

PREFACE

This Environmental Statement (ES) has been prepared in support of a planning application for a proposed wind farm and Energy Storage Facility at Upper Ogmore, between Blaengwynfi, Nantymoel and Blaengarw in Bridgend.

The ES is contained within four separate volumes:

Volume 1	Non Technical Summary
Volume 2	Main Report
Volume 3	Figures
Volume 4	Appendices

A separate Planning Statement has been prepared to accompany the planning application.

A separate Design and Access Statement has been prepared to accompany the planning application.

The ES has been prepared by RES Ltd (RES) in consultation with the Planning Inspectorate Wales, Bridgend County Borough Council, Neath Port Talbot County Borough Council, various statutory consultees and in collaboration with the following specialist consultants:

Cultural Heritage	Ecology and Biodiversity
Archaeology Collective The Office Leeds 1 Aire Street Leeds LS1 4PR	BSG Ecology Merlin House 1 Langstone Business Park Langstone Newport NP18 2HJ
Noise assessment	Public Access, Land Use and Socioeconomics
RES Ltd Beaufort Court Egg Farm lane Kings Langley, WD4 8LR	Oxford Economics Lagan House Sackville Street Lisburn BT27 4AB
	Archaeology Collective The Office Leeds 1 Aire Street Leeds LS1 4PR Noise assessment RES Ltd Beaufort Court Egg Farm lane Kings Langley,

The full ES may be viewed on the Project Website <u>www.upperogmore-windfarm.co.uk</u>

Hard copies of the full ES are available to purchase from RES at a cost of £200. Copies of the full ES are available on CD-ROM free of charge. Hard copies of the non-technical summary are available free of charge. Requests for documents should be made in writing, including payment if purchase of the full ES is required, to RES Ltd, Cedar House, Greenwood Close, Cardiff Gate Business Park, Cardiff, CF23 8RD or to <u>chris.jackson@res-group.com</u>.



TABLE OF CONTENTS

Paragraph No.	Section	Page No.
	PREFACE	i
	TABLE OF CONTENTS	ii
1	Introduction	
1.1	Background	1-1
1.4	The Applicant	1-1
1.7	Environmental Impact Assessment Process	1-2
1.17	Structure of the Environmental Statement	1-4
1.25	Planning Application	1-6
1.27	Commenting on the ES	1-7
	References	1-8
2	Design Evolution and Alternatives	
2.1	Introduction	2-1
2.3	Current Land Use and Site Context	2-1
2.8	Key Issues and Constraints	2-2
2.14	Consultation	2-3
2.18	Alternatives	2-3
2.27	Design Evolution	2-4
2.66	Infrastructure Design Evolution	2-12
2.77	Summary	2-14
3	Proposed Development	
3.1	Introduction	3-1
3.9	Site Layout and Flexibility	3-2
3.10	Project Description	3-3
3.42	Typical Construction Activities	3-8
3.79	Operation and Management	3-16
3.86	Decommissioning	3-17
3.89	Construction and Decommissioning Management	3-17
3.107	Carbon Balance Assessment	3-22
4	Planning Policy Context	
4.1	Introduction	4-1
4.3	Energy Policy at the UK Level	4-1
4.11	Energy Policy in Wales	4-4
4.15	UK Planning Policy Statements	4-5
4.19	Welsh Planning Policy	4-6
4.29	Bridgend CBC Local Development Plan	4-10
	References	4-11
5	Landscape and Visual Impact Assessment	
5.1	Executive Summary	5-1
5.11	Introduction	5-2
5.16	Legislation & Planning Policy	5-3
5.27	Scope of Assessment	5-5
5.38	Assessment Methodology	5-9
5.42	Baseline Conditions	5-10
5.94	Likely Significant Effects	5-26
5.107	Mitigation	5-28
5.110	Assessment of Landscape Effects	5-29



5.132	Assessment of Visual Effects	5-33
5.163	Summary	5-38
6	Ecology	
6.1	Introduction	6-1
6.5	Legislation and Planning Policy	6-1
6.7	Site Description	6-2
6.14	Scope of Assessment	6-3
6.18	Assessment Methodology	6-4
6.63	Baseline Conditions and Evaluation	6-14
6.262	Likely Significance Effects	6-47
6.365	Mitigation	6-65
6.380	Cumulative Effects	6-68
6.404	Residual Effects	6-73
	References	6-78
7	Cultural Heritage	
7.1	Introduction	7-1
7.4	Legislation and Planning	7-4
7.17	Scope of Assessment	7-3
7.19	Assessment Methodology	7-3
7.37	Baseline Conditions	7-8
7.51	Likely Significant Effects	7-10
7.90	Mitigation	7-19
7.93	Residual Effects	7-19
7.94	Cumulative Effects	7-20
	Summary	7-20
8	Hydrology and Hydrogeology	
8.1	Introduction and Scope	8-1
8.9	Legislation and Policy	8-2
8.16	Consultation	8-3
8.18	Assessment Methodology	8-4
8.27	Baseline Conditions	8-7
8.58	Mitigation and Management	8-13
8.89	Cumulative Effects	8-20
8.92	Conclusions and Residual Effects	8-20
9	Traffic, Transportation and Access	
9.1	Introduction	9-1
9.8	Scope of Assessment	9-1
9.11	Policy Context and Guidance	9-2
9.15	Assessment Methodology	9-3
9.19	Data Sources	9-4
9.20	Abnormal Load Delivery Route	9-4
9.25	Consultation	9-5
9.26	Baseline Conditions	9-7
9.27	Access for General Construction Traffic	9-7
9.31	Site Entrance	9-8
9.33	Predicted Effects	9-8
0.47	Physical Effect	9-13
9.47		
9.47	Operational Effects	9-13



9.54	Cumulative Effects	9-14
9.56	Mitigation and Enhancement	9-14
9.63	Residual Effects	9-15
9.67	Conclusion	9-16
10	Acoustic Assessment	
10.1	Introduction	10-1
10.9	Scope of Assessment	10-3
10.15	Legislative Framework & Guidance	10-4
10.33	Consultation	10-6
10.34	Methodology	10-8
10.57	Baseline Conditions	10-14
10.75	Potential Impacts	10-17
10.109	Mitigation	10-34
10.121	Residual Effects	10-35
10.123	Cumulative Effects	10-36
10.169	Summary	10-54
10.11	References	
11	Shadow Flicker & Reflected Light	
11.1	Shadow Flicker Assessment - Background Information	11-1
11.4	Reflected Light	11-1
11.9	Policy and Guidance	11-2
11.10	Methodology	11-2
11.14	Results	11-2
11.16	Mitigation	11-2
	References	11-2
12	Socio-economics, Land Use and Public Acces	
12.1	Introduction	12-1
12.6	Socioeconomics	12-2
12.3	Quantifiable benefits: background and assumptions	12-3
12.50	Economic impact of the operational phase	12-11
12.56	Impact on tax revenue and benefit savings	12-13
12.61	Other quantifiable benefits of the Proposed Development	12-14
12.66	Socioeconomic backdrop	12-16
12.89	Conclusions	12-21
12.96	Public access & land use	12-22
13	Schedule of Mitigation	
	Introduction	13-1
	Table 13.1: Schedule of Mitigation	13-1

All figures are listed in Volume 3 of this ES

All appendices are listed in Volume 4 of this ES

The second secon