

## VOLUME 2 – LIST OF FIGURES

### CONTENTS

#### CHAPTER 1: INTRODUCTION

FIGURE 1-1 SITE LOCATION

#### CHAPTER 4: SITE SELECTION AND PROJECT EVOLUTION

FIGURE 4-1 LLAITHDU WIND FARM LAYOUT

FIGURE 4-2 ONSITE CONSTRAINTS

FIGURE 4-3 SCOPING LAYOUT

FIGURE 4-4 OCTOBER 2020 CONSULTATION LAYOUT

FIGURE 4-5 PAC LAYOUT

#### CHAPTER 5: PROJECT DESCRIPTION

FIGURE 5-1 SITE LAYOUT

FIGURE 5-2 SITE TRACK – TYPICAL

FIGURE 5-3 SITE TRACK – TYPICAL FLOATING

FIGURE 5-4A INDICATIVE CLOSED PIPE DITCH CROSSING

FIGURE 5-4B INDICATIVE BOTTOMLESS ARCH CROSSING

FIGURE 5-5 TYPICAL TURBINE ELEVATION

FIGURE 5-6 TYPICAL TURBINE FOUNDATION

FIGURE 5-7 TYPICAL CRANE HARDSTANDING AND BLADE LAYDOWN AREA

FIGURE 5-8 INDICATIVE TEMPORARY CONSTRUCTION COMPOUND

FIGURE 5-9 INDICATIVE SUBSTATION AND CONTROL BUILDINGS (PLAN AND ELEVATION)

FIGURE 5-10: INDICATIVE ENERGY STORAGE FACILITY

FIGURE 5-11 TYPICAL CABLE TRENCH DETAIL

FIGURE 5-12 INDICATIVE GRID CONNECTION CORRIDOR

FIGURE 5-13 ACCESS STRATEGY

#### CHAPTER 6: LVIA

FIGURE 6-1 LANDSCAPE AND VISUAL IMPACT ASSESSMENT STUDY AREA

FIGURE 6-2A HUB HEIGHT ZTV (40KM)

FIGURE 6-2B HUB HEIGHT ZTV (10KM)

FIGURE 6-3A TIP HEIGHT ZTV (40KM)

FIGURE 6-3B TIP HEIGHT ZTV (10KM)

FIGURE 6-4 PROPOSED GARN FACH WIND FARM SCHEME

FIGURE 6-5 PROPOSED GARN FACH WIND FARM SCHEME ON AERIAL BASE

FIGURE 6-6 OPERATIONAL SCHEMES – CUMULATIVE BLADE TIP HEIGHT ZTV

FIGURE 6-7 SITE TOPOGRAPHY

FIGURE 6-8 NATIONAL LANDSCAPE CHARACTER AREAS

FIGURE 6-9 DESIGNATED LANDSCAPES WITH BLADE TIP HEIGHT ZTV

FIGURE 6-10 SHROPSHIRE LANDSCAPE CHARACTER TYPES

FIGURE 6-11A LANDMAP ASPECT AREAS – VISUAL AND SENSORY

FIGURE 6-11B LANDMAP ASPECT AREAS – GEOLOGICAL LANDSCAPE

FIGURE 6-11C LANDMAP ASPECT AREAS –LANDSCAPE HABITAT

FIGURE 6-11D LANDMAP ASPECT AREAS – HISTORIC LANDSCAPE

FIGURE 6-11E LANDMAP ASPECT AREAS – CULTURAL LANDSCAPE

FIGURE 6-12A LANDSCAPE UNITS WITH BLADE TIP HEIGHT ZTV (20KM)

FIGURE 6-12B LANDSCAPE UNITS WITH BLADE TIP HEIGHT ZTV (5KM)

FIGURE 6-12C LANDSCAPE UNITS SCOPED IN

FIGURE 6-13A VISUAL RECEPTORS – LOCAL COMMUNITIES

FIGURE 6-13B VISUAL RECEPTORS – ROUTES, SUMMITS AND OTHER ATTRACTIONS

FIGURE 6-14A VISUAL RECEPTORS – LOCAL COMMUNITIES (WITH BLADE TIP HEIGHT ZTV AND VIEWPOINTS)

FIGURE 6-14B VISUAL RECEPTORS – ROUTES, SUMMITS AND OTHER ATTRACTIONS (WITH BLADE TIP HEIGHT ZTV AND VIEWPOINTS)

FIGURE 6-15 WIND ENERGY DEVELOPMENTS WITHIN 40KM AND INCLUDED IN THE CUMULATIVE ASSESSMENT

FIGURE 6-16 CUMULATIVE BLADE TIP HEIGHT ZTV OF GARN FACH WIND FARM AND WIND FARM GROUP WITHIN 5KM (SCENARIO A)

FIGURE 6-17A CUMULATIVE BLADE TIP HEIGHT ZTV OF GARN FACH WIND FARM AND EASTERN WIND FARM GROUP BEYOND 5KM (SCENARIO A)

FIGURE 6-17B CUMULATIVE BLADE TIP HEIGHT ZTV OF GARN FACH WIND FARM AND EASTERN WIND FARM GROUP BEYOND 5KM (SCENARIO B)

FIGURE 6-18 CUMULATIVE BLADE TIP HEIGHT ZTV OF GARN FACH WIND FARM AND WESTERN WIND FARM GROUP BEYOND 5KM (SCENARIO A)

FIGURE 6-19A CUMULATIVE BLADE TIP HEIGHT ZTV OF GARN FACH WIND FARM AND NORTHERN WIND FARM GROUP BEYOND 5KM (SCENARIO A)

FIGURE 6-19B CUMULATIVE BLADE TIP HEIGHT ZTV OF GARN FACH WIND FARM AND NORTHERN WIND FARM GROUP BEYOND 5KM (SCENARIO B)

FIGURE 6-20 CUMULATIVE BLADE TIP HEIGHT ZTV OF GARN FACH WIND FARM AND SOUTHERN WIND FARM GROUP BEYOND 5KM (SCENARIO A)

FIGURE 6-21A – PHOTOMONTAGES

FIGURE 6-47B

FIGURE 6-48 PROPERTY LOCATIONS

FIGURE 6-49 PROPERTY LOCATIONS WITH ZTV TO HUB

FIGURE 6-50 PROPERTY LOCATIONS WITH ZTV TO TIP

Figure 6-51A – WIRELINES

FIGURE 6-70B

#### CHAPTER 7: NOISE

FIGURE 7-1 NOISE MONITORING LOCATIONS

FIGURE 7-2 NOISE CONTOUR PLOT GARN FACH

FIGURE 7-3 NOISE CONTOUR PLOT GARN FACH AND P&L

FIGURE 7-4 NOISE CONTOUR PLOT GARN FACH AND LLANDINAM

#### CHAPTER 8 : ECOLOGY

FIGURE 8-1 SITE DESIGNATIONS

FIGURE 8-2 PHASE 1 HABITAT MAP

FIGURE 8-3 NATIONAL VEGETATION CLASSIFICATION HABITAT MAP

FIGURE 8-4 GROUND WATER DEPENDENT TERRESTRIAL ECOSYSTEMS

FIGURE 8-5 PRELIMINARY BAT ROOST ASSESSMENT OF FEATURES WITHIN 200M OF SITE

FIGURE 8-6 BAT TRANSECT ROUTES AND LISTENING POINTS

FIGURE 8-7 BAT ACTIVITY HOTSPOTS FOR PIPISTRELLUS AND NYCTALUS

FIGURE 8-8 AUTOMATED DETECTOR (TEMPORAL) SURVEY AND PROPOSED TURBINE LAYOUT

FIGURE 8-9 POND LOCATIONS

FIGURE 8-10A LOCATION OF PROPOSED GREAT CRESTED NEWT BARRIER (NON LICENSED)

FIGURE 8-10A LOCATION OF PROPOSED GREAT CRESTED NEWT BARRIER (LICENSED)

FIGURE 8-11 PROPOSED GREAT CRESTED NEWT HIBERNACULA LOCATIONS

FIGURE 8-13 LOCATION OF RECORDED OTTER ACTIVITY ON SITE

FIGURE 8-14 CONFIDENTIAL

FIGURE 8-15 PHASE 1 HABITAT MAP WITH INFRASTRUCTURE LAYOUT

FIGURE 8-16 NVC HABITAT MAP WITH INFRASTRUCTURE LAYOUT

#### CHAPTER 9: ORNITHOLOGY

FIGURE 9-1 VIEWSHEDS OF VANTAGE POINTS ON SITE

FIGURE 9-2 FEATURES SEARCHED FOR POTENTIAL USE BY BARN OWL

FIGURE 9-3 FEATURES SEARCHED FOR POTENTIAL USE BY PEREGRINE

FIGURE 9-4 NIGHTJAR SURVEY TRANSECT ROUTE

FIGURE 9-5 CURLEW SURVEY TRANSECT ROUTE

FIGURE 9-6 SUSPECTED BREEDING TERRITORIES OF RED AND AMBER LISTED BIRDS

FIGURE 9-7 GOLDEN PLOVER FLIGHTS

FIGURE 9-8 GOSHAWK FLIGHTS

FIGURE 9-9 GREAT BLACK-BACKED GULL FLIGHTS

FIGURE 9-10 HEN HARRIER FLIGHTS

FIGURE 9-11 HERRING GULL FLIGHTS

FIGURE 9-12 KESTREL FLIGHTS

FIGURE 9-13 LESSER BLACK-BACKED GULL FLIGHTS

FIGURE 9-14 PEREGRINE FLIGHTS

FIGURE 9-15 RED KITE FLIGHTS

FIGURE 9-16 CURLEW FLIGHTS

FIGURE 9-17 MERLIN FLIGHTS

FIGURE 9-18 SNIPE FLIGHTS

FIGURE 9-19 LOCATION OF PREVIOUSLY USED RED KITE NESTS

FIGURE 9-20 TURBINES OF POTENTIAL ORNITHOLOGICAL CONCERN

FIGURE 9-21 GOSHAWK HABITAT SUITABILITY ASSESSMENT SURVEY AREA

**CHAPTER 10: HYDROLOGY AND GEOLOGY**

- FIGURE 10-1 DRAINING CATCHMENTS
- FIGURE 10-2 SITE TOPOGRAPHY
- FIGURE 10-3 BEDROCK AND SUPERFICIAL GEOLOGY
- FIGURE 10-4 SOILS
- FIGURE 10-5 NRW FLOOD MAPS
- FIGURE 10-6 HYDROLOGICAL CONSTRAINTS

**CHAPTER 11: ARCHAEOLOGY AND CULTURAL HERITAGE**

- FIGURE 11-1 DESIGNATED AND HERITAGE ASSETS WITHIN 10KM OF SITE BOUNDARY
- FIGURE 11-2 UNDESIGNATED HERITAGE ASSETS WITHIN THE SITE BOUNDARY
- FIGURE 11-3 POTENTIAL INDIRECT VISUAL IMPACTS ON HERITAGE ASSETS FUNERARY AND RITUAL
- FIGURE 11-4 POTENTIAL INDIRECT VISUAL IMPACTS ON DESIGN AND REGISTERED HERITAGE ASSETS IN 10KM OF TURBINE HUBS
- FIGURE 11-5 POTENTIAL INDIRECT VISUAL IMPACTS ON DESIGN AND REGISTERED HERITAGE ASSETS IN 10KM OF TIP HEIGHT
- FIGURE 11-6 CHVP1: PRINCIPAL VIEW OF FOWLERS ARM CHAIR RD039
- FIGURE 11-7 CHVP2: VIEW SOUTH ACROSS FOWLERS ARM CHAIR RD039
- FIGURE 11-8 CHVP3: VIEW TO RD039
- FIGURE 11-9 CHVP4: VIEW TO MG125 FROM MG086
- FIGURE 11-10 CHVP5: VIEW TO RD039 FROM MG125
- FIGURE 11-11 CHVP6: VIEW EAST FROM MG126
- FIGURE 11-12 CHVP7: VIEW TO MG086 FROM RD193
- FIGURE 11-13 CHVP8: VIEW TO RD039 FROM RD193
- FIGURE 11-14 CHVP9: VIEW TO RD039 FROM RD148
- FIGURE 11-15 CHVP10: VIEW EAST FROM RD039
- FIGURE 11-16 CHVP11: VIEW NORTH FROM RD039
- FIGURE 11-17 CHVP12: VIEW TO MG125 FROM RD039
- FIGURE 11-18 CHVP13: VIEW FROM MG016 TO GARN FACH

- FIGURE 11-19 CHVP14: VIEW FROM RD011 TO GARN FACH
- FIGURE 11-20 CHVP15: VIEW FROM MG121 TO GARN FACH
- FIGURE 11-21 CHVP16: VIEW FROM RD102 TO GARN FACH
- FIGURE 11-22 CHVP17: VIEW FROM RD038 TO GARN FACH
- FIGURE 11-23 CHVP18: VIEW FROM MG082 TO GARN FACH
- FIGURE 11-24 CHVP19: VIEW FROM RD084 TO GARN FACH
- FIGURE 11-25 CHVP20: VIEW FROM RD106 TO GARN FACH
- FIGURE 11-26 CHVP21: VIEW FROM RD129 TO GARN FACH
- FIGURE 11-27 CHVP22: VIEW FROM RD161 TO GARN FACH
- FIGURE 11-28 CHVP23: VIEW FROM RD263 TO GARN FACH
- FIGURE 11-29 CHVP24: VIEW FROM PEN ITHON HALL TO GARN FACH
- FIGURE 11-30 CHVP25: VIEW TO SITE FROM CWMDERW
- FIGURE 11-31 CHVP26: LB17326 THE ROCK
- FIGURE 11-32 CHVP28: LB7591 TALGARTH

**CHAPTER 12: TELECOMMUNICATIONS AND AIR SAFEGUARDING**

- FIGURE 12-1 VFR 250K CHART EXTRACT
- FIGURE 12-2 VFR 500K CHART EXTRACT

**CHAPTER 13: TRANSPORT AND ACCESS**

- FIGURE 13-1 TRANSPORT STUDY AREA

**CHAPTER 14: SOCIO-ECONOMICS**

- FIGURE 14-1 MAP OF STUDY AREA

**CHAPTER 15: SHADOW FLICKER**

- FIGURE 15-1 SHADOW FLICKER RECEPTORS