

Welsh Government

National Development Framework for Wales

Draft for Consultation

Introduction

- 1) These representations are made on behalf of Bute Energy Ltd. Bute Energy holds substantial land interests in Wales (outside the nationally designated areas) that are considered suitable for the establishment of large-scale modern wind energy development. Bute Energy welcomes the emerging Spatial Strategy for renewable energy development.
- 2) Bute Energy acknowledges the tension which can exist between the provision of renewable energy generation stations, such as wind energy development, and the need for protection of the socio-economic and environmental assets of Wales. The principle of the traffic light approach which distinguishes geographical areas where: large scale renewable energy development is not appropriate (Red); the areas of Wales where such development carries a presumption in favour of development (Green), and the remaining areas of Wales where such development may be acceptable (Orange) is supported.
- 3) Bute Energy makes the following representations to support the provision of renewable energy development in the interests of Wales, through the encouragement of substantial investment by the private sector, while providing appropriate levels of protection for socio-economic and environmental interests.

Policy 10 Wind and Solar Energy in Priority Areas

- 4) The presumption in favour of wind and solar energy development and the acceptance of landscape change provided by Policy 10 is especially welcomed as a policy commitment supporting such development (unless the adverse impacts are, in a planning balance, unacceptable).

Acceptance of landscape change

- 5) The commitment of the Welsh Government to maximising the potential to generate renewable energy in Wales is welcomed (NDF page 36). TAN8, issued in 2005, envisaged that large scale wind

turbines might have a generating output of 2MW and a blade to tip height of 150m (Figure 1). Technology has substantially moved on since 2005. The maximising of renewable energy generation can now be achieved from turbines of 200m up to 250m (to tip height). The ARUP Study has undertaken a visual study for turbines up to 250m in height.

- 6) It is considered that in order to provide encouragement to the wind generating development industry, and clarity to communities, the NDF could approximately acknowledge the scale of modern wind turbines with the addition of the following words in the supporting text of the NDF under 'Renewable Energy':

'It is recognised that technological changes in the design of modern large-scale wind turbines enable maximum renewable generation to be achieved from wind turbines in the range 200-250m blade to tip height.'

- 7) The identification of the Priority Areas is derived from evidence based studies prepared for the Welsh Government by Ove Arup & Partners Ltd (ARUP). ARUP acknowledges (Stage 1 Development of Priority Areas for Wind and Solar Energy; and Stage 2 Assessment of On-shore Wind and Solar Energy Potential in Wales) that these studies (in bold text):

- i. ***'are a high-level desk-top review, mapping the location of grid infrastructure with respect to the areas of greatest potential'***

Response

Indeed, in view of the high-level considerations, the Studies do not provide a rational explanation as to the reason some 'areas of varying constraints' in the Stage 1 Study have not been carried forward into the Stage 2 Study for consideration within the refinement exercise.

This issue particularly relates to the Llangurig priority area and attached to these submissions is an analysis setting out these concerns (attached as **Annex 1**).

- ii. ***'have been carried out at a high-level, appropriate to 'national decision-making''***

- iii. **‘have, for the purpose of wind energy, considered visual study areas for wind turbines up to 150m (to tip height) and up to 250m (to tip height)’**

Response

While acknowledging that wind turbines up to 250m may present ‘a maximum height scenario in terms of turbine sizes to come forward in applications’, the ‘buffer’ defined from nationally designated landscapes within Wales (24km for 250m turbines) has been applied throughout and may have excluded from the Priority Areas the potential to accommodate large scale wind turbines at a lesser height e.g. 200m to tip.

- 8) Notwithstanding the strategic nature of the Studies, the Priority Areas as now identified within the NDF will be given weight as part of the statutory development plan and will form a distinctive geographical ‘boundary’ to the application of Policy 10 (within the Priority Areas) or Policy 11 (outside the Priority Areas).
- 9) The difficulty with the policy provision for the Priority Areas as presently proposed is illustrated by the fact that Bute Energy has an emerging wind energy development array that is partly within the identified Priority Area and partly beyond the Priority Area boundary. A single wind energy proposal – designed as an entity – would then face determination pursuant to two different policy approaches. (Policy 10 for that part of the proposal that lies within the identified Priority Area, and Policy 11 for that part outside the Priority Area.)
- 10) The principle of accepting a landscape change from wind energy development beyond the boundary of a defined area (which has been regarded as being suitable for most large scale wind energy development) has been long established with TAN 8. TAN 8 acknowledges that the boundaries of the Strategic Search Areas (SSAs) are at a ‘broad brush’ scale (TAN 8 2.4). ARUP similarly acknowledges the limitations of their 2019 Study which, albeit identifying Priority Areas of large geographical extent, remain at a ‘high level’ or ‘broad brush’.
- 11) When considering cumulative landscape and visual impact, TAN 8 (Annexe D 8.4) acknowledges the approach to be taken namely:

‘Within (and immediately adjacent) to the SSAs the implicit objective is to accept landscape change i.e. a significant change in landscape character from wind turbine development.’

- 12) In recognition of the limitations of the necessarily high-level desk-based assessments it is submitted that Policy 10 should appropriately be amended to read:

‘The Welsh Government supports large-scale onshore wind and solar energy developments within and immediately adjacent to the identified Priority Areas for Solar and Wind Energy.’

Policy 10 Wind and Solar Energy in Priority Areas

Policy 11 Wind and Solar Energy outside Priority Areas

Repowering and extensions to existing windfarms

- 13) Technology in wind energy developments has substantially evolved since the first commercial windfarms were commissioned during the 1990s. These older electricity generating stations will be nearing the end of their operational life and the temporary period typically provided by the grant of planning permission (25 years). Such windfarms will be part of the landscape and visual scene, with an effective grid connection. TAN 8 (2.14) states:

‘There will also be opportunities to repower and/or extend existing windfarms which may be located outside SSAs and these should be encouraged provided that the environmental and landscape impacts are acceptable.’

- 14) It is considered that the NDF should also provide particular policy support for the repowering and extension of existing windfarms within the spatial policy context provided by Policy 10 and Policy 11. These additional words reasonably could be provided to both policies.

‘Encouragement is to be given to proposals which repower and/or extend existing wind and solar energy development.’

Local benefits and local ownership

- 15) The need for renewable energy is fundamental to one of 7 well-being goals for Wales (Well-being of Future Generations (Wales) Act 2015). It is acknowledged that host communities may consider that they suffer adverse impacts at the benefit of the nation’s interest. Of course, local communities

will similarly experience the wider benefits in addressing the adverse consequences of climate change.

- 16) The expectation that 'for new renewable energy projects to have at least an element of local ownership by 2020' is supported in principle. Bute Energy considers that it would be helpful to the renewable energy development industry and the preparation of its investment plans if clarification is provided as to the policy objective, particularly with the ordinary understanding of the word 'ownership'.
- 17) It is submitted that local communities may indeed secure social and economic benefits linked to the power output from wind energy development. Income generated could then be deployed within the local communities to meet social, economic and environmental benefits.
- 18) Hitherto, such community benefit funds have been routinely provided but have not been considered to amount to a material planning consideration. In the context of both Policy 10 and Policy 11 requiring the demonstration of such benefits, the industry seeks clarification as to the weight which may be given to the generation of income from wind energy developments into the local host community.

Minimising harm - maximising benefits

- 19) Policy 10 and Policy 11 state:

*'Planning applications must demonstrate **how** local social, economic and environmental benefits have been **maximised** and the following adverse impacts have been **minimised**.'*

- 20) The concept of minimising adverse impacts is reasonably well understood within the development management system, and may be encapsulated as that:
 - i. harm would need to be minimised to the extent that it is outweighed by the benefits, and
 - ii. any measures to minimise harm, that could be achieved without diminishing the benefits of the proposal, should be adopted.

21) The concept of maximising 'local social, economic and environmental benefits' is a more difficult concept to address by an applicant. A line of opposition to the grant of a wind energy development application potentially could be that, while it may be accepted that the adverse impacts have been minimised, the provision for 'local social, economic and environmental benefits' has not been 'maximised'. In short, more should be extracted from the development for the local interest. This situation creates uncertainty for investment and considerable difficulty for decision-taking, as the basis of a planning balance seeking the maximising of local benefits is an unclear concept for an applicant in the preparation of individual development proposals.

22) It is submitted that Policy 10 and Policy 11 should be reworded as follows:

'Planning applications must demonstrate how local social, economic and environmental benefits have been provided for.'

23) Such benefits can then be weighed within the planning balance provided by the policy context of Policy 10 or Policy 11.

Recommendations

Recommendations for rewording of Policy 10 and Policy 11

24) Bute Energy recommend that Policy 10 and Policy 11 should be amended to read as follows:

Policy 10 – Wind and Solar Energy in Priority Areas

The Welsh Government supports large scale on-shore wind and solar energy development **within and immediately adjacent to the identified Priority Areas for Solar and Wind Energy**. There is a presumption in favour of development for these schemes and an associated acceptance of landscape change. **Encouragement is to be given to proposals which repower and/or extend existing wind and solar energy developments.**

When determining planning applications for large scale on-shore wind and solar energy development in Priority Areas, significant weight will be given to the proposal's contribution to reducing Wales' greenhouse gas emissions and meeting our decarbonisation and renewable energy targets.

Planning applications must demonstrate **how local social, economic and environmental benefits have been provided for** and the following adverse impacts have been minimised:

- landscape and visual impacts;
- cumulative impacts;
- the setting of National Parks and Areas of Outstanding Natural Beauty;
- visual dominance, shadow flicker, reflected light or noise impacts;
- electromagnetic disturbance to existing communications systems; and
- the following identified protected assets:
 - archaeological, architectural or historic assets;
 - nature conservation sites and species;
 - natural resources or reserves.

Suitable access to the site for construction and maintenance purposes must be provided. Plans must also be in place for the end of the development's lifetime, including the removal of all infrastructure as soon as their use ceases and the appropriate after-use of the site.

Policy 11 – Wind and Solar Energy Outside of Priority Areas

Outside of the Priority Areas for Solar and Wind, planning applications for large scale wind and solar development must demonstrate the proposal is acceptable, in accordance with the criteria below.

Encouragement is to be given to proposals which repower and/or extend existing wind and solar energy developments.

Planning applications must demonstrate **how local social, economic and environmental benefits have been provided for** and that there are no unacceptable adverse effects on, or due to, the following:

- landscape and visual impacts;
- cumulative impacts;
- the setting of National Parks and Areas of Outstanding Natural Beauty;
- visual dominance, shadow flicker, reflected light or noise impacts;
- electromagnetic disturbance to existing communications systems; and
- the following identified protected assets:
 - archaeological, architectural or historic assets;
 - nature conservation sites and species;
 - natural resources or reserves.


Suitable access to the site for construction and maintenance purposes must be provided. Plans must also be in place for the end of the development's lifetime, including the removal of all infrastructure as soon as their use ceases and the appropriate after-use of the site.

Recommendation for changes to the supporting text in NDF Chapter 4

- 25) Under the heading Renewable Energy add a new paragraph after the first paragraph.

'It is recognised that technological changes in the design of modern large-scale wind turbines enable maximum renewable generation to be achieved from wind turbines in the range 200-250m blade to tip height.'

Consultation Response Form

Your name	Mr Peter J Frampton
Your address	Oriel House 42 North Bar Banbury OX16 0TH
Preferred contact details (email/phone/post)	 Peter.frampton@framptons-planning.com
<u>Organisation (if applicable)</u>	Framptons Town Planning

1. NDF Outcomes (chapter 3)

The NDF has proposed 11 Outcomes as an ambition of where we want to be in 20 years' time.

- Overall, to what extent do you agree or disagree the 11 Outcomes are a realistic vision for the NDF?

[illegible]

- To what extent do you agree with the 11 Outcomes as ambitions for the NDF?

Agree with all of them	Agree with most of them	Agree with some of them	Agree with none of them	<i>Don't know</i>	<i>No opinion</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- If you disagree with any of the 11 Outcomes, please tell us why:

--

2. Spatial Strategy (policies 1 - 4)

The NDF **spatial strategy** is a guiding framework for where large-scale change and nationally important developments will be focused over the next 20 years.

- To what extent do you agree or disagree with the spatial strategy and key principles for development in...

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	<i>Don't know</i>	<i>No opinion</i>
Urban areas (Policies 1, 2 & 3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Rural areas (Policy 4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- If you have any comments on the spatial strategy or key principles for development in urban and rural areas, please tell us:

3. Affordable Housing (policy 5)

The NDF sets out the approach for providing affordable housing, encouraging local authorities, social landlords, and small and medium-sized construction and building enterprises to build more homes.

- To what extent do you agree or disagree with the approach to increasing affordable housing?

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	<i>Don't know</i>	<i>No opinion</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- If you disagree, in what other ways can the NDF approach the delivery of affordable housing?

4. Mobile Action Zones (policy 6)

- To what extent do you agree or disagree the identification of mobile action zones will be effective in encouraging better mobile coverage?

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	<i>Don't know</i>	<i>No opinion</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- If you disagree, in what other ways can the NDF improve mobile phone coverage in the areas which currently have limited access?

5. Low Emission Vehicles (policy 7)

- To what extent do you agree or disagree that policy 7 will enable and encourage the roll-out of charging infrastructure for ultra-low emission vehicles?

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	<i>Don't know</i>	<i>No opinion</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- If you disagree, in what other ways can the NDF enable and encourage the roll-out of charging infrastructure for ultra-low emission vehicles?

6. Green Infrastructure (policies 8 & 9)

- To what extent do you agree or disagree with the approach to maintaining and enhancing biodiversity and ecological networks?

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	<i>Don't know</i>	<i>No opinion</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

7. Renewable Energy and District Heat Networks (policies 10-15)

- To what extent do you agree or disagree with the NDF's policies to lower carbon emissions in Wales using...

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	<i>Don't know</i>	<i>No opinion</i>
Large scale wind and solar developments	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
District heat networks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

- If you disagree with the NDF's approaches to green infrastructure, renewable energy or district heat networks, what alternative approaches should we consider to help Wales to enhance its biodiversity and transition to a low carbon economy?

8. The Regions (policy 16)

- To what extent do you agree or disagree with the principle of developing Strategic Development Plans prepared at a regional scale?

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	<i>Don't know</i>	<i>No opinion</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The NDF identifies three overall regions of Wales, each with their own distinct opportunities and challenges. These are North Wales, Mid and South West Wales, and South East Wales.

9. North Wales (policies 17-22)

We have identified Wrexham and Deeside as the main focus of development in North Wales. A new green belt will be created to manage the form of growth. A number of coastal towns are identified as having key regional roles, while we support growth and development at Holyhead Port. We will support improved transport infrastructure in the region, including a North Wales Metro, and support better connectivity with England. North West Wales is recognised as having potential to supply low-carbon energy on a strategic scale.

- To what extent do you agree or disagree with the proposed policies and approach for the North Region?

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	<i>Don't know</i>	<i>No opinion</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

10. Mid and South West Wales (policies 23-26)

Swansea Bay and Llanelli is the main urban area within the region and is our preferred location for growth. We also identify a number of rural and market towns, and the four Haven Towns in Pembrokeshire, as being regionally important. The haven Waterway is nationally important and its development is supported. We support proposals for a Swansea Bay Metro.

- To what extent do you agree or disagree with the proposed policies and approach for the Mid and South West Region?

Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree	<i>Don't know</i>	<i>No opinion</i>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

11. South East Wales (policies 27-33)

In South East Wales we are proposing to enhance Cardiff's role as the capital and secure more sustainable growth in Newport and the Valleys. A green belt around Newport and eastern parts of the region will support the spatial strategy and focus development on existing cities and towns. Transport Orientated Development, using locations benefitting from mainline railway and Metro stations, will shape the approach to development across the region. There is support for the growth and development of Cardiff Airport.

- To what extent do you agree or disagree with the proposed policies and approach for the South East Region?

[illegible]

If you have any comments about the NDF's approach or policies to the three regions, please tell us. If you have any alternatives, please explain them and tell us why you think they would be better.

--

12. Integrated Sustainability Appraisal

As part of the consultation process, an Integrated Sustainability Appraisal (ISA) was conducted to assess the social, economic and environmental impacts of a plan. The report identified a number of monitoring indicators, including health, equalities, Welsh language, the impact on rural communities, children's rights, climate change and economic development.

- Do you have any comments on the findings of the Integrated Sustainability Appraisal Report? Please outline any further alternative monitoring indicators you consider would strengthen the ISA.

13. Habitats Regulations Assessment

As part of the development of the NDF, a Habitats Regulations Assessment (HRA) was undertaken. The purpose of the HRA process is to identify, assess and address any 'significant effects' of the plan on sites such as Special Areas of Conservation and Special Protection Areas for birds.

- Do you have any comments on the Habitats Regulations Assessment report?

14. Welsh Language

We would like to know your views on the effects that the NDF would have on the Welsh language, specifically on opportunities for people to use Welsh and on treating the Welsh language no less favourably than English.

- What effects do you think there would be? How could positive effects be increased, or negative effects be mitigated?

Please also explain how you believe the proposed NDF could be formulated or changed so as to have:

- I. positive effects or increased positive effects on opportunities for people to use the Welsh language and on treating the Welsh language no less favourably than the English language, and
- II. no adverse effects on opportunities for people to use the Welsh language and on treating the Welsh language no less favourably than the English language.

15. Further comments

- Are there any further comments that you would like to make on the NDF, or any alternative proposals you feel we should consider?

16. Are you...?

Providing your own personal response	<input type="checkbox"/>
Submitting a response on behalf of an organisation	<input checked="" type="checkbox"/>

Responses to the consultation will be shared with the National Assembly for Wales and are likely to be made public, on the internet or in a report. If you would prefer your response to remain anonymous, please tick here	<input type="checkbox"/>
--	--------------------------

NDF Consultation Response

Llangurig Priority Area

Identification of Priority Areas

1. The draft National Development Framework 2020 – 2040 (“NDF”) identifies 11 Priority Areas for both solar and wind. Within these Priority Areas there is a presumption in favour of wind and solar development where the principle of landscape change is accepted.
2. In order to identify these Priority Areas, Ove Arup & Partners Ltd (“ARUP”), on behalf of the Welsh Government, undertook a 2 stage assessment:

Stage 1 Defining fixed constraints (for example National Park and protected European Sites) and applying these to identify initial priority areas for wind and solar development which would be subject to further refinement.

Stage 2 Consider other constraints (such as landscape and historic environment) to refine the initial priority areas in order to identify the final Priority Areas for inclusion within the NDF.

3. At stage 1 of the process ARUP used the fixed constraints to produce two plans, one for wind and one for solar (these plans were included with the Stage 1 assessment at pages 19 and 20). These plans identified the areas of greatest opportunity (dark green), the areas of varying opportunity (light green) and the areas of least opportunity (grey).
4. ARUP then ring-fenced 15 areas that were identified as the initial priority areas to be brought forward to the Stage 2 refinement exercise; these areas are shown on the plan at page 24 of the Stage 1 assessment.
5. When considering what areas to include as initial priority areas ARUP took the following into consideration:
 - i. maximising the areas of greatest opportunity where possible, focussing on the areas which could accommodate development at a scale of over 10MW;
 - ii. each area has at least some grid infrastructure and road infrastructure within it;
 - iii. wind speed, this was to used highlight areas where energy generation potential could be maximised; and
 - iv. a final cross check and review against the TAN 8 SSAs.

Llangurig Priority Area

6. There is one large area around Llangurig in Mid-Wales that is identified as an area of greatest opportunity but it is then not ring-fenced as an initial priority area. It is therefore not brought

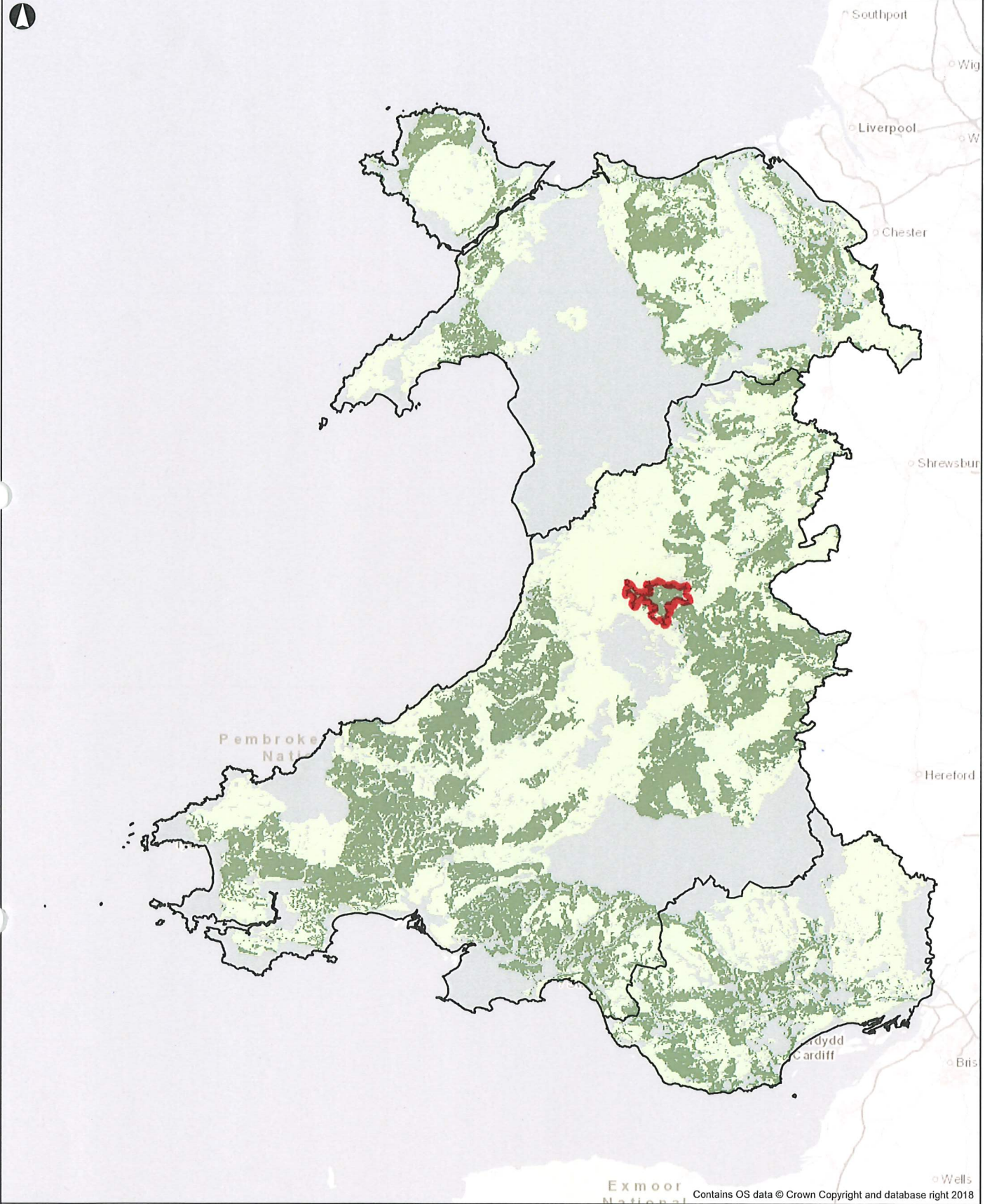
Annex 1

forward to the Stage 2 refinement exercise and is not included as a Priority Area within the NDF.

7. The area in question is marked on the attached plans (being the same plans at page 19 and 20 of the Stage 1 assessment). It is clearly a large area which is marked in dark green as an area of greatest opportunity. It is not, however, identified on the plan at page 24 which shows the initial priority areas that are to be brought forward to the Stage 2 assessment. Duplicate copies of the plans at pages 19, 20 and 24 with the area in question marked in red have been included with this submission.
8. There is no explanation as to why the Llangurig area was not included as an initial priority area. There is an existing wind farm in the area and there is the opportunity to co-locate new wind farms with this existing wind farm.
9. For the avoidance of doubt none of the matters considered by ARUP when identifying the 15 initial priority areas would preclude the Llangurig area being included as one of the initial priority areas:
 - i. The area is clearly large enough to accommodate development at a scale of over 10MW. Furthermore, given the areas location to Priority Areas 5 and 6, one of these areas could easily have been extended to include the Llangurig area.
 - ii. As there is an existing wind farm in the area there is existing grid infrastructure and road infrastructure.
 - iii. The area has excellent wind speed as identified on the plan at Appendix D to the Stage 1 assessment.
 - iv. Whilst the area is not within a TAN 8 SSA the majority of Priority Areas are not within SSAs.
10. Furthermore, having reviewed the other constraints mapping that was provided as part of the Stage 2 assessment it is clear that the other constraints that were applied would not have affected the designation of the Llangurig area as a final Priority Area.
11. Had the Llangurig area been identified as one of the initial priority areas (either as a stand alone area or as part of areas 5 or 6) it is highly likely that it would not have been removed as part of the Stage 2 refinement exercise and it would now be identified as a Priority Area where there is a presumption in favour of wind and solar development.
12. The omission of the Llangurig area should be reconsidered. The objective of the ARUP assessment exercise was to identify the best areas for wind and solar development. The Llangurig area is clearly one of the most suitable areas for wind and solar development and it has been omitted without any explanation or justification.

Annex 1

13. The Stage 2 assessment should be applied to the Llangurig area and, subject to that assessment, it should be included as a standalone Priority Area or included as part of Priority Area 5 or 6.



Contains OS data © Crown Copyright and database right 2018

- Welsh Regions
- Areas of greatest opportunity
- Areas of varying opportunity
- Areas of least opportunity

F1	2019-01-17	FH	BL	AC
Issue	Date	By	Chkd	Appd

ARUP

63 St Thomas Street
Bristol, BS1 6JZ
T +44 117 976 5432 D +44 117 958 6951
www.arup.com

Client
Welsh Government

Job Title
Energy Potential Wales



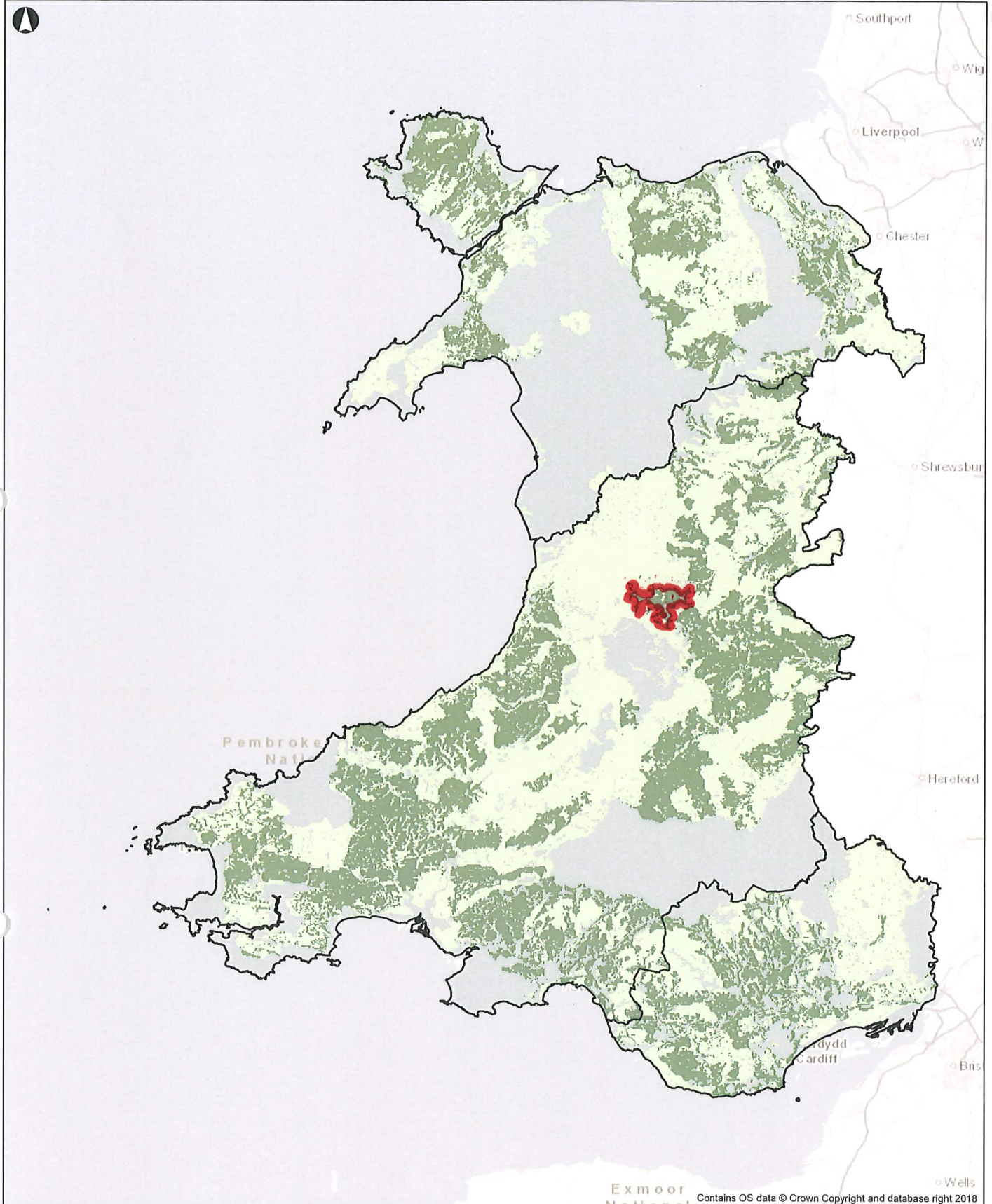
Wind Preferred Scenario

Scale at A3 1:840,000

Job No 263184-00
Drawing Status For Issue

Drawing No 005

Issue F1



Welsh Regions

- Areas of greatest opportunity
- Areas of varying opportunity
- Areas of least opportunity

ARUP

63 St Thomas Street
Bristol, BS1 6JZ
T +44 117 976 5432 D +44 117 988 6951
www.arup.com

Client
Welsh Government

Job Title
Energy Potential Wales

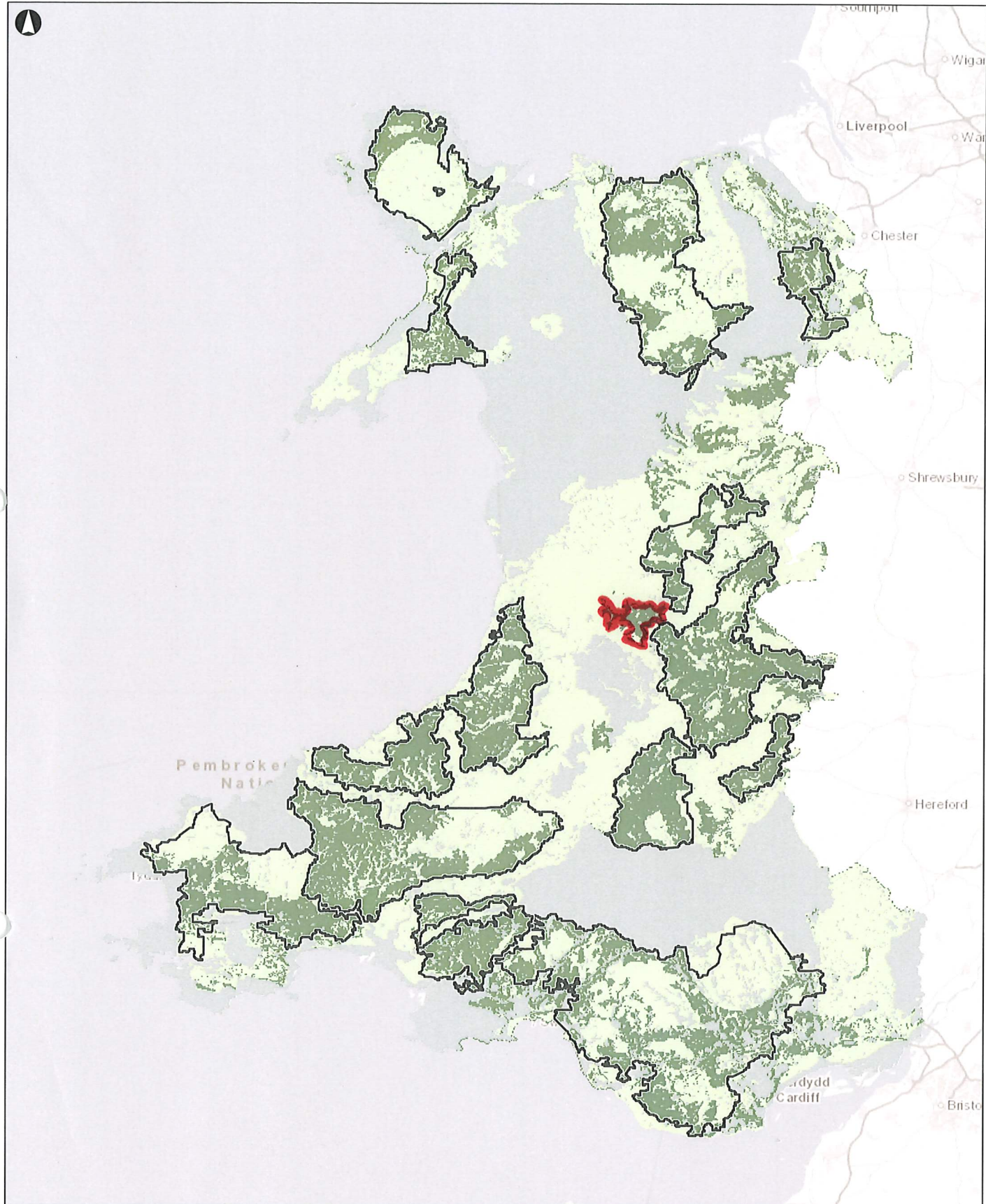
Scale at A3 **1:840,000**

Job No **263184-00** Drawing Status **For Issue**

Drawing No **006** Issue **F1**

F1	2019-01-17	FH	BL	AC
Issue	Date	By	Chkd	Appd

0	10,000	20,000	40,000
---	--------	--------	--------



- Priority Area for Refinement
- Areas of greatest opportunity
- Areas of varying opportunity
- Areas of least opportunity

Contains OS data © Crown Copyright and database right 2018

P1	2019-01-08	FH	BL	AC
Issue	Date	By	Chkd	Appd

ARUP

63 St Thomas Street
Bristol, BS1 6JZ
T +44 117 976 5432 D +44 117 958 6951
www.arup.com

Client
Welsh Government

Job Title
Energy Potential Wales

0 9,500 19,000 38,000
Metres

**Priority Areas for Refinement
(Wind Preferred Scenario)**

Scale at A3 **1:800,000**

Job No **263184-00** Drawing Status **Preliminary**

Drawing No
007

Issue
P1