



National Planning Framework 4
Call for Ideas
Scottish Government
Victoria Quay
Edinburgh
EH6 6QQ

By email to: scotplan@gov.scot

30 April 2020

Dear Team,

NATIONAL PLANNING FRAMEWORK 4 CALL FOR IDEAS – SCOTTISHPOWER RENEWABLES RESPONSE

We welcome the opportunity to respond to the National Planning Framework 4 Call for Ideas.

ScottishPower is a major UK energy company with network, retail and renewable generation interests. It is part of the Iberdrola group, an international utility and the world's leading renewable energy developer.

ScottishPower Renewables (SPR) is a leading developer of wind power, and part of the Iberdrola Group, the world's leading renewables developer. With over 2 GW of operational capacity, our renewables business, SPR is helping to drive the Iberdrola Group's ambition of reaching carbon neutrality by 2050. SPR is at the forefront of the development of the renewables industry through pioneering ideas, forward thinking and outstanding innovation.

Our team leads the Group's international offshore development, with our ambitious growth plans including offshore windfarms in East Anglia and aspirations for future offshore wind sites in both Scotland and England. We have over 40 operational onshore windfarms and manage all our sites through our Control Centre at Whitelee Windfarm. We have repowered two of our operational windfarms to date and anticipate a programme of repowering into the future. We strive to incorporate the most efficient and cost-effective technologies into existing sites, thereby delivering clean, green energy at the lowest cost to consumers, whilst minimising environmental impacts.

The NPF4 is being prepared at a time when the Scottish Government has declared a climate emergency and the Scottish Parliament has passed new legislation to tackle climate change through the introduction of emission reduction targets of 75% by 2030 and Net Zero by 2045. The UK Climate Change Committee (CCC) estimates that delivering 'net zero' will require a fourfold increase in renewable energy deployment across the UK, including ~35 GW of onshore wind by 2035, which would require deployment of ~1.4 GW per annum, as well as some 75 GW of offshore wind by 2050. In addition, more than 8 GW of existing onshore wind across the UK (two thirds of current capacity) could be retired over the next two decades. It is therefore vital that NPF4 needs to be designed to create a

planning policy framework that helps facilitate the level of renewable growth required in Scotland.

We welcome that the Scottish Government acknowledges climate change as the priority issue for NPF4 and we believe this aligns with SPR's vision for renewable deployment to tackle climate change. SPR believes the preparation of NPF4 provides a significant opportunity for the Scottish Government to address any weaknesses of the existing SPP/NPF3 and to continue to lead the way in supporting the urgent deployment of renewable technologies.

Supporting new, large scale onshore wind development is critical to meet net zero and address the climate emergency with a clear focus on promoting co-location of renewable technologies, ensuring that the renewables potential of a site can be maximised, in particular recognising the role of solar and energy storage technologies. Support for the deployment of the most efficient renewable technologies is required to ensure new sites and repowered sites are as economic and effective as possible.

Renewable energy developments should be embraced as a tangible method of tackling climate change and meeting net zero targets. NPF4 must therefore establish a positive policy framework for renewable energy schemes across Scotland, setting the tone and detail necessary for delivery at a national, regional and local level. NPF4 needs to be flexible to the needs of the energy industry as a key facilitator in the delivery of these targets.

We have provided our views of the priorities for NPF4 within Annex 1 and comments on the specific questions posed by the Call for Ideas within Annex 2.

I hope this input is helpful in addressing some of the key issues impacting the preparation of NPF4. Please feel free to contact me on 0141 614 3103, or at RFurlong@ScottishPower.com should you require any additional information.

Yours faithfully,



Rachel Furlong
Planning & Environmental Policy Manager

ANNEX 1: SPR VIEW OF PRIORITIES FOR NPF4

Meeting the Net Zero Challenge

We welcome the Scottish Government's commitment to meeting a 'Net Zero' emissions target by 2045, and we agree with the Committee on Climate Change (CCC) that there needs to be a step change in policy ambition to get on track with meeting this.

As the CCC's Net Zero report made clear, reaching net zero emissions across the UK will require an increased deployment of renewable energy generation including ~35 GW of onshore wind by 2035, which would require deployment of ~1.4 GW per annum, as well some 75 GW of offshore wind by 2050. In addition, more than 8 GW of existing onshore wind across the UK (two thirds of current capacity) could be retired over the next two decades and it is vital that projects to replace or enhance the capacity at these existing sites are able to participate in CfD auctions.

Furthermore, to contribute a resource-appropriate share to the UK's need to achieve around 75 GW offshore wind by 2050 (as recommended by the CCC), there is a need to add significantly to the future pipeline in Scotland.

The NPF4 offers the opportunity to ensure that Scotland leads in the response to the global climate emergency whilst enabling Scottish communities and businesses to benefit from the associated economic benefits the renewables industry can provide.

A report for Renewable UK¹ shows that the benefits of deploying 35 GW of onshore wind by 2035, consistent with the CCC net zero recommendations, include:

- tripling current employment, supporting 31,000 jobs by 2035 with 14,000 directly employed
- reducing electricity costs by up to 7% compared to natural gas (with carbon cost) in 2035, saving the average household £50 per year
- lifting productivity throughout the UK, particularly in Scotland, Wales and Northern Ireland
- increasing exports to £360m per year by 2035, capitalising on a global market expected to increase fourfold from 2019.

Since the publication of the existing policy frameworks for renewable energy technologies including the National Planning Framework (NPF), Scottish Planning Policy (SPP), the Scottish Energy Strategy (SES) and Onshore Wind Policy Statement (OWPS), the Scottish Government has declared a climate emergency and the Scottish Parliament has legislated for new emissions reductions targets including for Net Zero by 2045.

As the First Minister (FM) noted in the Scottish Programme for Government in September 2019, planning policy will need to undergo a "fundamental review", in order to "more radically reduce emissions." The FM also highlighted that "the global climate emergency means that the time is right for wide-ranging debate on more radical planning policy options."

More specifically, we welcome the Scottish Government's commitment to working with stakeholders to find ways of addressing any barriers to onshore wind deployment to deliver

¹ Vivid Economics: Quantifying the economic benefits of onshore wind to the UK (July 2019)
<http://www.vivideconomics.com/publications/quantifying-benefits-of-onshore-wind-to-the-uk>

commercially viable projects in Scotland in suitable locations. To enable Scotland to meet its Net Zero ambitions, the NPF4 should seek to ensure the Planning System in Scotland delivers:

- A positive, planning framework at a national, regional and local level which supports the deployment of renewable generation recognising renewables as strategic infrastructure of national importance
- A well-resourced system which facilitates timely decisions and invests in stakeholder resources to support this
- Support for the use of the most efficient technologies including taller turbines, the co-location of battery storage and solar technologies and flexible consenting approaches to support the deployment of new and innovative technologies
- Policy support for consents in perpetuity for onshore wind in line with other development
- A presumption in favour of repowering and life extension to ensure Scotland's existing renewable capacity is maintained and optimised.

We set out further below our perspective on these and a number of other aspects of the future planning framework.

The Use of the Most Efficient Technologies

In order to develop the most cost-effective projects which can bid into forthcoming Contract for Difference auctions, developers will need to utilise the most up-to-date and efficient technology, including the use of larger turbines and co-location of compatible technologies such as battery storage and solar.

To facilitate this, project consents will need to allow for the use of modern turbines with taller towers, larger rotors and increased blade tip heights. Turbine suppliers have already moved to keep pace with the European markets and developers in Scotland and the UK generally will need to consider this when considering technology availability.

We welcome the recognition within the Onshore Wind Policy Statement (2017) of the trend towards larger turbines and we are working with the Government, planning authorities and key stakeholders to help develop a better shared understanding of the drivers for larger turbines and how to realise the associated benefits. This process of engagement should help ensure that national planning policy translates the need for larger, more efficient turbines into planning policy.

The NPF4 should therefore support the deployment of taller turbines on new and repowered sites and include flexibility to accommodate the speed of technological change. Regarding repowering, we would note that the use of larger and more efficient turbine technologies as part of a powering programme will be essential to maintaining and promoting levels of decarbonised generation capacity in a cost-effective way. Repowering will help Scotland meet its emission reduction targets and, indeed, ensure that Scotland's level of renewable capacity does not regress.

In terms of assessment, we welcome the approach taken by Statutory Advisors such as Scottish Natural Heritage (SNH) that applications for larger turbines should be undertaken in line with existing Landscape and Visual Assessment Guidance. It is our view that, in line with relevant policy, cumulative landscape and visual comparisons with existing adjacent smaller scale turbines, with smaller rotor sizes, should not be determinative and should not restrict the drive towards use of the latest larger turbine technology.

In addition to more modern turbines, innovations in electricity storage and solar photovoltaics are advancing rapidly and the co-location of these technologies with onshore wind projects can help increase the efficiency of the whole site. Planning policy should facilitate these innovations with clear support for the deployment of onshore wind, solar and energy storage, whether on standalone or co-located sites.

In summary:

- NPF4 is an opportunity to provide a positive policy framework to enable the deployment of renewable developments within the context of the climate emergency, recognising that wind, solar and energy storage are the most deliverable options, whether on standalone or co-located sites, to support cost-effective progress towards decarbonising the power sector.
- NPF4 should be supportive of the increasing innovation within the renewables sector, such as larger turbines, and seek to encourage advanced/new technologies through flexible policies and minimal restrictions.
- Energy storage, in particular utility scale battery storage, will be vital in providing flexibility and back up capacity to the grid to ensure grid stability and this should be supported within NPF4.

Consents in Perpetuity

With the continual advancement of technology and the development of more efficient wind turbines, it is generally expected that machines will be capable of generating over a longer period of time. It follows that we are increasingly looking to secure longer term consents to minimise the need to apply for life extensions for existing projects. One option would be to explore the granting of consents in perpetuity for projects, which would bring onshore wind in line with other types of development.

Scottish Planning Policy (2014) is helpful in that it recognises that areas identified for windfarms should be considered suitable for use in perpetuity and that the current use of the site as a windfarm should be a material consideration in the planning process when considering repowering or life extension applications. Furthermore, the Onshore Wind Policy Statement (2017) reaffirms the Scottish Government's clear support in principle for repowering and confirms that there are no current statutory or legislative limits to the duration of consent for a proposed development.

In our view, the forthcoming NPF4 should go further and confirm that renewable energy developments such as onshore wind should be consented in perpetuity in line with other developments. In this context, we would note that it is our expectation that developers would still look to include a planning condition which will require the decommissioning of a scheme in the event that it is not operational over a period of 12 months or within a timescale which is otherwise agreed with the Local Planning Authority. This kind of step would remove any artificial timeline/restriction on a development's operational life and ensure that decisions to remove a scheme are more sensibly based on the technical capability of the asset to run safely and controlled by Health and Safety Regulations.

In summary:

- We would welcome further consideration of the need to review time-limited consents for renewable energy developments, in line with the current Scottish Planning Policy and Onshore Wind Policy Statement which confirms there are no statutory or legislative limits to the duration of a consent.

- In our view, the forthcoming NPF4 should go further and confirm that renewable energy developments should be consented in perpetuity in line with other developments.
- Planning authorities should only be able to impose time-limited consents if they can demonstrate exceptional circumstances for requiring a temporary permission.

Repowering and Life Extension

We anticipate a significant programme of repowering of onshore wind sites over the coming years with the aim of incorporating the most efficient and cost-effective technologies into existing sites. This can range from full repowering, where existing infrastructure is removed from the site and replaced with new turbines typically in a different layout to refurbishment where original turbines are replaced alongside the use of existing foundations and towers. Life extensions would allow generators to operate turbines beyond the end of their planned economic life and are essential to ensure current levels of onshore wind capacity are maintained.

Repowering will be required in order to maintain and optimise the contribution of renewables to date and will ensure that ambitions regarding future renewables targets are not undermined. A recent report by Renewable UK (April 2019)² revealed that by 2040 the UK could lose up to 8 GW from the current 12 GW onshore wind installed capacity without action from governments. Scotland could be particularly impacted and could lose up to 5 GW (two thirds of current installed capacity). The report highlights that other European countries are developing and using advanced onshore wind turbine technologies, while the UK is in danger of missing out on the most modern and efficient technologies.

Without clear direction from policy makers, large amounts of renewable capacity would be lost or decommissioned, and it would result in a backsliding of progress towards meeting net zero ambitions. It is evident that a clear pipeline of repowering projects could be secured, bringing investment and growth to local communities, with the appropriate framework.

Therefore, we would ask that NPF4 include a presumption in favour of repowering and life extension. Whilst we recognise that appropriate consideration of any planning proposal is required, a presumption in favour would set a positive context and give local planning authorities a key steer on the importance of streamlined, positive determinations when potential impacts are acceptable or can be mitigated.

Policy makers should therefore seek to put in place supportive policies for repowering to ensure existing renewable deployment levels are maintained. In this context, it is important that NPF4 provides clarification that applications for repowering will be treated supportively, especially given that the sites were previously determined to be suitable for windfarm development.

In summary:

- NPF4 should include a presumption in favour of repowering and should support the rollout of modern and efficient technologies to improve generation capacity through the upgrading of existing onshore wind sites.

² Renewable UK: Onshore Wind: The UK's Next Generation (April 2019)
<https://www.renewableuk.com/news/448409/Repowering-onshore-wind-farms--a-vital-move-to-bridge-the-UKs-looming-energy-gap.htm>

- Repowering will be a continual process and any visual assessments should acknowledge the likelihood of variations in cumulative impact as neighbouring sites are redesigned over time.
- Any repowering sites requiring the submission of a planning application should be accompanied by a streamlined Environmental Impact Assessment (EIA) that considers the 'with windfarm' scenario as the baseline.

Spatial Approach for Onshore Wind

Public support for onshore wind is at an all-time high as shown by the November 2019 BEIS Public Attitudes Tracker³ where 78% of the people polled supported onshore wind. As projects move towards the use of taller and more efficient turbines, it is important that the Planning System moves to facilitate this change.

In terms of the spatial approach to planning for onshore wind within NPF4, it is our view that this needs to be considered in light of the Climate Emergency and the legally binding Net Zero target. We acknowledge the need to protect Scotland's best landscapes with important protections provided by the National Parks and National Scenic Areas designations.

However, given the complex and diverse nature of the areas deemed 'Wild Land', in addition to concerns surrounding gaps and errors within the methodology and assumptions used in its creation, we have continuing concerns regarding the inclusion of Wild Land within Group 2 of the SPP and the treatment of buffers or separation distances around these areas.

We would, therefore, suggest that sufficient existing designations effectively ensure the appropriate location of onshore wind developments so that additional restrictions are not required within NPF4.

In summary:

- NPF4 should consider how the Planning System can best respond to the challenge presented by the climate emergency and review the protection offered to Wild Land within the current SPP. Given the protections already offered by the inclusion of National Scenic Areas and National Parks, we would query whether additional protections are needed.

The Role of Local Authorities

Local Planning Authorities (LPAs) have a key role to play in efforts to tackle climate change and contribute to the delivery of Scotland's 2030 and 2045 emission reduction targets.

We welcome the provision of strategic rather than local guidance on the appropriate siting of onshore wind, in support of ensuring a better coordinated approach between LPAs. However, Local Development Plans (LPPs) must also be prepared in accordance with the relevant national planning policy (for example, the National Planning Framework in Scotland). Ensuring consistency with national policy is vital if LPPs are to facilitate the effective delivery of our renewable energy aspirations. NPF4 should provide further clarity on this point.

LPPs should also recognise the economic, social and environmental benefits (as well as potential impacts) of renewables on a local and regional/national scale. This will help to ensure that decisions on applications are made within an appropriate policy framework.

³https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/844940/BEIS_Public_Attitudes_Tracker_Wave_31_key_findings.pdf

While Landscape Capacity Studies (LCSs) may be a useful tool for LPAs in considering potential landscape impacts, it is important to recognise that they are strategic studies designed to provide high level information to assist decision makers and should not be considered a definitive assessment of an individual project's suitability. Site specific assessment should always hold more weight in the planning process and all proposals should be considered on a case by case basis. We therefore support the move to refer to these documents as Landscape Sensitivity Studies (LSS).

To ensure LSS continue to be a useful tool for LPAs, we would recommend that LSS should be reviewed regularly to ensure that appropriate consideration is given to more recent and more efficient technologies and consideration of alternative approaches such as repowering, refurbishment or life extensions is also encouraged.

In addition, LSS should not seek to impose arbitrary height restrictions on wind turbines and should instead recognise that site specific environmental assessments should be afforded primacy in informing the overall acceptability of a scheme, taking account of best practice guidance and advice. We would also like to see recognition of the wider context within which LSSs sit with particular regard to national policy and new developments, such as, the likely demand for larger turbines.

In summary:

- NPF4 should clarify that LDPs should be prepared in accordance with national policy such as the NPF4 and should explicitly recognise the key role LPAs and LDPs play in delivering progress towards meeting Scotland's Net Zero emission reduction target.
- We support the view that Landscape Capacity Studies should be replaced by Landscape Sensitivity Studies (a view shared by SNH) and we would welcome clarification of the role of LSS/LCS within NPF4 to ensure that they are used as indicative strategic studies providing high level advice of sensitivity, but not replacing site-specific Landscape Visual Assessments.

Peatland Restoration and Windfarm Development

ScottishPower Renewables is committed to over 200 ecological activities on our onshore windfarms, the majority of which concern the restoration of degraded habitat, creation of native woodlands and species monitoring. We strive to maximise opportunities to deliver high quality environmental outcomes and create an overall net gain for species, habitats and biodiversity as a whole. Since 2008, we have invested over £4.5 million into our ecological commitments providing opportunities for local companies and contractors.

Most of our habitat management work involves the restoration of blanket bog which has been degraded through a legacy of drainage for agriculture and commercial forestry plantations. The CCC have identified peatland restoration as a key opportunity for Scotland to achieve net zero by 2045⁴. We have so far committed to restoring 8,500 hectares of degraded bog - the equivalent area of over 5,500 football pitches. This work is vitally important to the conservation of bogs and their role in climate change.

We are at the forefront of research, innovation and implementation of peatland restoration. The value of this work has been recognised to have benefits beyond the wind industry. SPR's

⁴ <https://www.theccc.org.uk/wp-content/uploads/2019/05/Net-Zero-The-UKs-contribution-to-stopping-global-warming.pdf>

restoration work has been highlighted as a good practice case study by the International Union for Conservation of Nature, demonstrating SPR's success in peatland restoration⁵. Moreover, SPR were awarded the Sustainable Development Award for innovative bog restoration work at the 2015 RSPB Nature of Scotland's Awards, demonstrating that onshore wind developers have had an important role to play in protecting Scotland's peatland.

Solar

Given the potential for increased stand alone, or co-located, solar projects, we would welcome explicit support for solar deployment within NPF4 through clear recognition of its role in helping to address climate change. In particular, climate change action should be recognised as a priority material consideration and, in this context, the advantages of solar generation for both large and smaller scale projects should be acknowledged.

Energy Storage

It would be beneficial if NPF4 contained explicit support for energy storage and explanatory text to emphasise the critical role energy storage can play in facilitating further deployment of renewables. NPF4 should create a policy framework to enable consents for energy storage to be dealt with swiftly, consistently and with predictable results.

Hybrid sites / co-location

Technological advancements in the renewable energy sector is rightly progressing swiftly to keep pace with our emission reduction targets. As technologies develop, hybrid sites, which make use of more than low carbon technology, have the potential to make a significant contribution to decarbonising electricity. However, given the speed of technology development, it is sometimes necessary to consent projects before the detailed design has been completed. Therefore, flexibility is required to ensure consents can incorporate new technologies within the final project. The Planning System should provide the flexibility within consents to accommodate the speed of change in energy storage and co-location technologies.

The Rochdale envelope⁶ approach is widely used within the offshore wind sector and allows for projects to be consented within defined parameters to facilitate the use of new and efficient technology types, defined through the final stages of the design process. We would welcome consideration of the use of the Rochdale envelope approach within onshore wind/hybrid consenting to allow projects to be realised in advance of grid availability.

Offshore Wind

The offshore wind messaging contained in NPF3 should be expanded on in NPF4 to acknowledge the growing importance of the offshore wind sector and the crucial role that national level policies have in securing support for offshore wind developments. The NPF4 should also make clear links with the Sector Marine Plan for Offshore Wind and the Offshore Wind Policy Statement being produced by Marine Scotland, ensuring that NPF4 support the delivery of the ambitions of these plans. Furthermore, NPF4 should retain and expand the National Development designation for the onshore elements of offshore renewable projects.

⁵ <https://www.iucn-uk-peatlandprogramme.org/resources/restoration-practice/demonstrating-success>

⁶ <https://infrastructure.planninginspectorate.gov.uk/wp-content/uploads/2013/05/Advice-note-9.-Rochdale-envelope-web.pdf>

Innovation and Digitalisation

We would welcome consideration of how the planning system can continue to support the digitalisation agenda, including through the support for full digitalisation of the EIA process. As well as removing the need for developers to print lengthy application documents, a move to digital EIA would benefit local communities and stakeholders alike by offering an increased range of options to view the EIA (i.e. visual or audio) and allow quick identification of relevant topics/information with enhanced search capabilities.

ANNEX 2: SPR RESPONSE TO CONSULTATION QUESTIONS

1. What development will we need to address climate change?

We consider that sensibly located renewable energy developments are key to supporting sustainable development and progressing towards meeting the Scottish Government's 2030 emissions reduction target and the 2045 net zero target. As such, we believe that support for significantly increased renewable energy generation through onshore/offshore wind, solar, energy storage and emerging technologies should be stated as a priority within NPF4.

Accordingly, we consider that NPF4 should contain wording that recognises the crucial role to be played by renewable energy developments and reiterates that there is a presumption in favour of deploying renewable generation projects across Scotland to help address climate change. More specifically, we think that the wording of the presumption in favour of sustainable development in the current SPP should be simplified within NPF4 so as to better express policy support for sustainable development that contributes to climate change objectives.

In this context, NPF4 should also contain text recognising that renewable energy projects can provide wider environmental benefits, such as contributing to resilient ecological networks, restoring degraded peatlands and restoring grasslands.

We have provided comments on specific technologies within Annex 1.

2. How can planning best support our quality of life, health and wellbeing in the future?

The creation of a clear policy framework that facilitates the drive towards meeting the net zero target has multiple potential benefits including improvements to quality of life, health and wellbeing, as well as wider economic benefits. The role of clean renewable energy in decarbonising the power system and moving beyond a system heavily reliant on fossil fuels could be explicitly recognised, with the associated reduction in greenhouse gas emissions and other air quality benefits resulting in significant improvements to environmental quality and health.

3. What does planning need to do to enable development and investment in our economy so that it benefits everyone?

Through NPF4 there is an opportunity to create a positive development context for renewables which can help in promoting investment in renewable technologies and development on the ground. The growth of the renewables industry has been a success story for Scotland, with many economic benefits being realised over the past 20 years, both nationally and locally.

For example, as the 2017 BVG Associates report “Economic benefits from onshore wind farms”⁷ identified there have been multiple economic benefits delivered by eight of SPR’s onshore wind farms, namely:

- £1,276 million gross value-added in the UK
- £297 million local value-added
- 31,118 UK FTE years, including 7,768 local FTE years
- £814 million UK earnings, including £194 million local earnings
- £59 million community benefit funding

Thus, by promoting future renewable energy projects, the NPF4 can, in turn, help to ensure that communities and businesses in Scotland continue to benefit from the economic opportunities renewable energy projects can provide.

4. What policies are needed to improve, protect and strengthen the special character of our places?

Annex 1 of our response includes detailed comments on the policy and proposals we consider need to be brought forward within the NPF4 as part of an approach focussed on promoting the future deployment of sensibly located renewable energy projects.

5. What infrastructure do we need to build to realise our long-term aspirations?

Large scale renewable energy developments should be recognised as key infrastructure as they will need to be central to Scotland’s decarbonised electricity system in the future.

We consider that a key part of this infrastructure development focussed on building a decarbonised power system will need to be a significant programme of repowering of onshore wind sites over the coming years, with the aim of incorporating the most efficient and cost-effective technologies into existing sites. Repowering will be required in order to maintain and increase the contribution of renewables to date and will ensure that ambitions regarding future renewables targets are not undermined. Accordingly, we consider that NPF4 should include a presumption in favour of repowering and life extension with support for the deployment of taller turbines on [new and] repowered sites.

In addition, without appropriate investment in grid infrastructure, there is a concern that the decarbonisation of energy generation in Scotland will not be fully realised within the proposed timescales. A joined-up approach that considers strategic grid requirements alongside a flexible and supportive renewable policy framework should provide a way to deliver the modern energy infrastructure needed across Scotland.

In addition to grid infrastructure upgrades, ancillary and appropriate back-up facilities should be given priority status to ensure the deployment of renewable generation is facilitated by a smarter and more flexible energy system.

⁷ <https://bvgaassociates.com/wp-content/uploads/2017/09/BVGA-18510-Economic-impact-onshore-wind-report-r3.pdf>