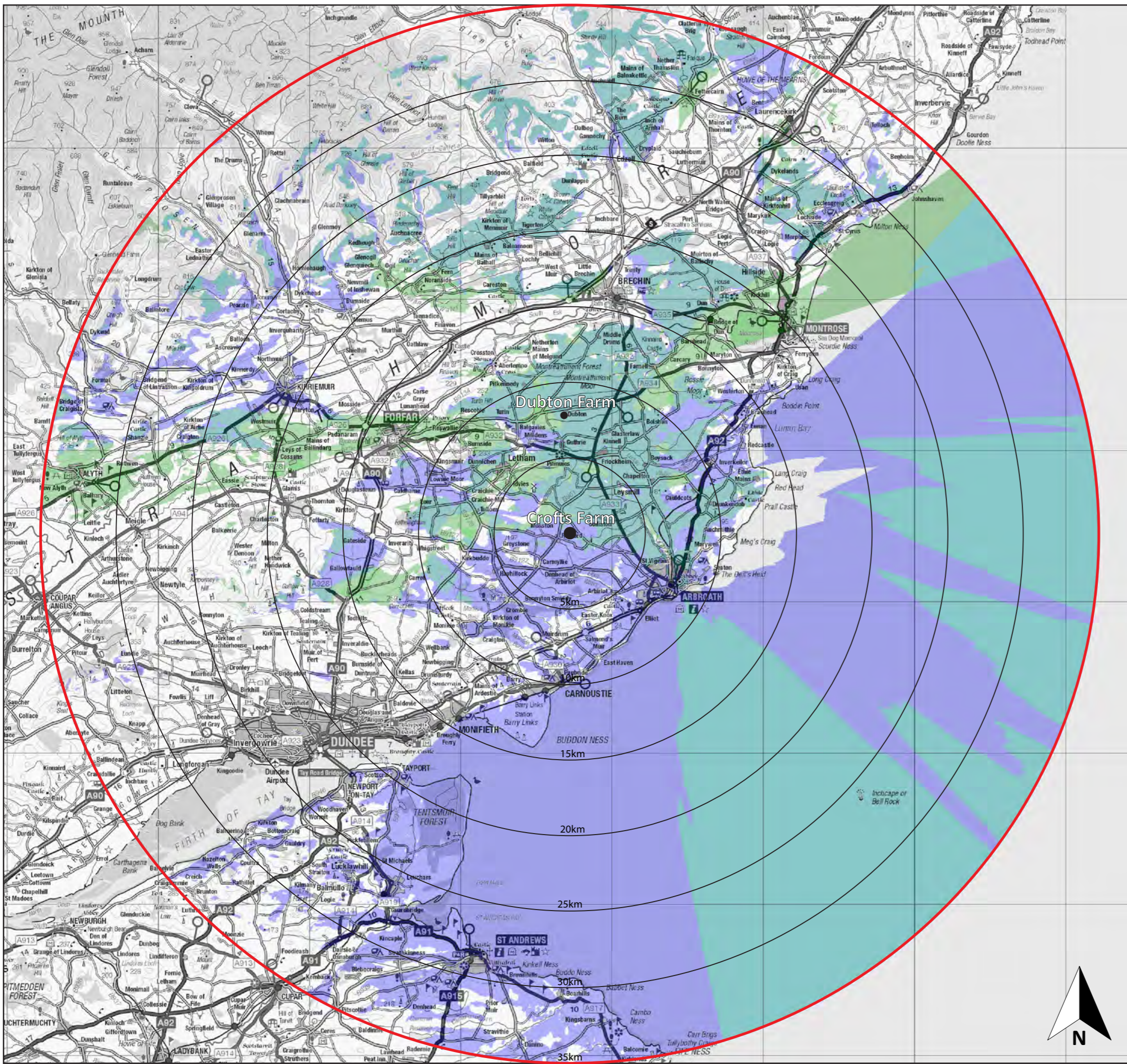
- Key:
- Proposed Turbines Location
 - Other Project Location
 - 5, 10, 15, 20, 25 & 30km Radii from Wind Turbines Centre
 - Landscape and Visual Study Area (35km)
-
- Crofts Farm Visible
 - Greenhillock Visible
 - Crofts Farm & Greenhillock Visible

Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Client: **Crofts Farm Renewables Ltd.**
 Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.11c**
 Version: **1.0**
 Author: **SS**
 Checked by: **RC**
 Approved By: **GM**
 Date: **10/01/2014**





Project Name: **Crofts Farm Wind Turbines**
 Document Title: **Cumulative ZTV to Tip Height for 35km Radii - Dubton Farm (Planning)**
 Scale: **1:250,000 @ A3**

- Key:
- Proposed Turbines Location
 - Other Project Location
 - 5, 10, 15, 20, 25 & 30km Radii from Wind Turbines Centre
 - Landscape and Visual Study Area (35km)

- Crofts Farm Visible
- Dubton Farm Visible
- Crofts Farm & Dubton Farm Visible

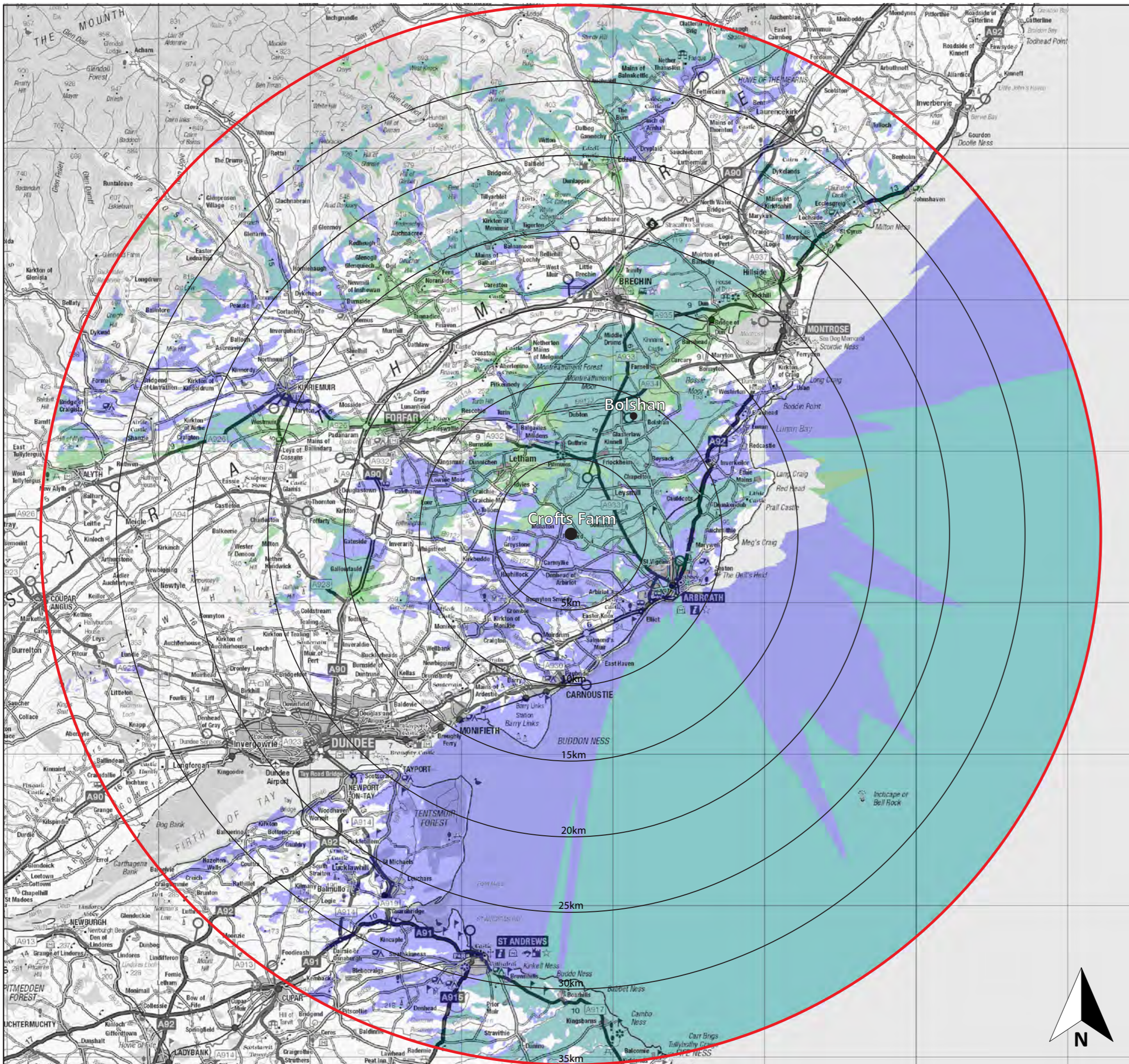
Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Client: **Crofts Farm Renewables Ltd.**
 Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.11d**
 Version: **1.0**
 Author: **SS**
 Checked by: **RC**
 Approved By: **GM**
 Date: **10/01/2014**

©Green Cat Renewables Ltd





Project Name: **Crofts Farm Wind Turbines**
 Document Title: **Cumulative ZTV to Tip Height for 35km Radii - Bolshan (Planning)**
 Scale: **1:250,000 @ A3**

- Key:
- Proposed Turbines Location
 - Other Project Location
 - 5, 10, 15, 20, 25 & 30km Radii from Wind Turbines Centre
 - Landscape and Visual Study Area (35km)

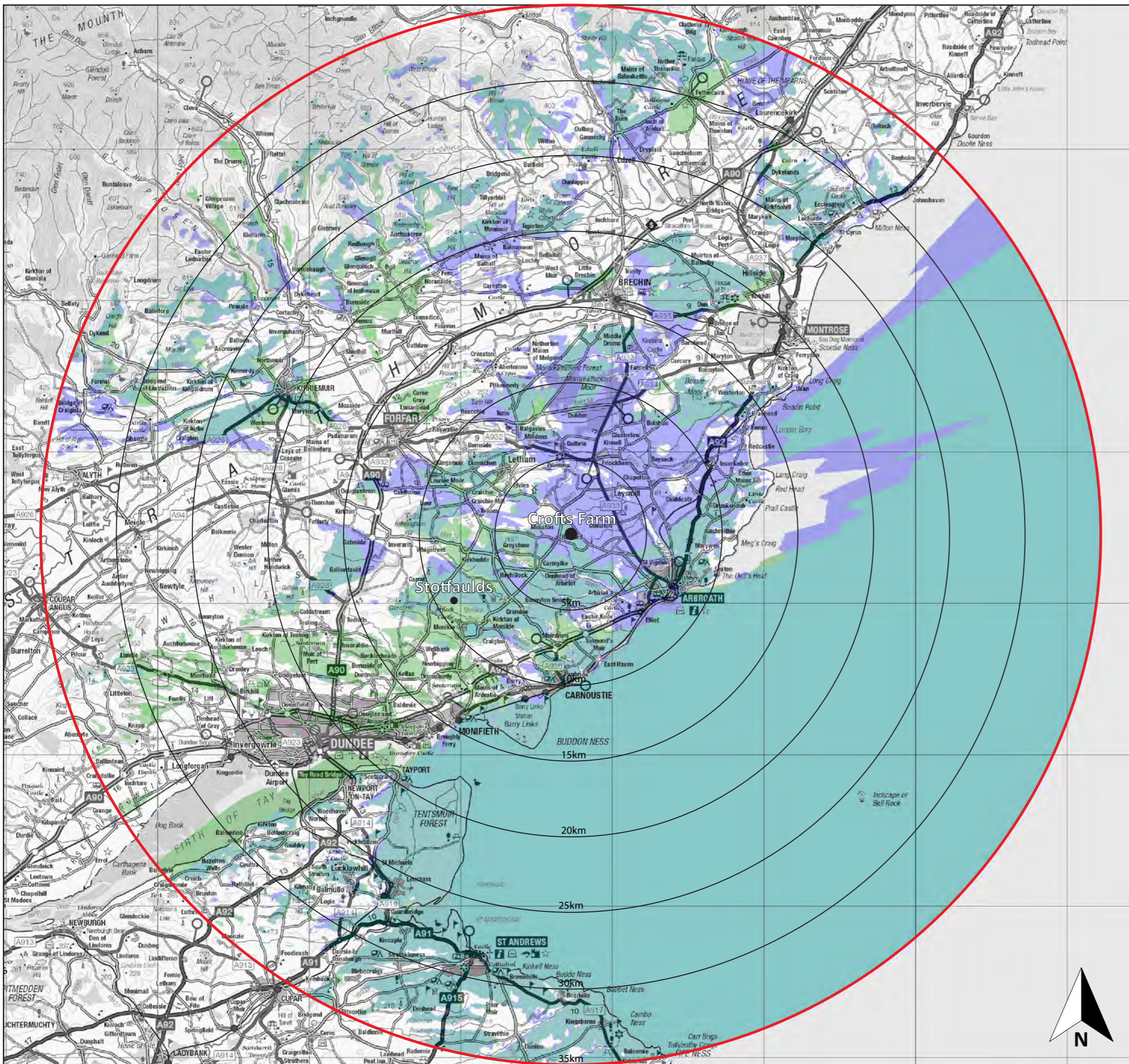
- Crofts Farm Visible
- Bolshan Visible
- Crofts Farm & Bolshan Visible

Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Client: **Crofts Farm Renewables Ltd.**
 Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.11e**
 Version: **1.0**
 Author: **SS**
 Checked by: **RC**
 Approved By: **GM**
 Date: **10/01/2014**





Project Name: **Crofts Farm Wind Turbines**
 Document Title: **Cumulative ZTV to Tip Height for 35km Radii - Stotfaulds (Planning)**
 Scale: **1:250,000 @ A3**

- Key:
- Proposed Turbines Location
 - Other Project Location
 - 5, 10, 15, 20, 25 & 30km Radii from Wind Turbines Centre
 - Landscape and Visual Study Area (35km)

- Crofts Farm Visible
- Stotfaulds Visible
- Crofts Farm & Stotfaulds Visible

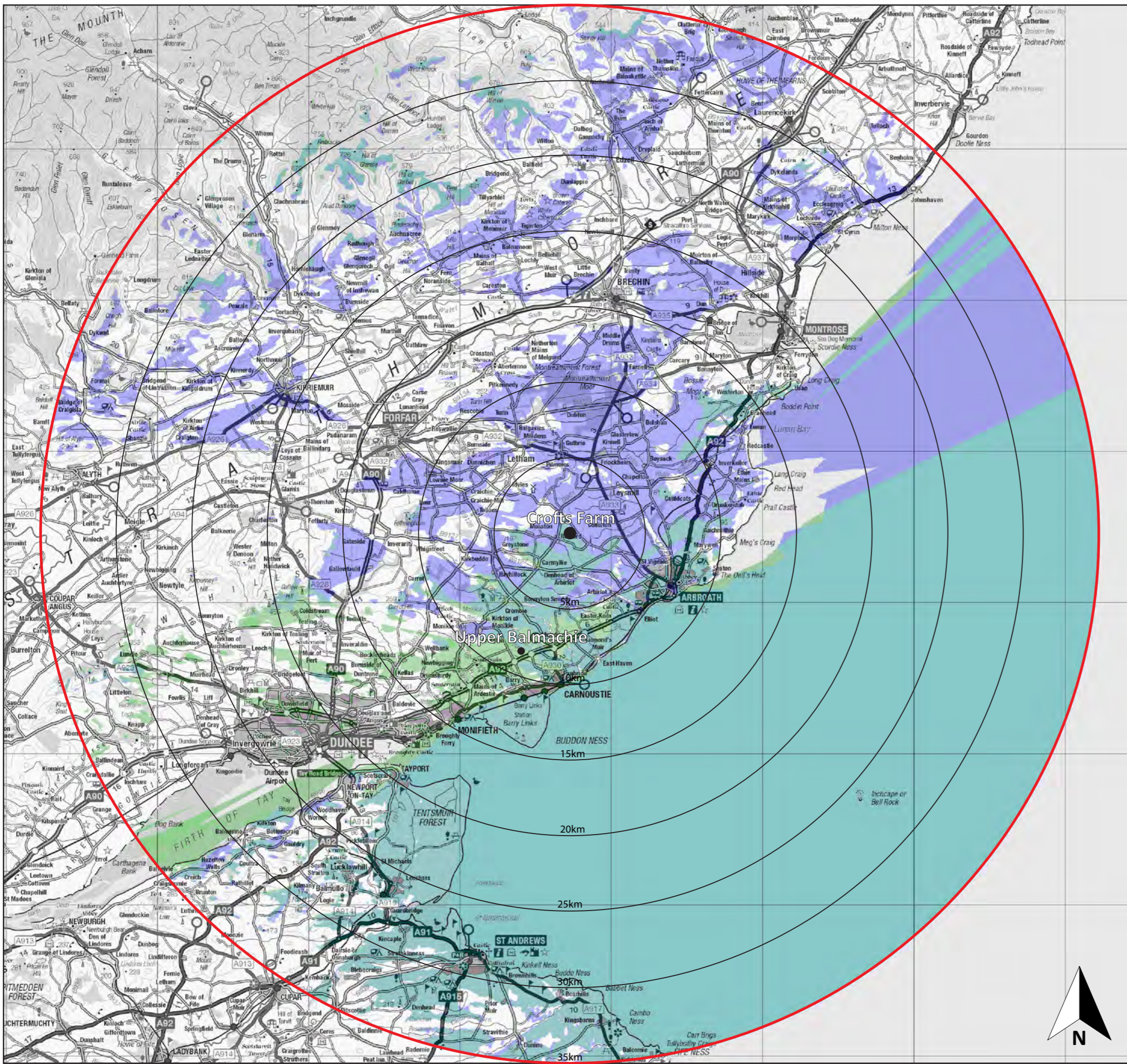
Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Client: **Crofts Farm Renewables Ltd.**
 Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.11f**
 Version: **1.0**
 Author: **SS**
 Checked by: **RC**
 Approved By: **GM**
 Date: **10/01/2014**

©Green Cat Renewables Ltd





Project Name: **Crofts Farm Wind Turbines**
 Document Title: **Cumulative ZTV to Tip Height for 35km Radii - Upper Balmachie (Planning)**
 Scale: **1:250,000 @ A3**

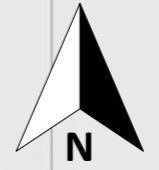
- Key:
- Proposed Turbines Location
 - Other Project Location
 - 5, 10, 15, 20, 25 & 30km Radii from Wind Turbines Centre
 - Landscape and Visual Study Area (35km)

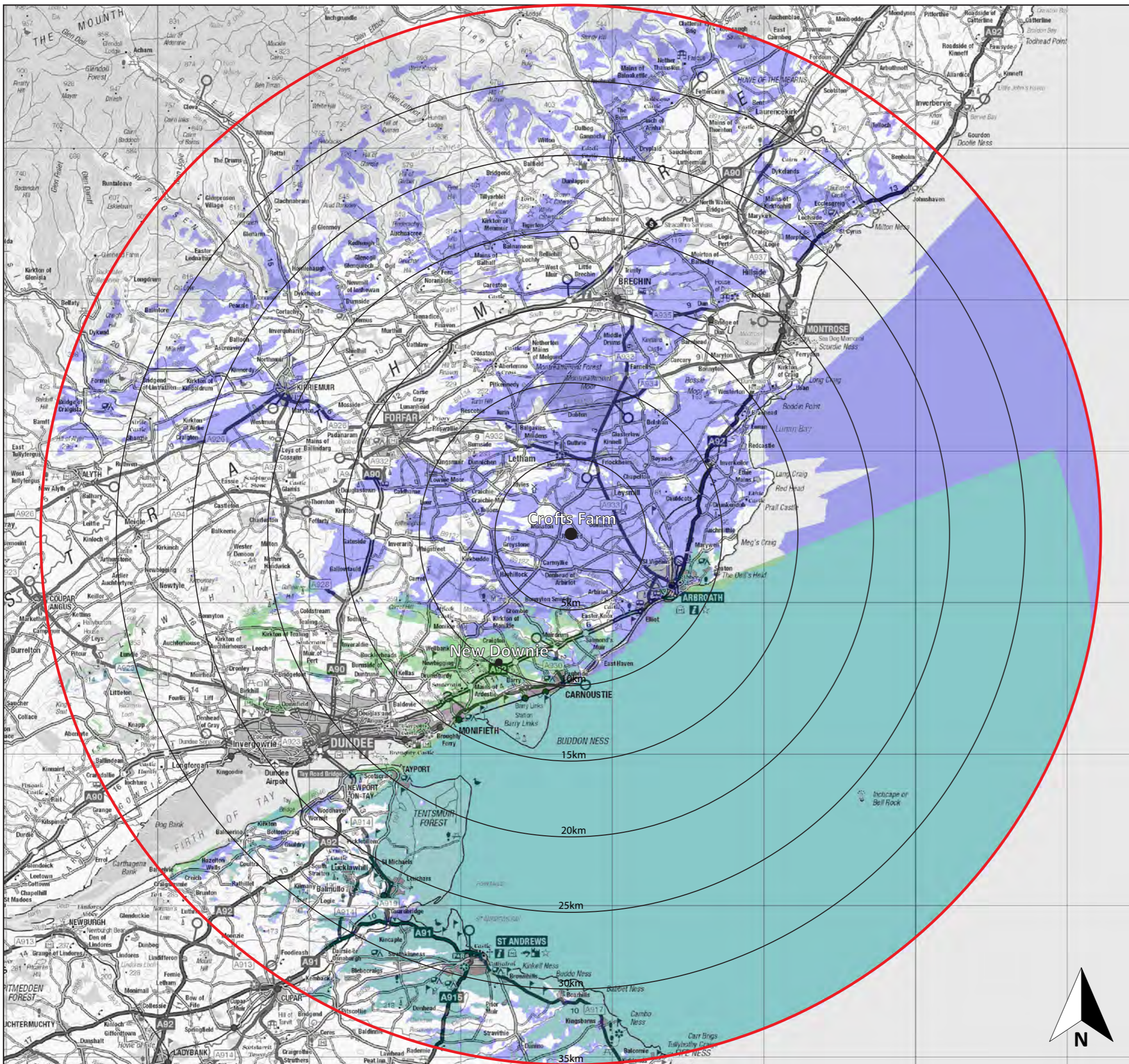
- Crofts Farm Visible
- Upper Balmachie Visible
- Crofts Farm & Upper Balmachie Visible

Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Client: **Crofts Farm Renewables Ltd.**
 Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.11g**
 Version: **1.0**
 Author: **SS**
 Checked by: **RC**
 Approved By: **GM**
 Date: **10/01/2014**





Project Name: **Crofts Farm Wind Turbines**
 Document Title: **Cumulative ZTV to Tip Height for 35km Radii - New Downie (Planning)**
 Scale: **1:250,000 @ A3**

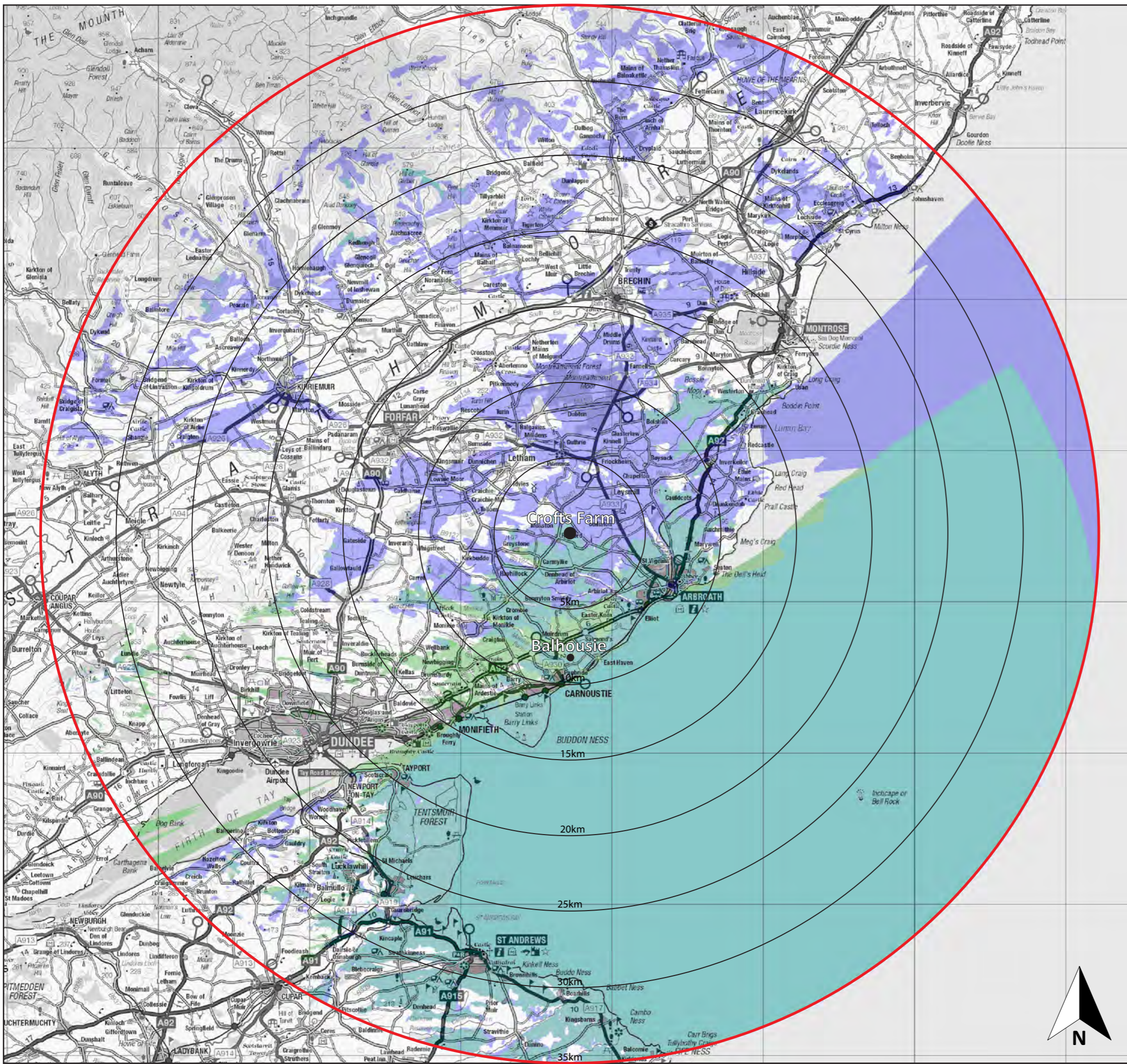
- Key:
- Proposed Turbines Location
 - Other Project Location
 - 5, 10, 15, 20, 25 & 30km Radii from Wind Turbines Centre
 - Landscape and Visual Study Area (35km)
 - Crofts Farm Visible
 - New Downie Visible
 - Crofts Farm & New Downie Visible

Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Client: **Crofts Farm Renewables Ltd.**
 Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.11h**
 Version: **1.0**
 Author: **SS**
 Checked by: **RC**
 Approved By: **GM**
 Date: **10/01/2014**





Project Name: **Crofts Farm Wind Turbines**
 Document Title: **Cumulative ZTV to Tip Height for 35km Radii - Balhousie (Planning)**
 Scale: **1:250,000 @ A3**

- Key:
- Proposed Turbines Location
 - Other Project Location
 - 5, 10, 15, 20, 25 & 30km Radii from Wind Turbines Centre
 - Landscape and Visual Study Area (35km)

- Crofts Farm Visible
- Balhousie Visible
- Crofts Farm & Balhousie Visible

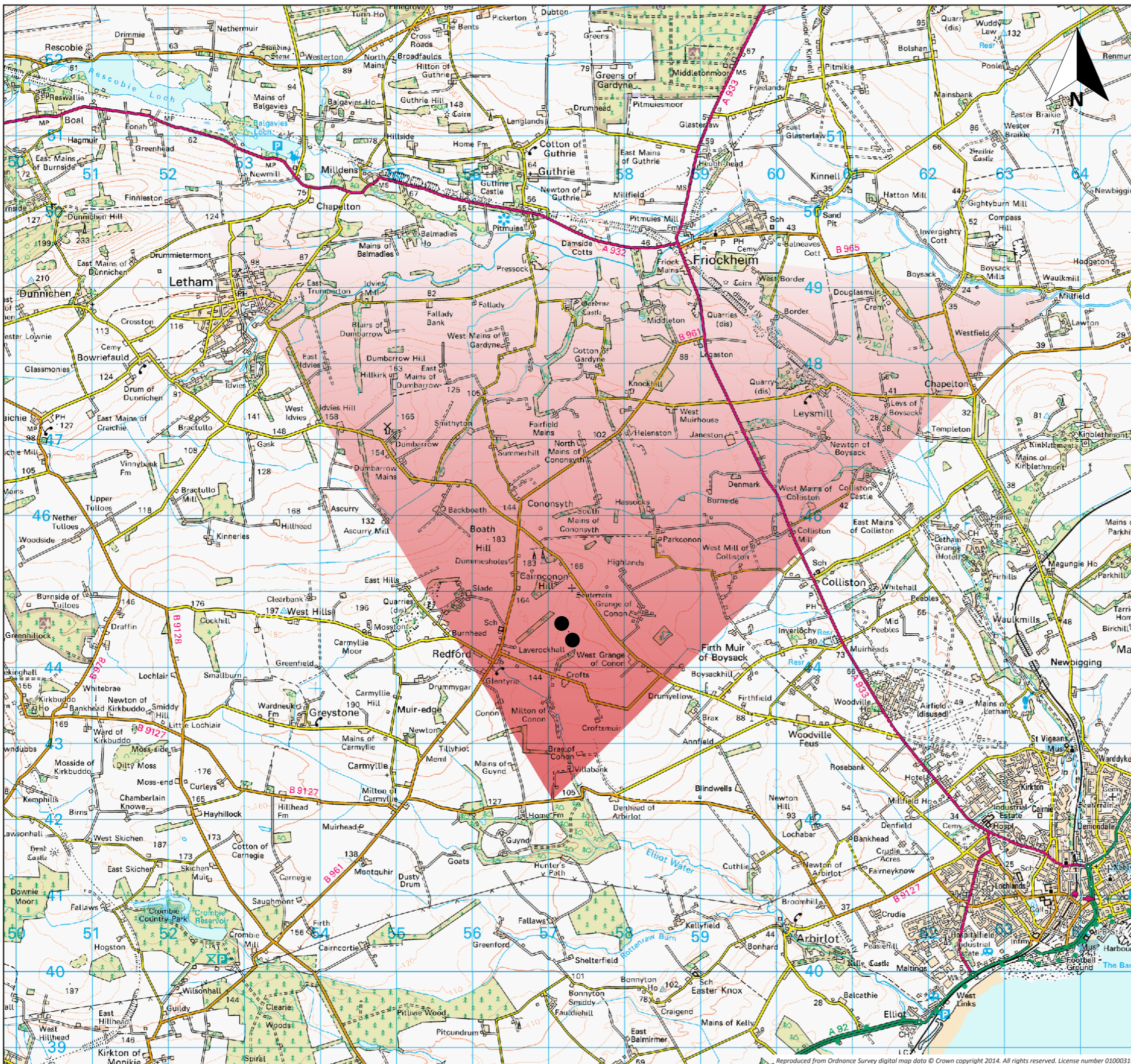
Reproduced from Ordnance Survey digital map data © Crown copyright 2014. All rights reserved. License number 010003167

Client: **Crofts Farm Renewables Ltd.**
 Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.11i**
 Version: **1.0**
 Author: **SS**
 Checked by: **RC**
 Approved By: **GM**
 Date: **10/01/2014**

©Green Cat Renewables Ltd






Project Name: **Crofts Farm Wind Turbines**

Document Title: **VP01 - The Guynd**

Scale: **1:50,000 @ A3**

Key:
 Proposed Turbine Locations

 76° Field of View

Viewpoint Information

Viewpoint Location: **E356680 N742221**

Viewpoint Elevation: **119m (A.O.D)**

View Direction: **24°**

Distance to Turbine: **2.3km**

Visibility: **2 Hubs**

Camera Type: **Nikon D3100**

Focal Length: **35mm**

Effective Focal Length: **54.6mm**

Date Taken: **30/01/2013**

Time Taken: **15:48**

Height above elevation: **1.5m**

Visual Impact

Sensitivity: **High**

Magnitude: **Low**

Overall: **Moderate**

Please note for a 76° field of view, a viewing distance of 300mm is recommended.

Client: **Crofts Farm Renewables Ltd.**

Drawing by: **Green Cat Renewables Ltd**

Document Number: **CO118-183/Fig 7.12**

Version: **1.0**

Author: **SS**

Checked by: **RC**

Approved By: **GM**

Date: **10/01/2014**



VP01 THE GUYND - PHOTOGRAPH OF EXISTING VIEW



VP01 THE GUYND - WIRELINE DRAWING





VP01 THE GUYND – 70MM PHOTOMONTAGE OF PROPOSAL



26° VIEWING ANGLE 500MM VIEWING DISTANCE