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Potential Energy

Are Development Plans assisting
the delivery of renewable energy?

May 2016

Executive Summary

The UK has an ambitious target of meeting 15% of its energy demand from renewable energy sources by 2020. Planning has a key role to play in helping to achieve this target. Development Plans in particular can give greater certainty to developers, investors and communities as to where renewable energy developments are likely to be acceptable.

In England, the National Planning Policy Framework (NPPF) establishes an onus, albeit not an obligation, to identify areas suitable for renewable energy developments in Development Plans. Is the Development Plan system fulfilling this role, however?

Land availability and constraints

The ability of any given area to accommodate renewable energy development is subject to many factors. Green Belts, National Parks and Areas of Outstanding Natural Beauty together with landscape, ecological and heritage designations impose limitations on development within the rural landscape. Only around 40%¹ of England's rural area is subject to such designations, however, leaving significant tracts of land free from these restrictions.

What the findings indicate

Overall, it appears that the statutory Development Plan and neighbourhood planning is not keeping pace with Government aspirations by identifying land suitable for renewable energy developments.

Unsurprisingly, renewable energy generation when measured at local authority level varies considerably. All local authority areas have, therefore, been ranked in order to identify those where renewable energy generation is limited relative to both their overall size and the availability of land free of certain policy constraints. These authority areas could, therefore, be considered to have greater theoretical potential to generate more renewable energy. It is these authority areas where Development Plans have been analysed.

Unlike England, Scotland's Development Plan system has embraced the use of community contribution payments to assist in garnering community support in areas affected by renewable energy schemes. By incorporating similar approaches into Development Plans in England, developers would be able to operate with greater certainty when working to obtain the backing of local communities for renewable energy schemes.

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The Review in Figures

89% of land in England is outside of urban areas

58% of rural land is outside of Green Belt and free from restrictive designations²

6.7 million hectares of land within England is outside of Green Belt and free from restrictive designations²

6 of 20 sampled authorities are identifying areas that are considered suitable for renewable energy developments

0 no Neighbourhood Development Plans in the sampled authorities identify areas suitable for renewable energy developments

17 out of 32 authorities in Scotland promote the use of community benefit payments to help gain the backing of communities to energy developments

1 of 20 sampled authorities in England embraces community benefit payments in its Development Plan, in respect of energy developments

² As defined by National Planning Policy Framework, Footnote 9

Introduction

The UK has an obligation to meet a target of providing 15% of energy requirements from renewable energy sources by 2020 and the planning system in England has a key role to play in helping achieve this.

The UK's planning system is Development Plan led and intended to give greater certainty to communities and developers as to where development could be acceptable. Government, therefore, looks to the Development Plan as a means to identify where renewable energy developments should be appropriately located and to plan positively so as to achieve the 2020 renewable energy target.

Is the Development Plan system fulfilling this role?

Approach to analysis

Clearly there are a range of factors which affect the suitability of a given location to accommodate renewable energy developments. These range from climate conditions such as wind speeds or irradiation levels, grid capacity and connection opportunities or an area's accessibility from strategic transport networks in order to move fuel and waste. A local authority's ability to identify land for potential renewable energy developments varies, not least because of the amount and characteristics of land available within their area.

In identifying which local authorities to examine the Development Plans of, the amount of renewable energy being generated at the local authority area level³ has first been taken into account. Factored into this has been the overall size and characteristics of the authority's land so as to sample, where possible, a range of authority areas where land is constrained to differing extents (relative to their overall size⁴).

These constraints have been identified and mapped using in-house Geographical Information Systems (GIS) data. As well as illustrating the role of the Development Plan in these areas, this research also gives a broad-brush indication of authority areas with theoretical potential to increase renewable energy generation⁵.

3 The research utilises the most up to date Department of Energy and Climate Change data on renewable energy output per local authority area from 2014.

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5 Due to differences in policy between Scotland, England and Wales and the availability of GIS data, analysis of constrained land is focussed upon England.



Development Plan Context

In England, the final abolition of Regional Strategies in 2013 saw an end to regional renewable energy targets being required in the statutory Development Plan and passed down to local authority level. Whilst there were inconsistencies in how Regional Strategies set targets and accompanying policies (including whether those targets were binding or indicative), the regional tier of the Development Plan system nevertheless placed an onus on local authorities to plan to accommodate a quota of renewable energy development in their area.

The Development Plan remains central to how renewable energy proposals are to be judged at a planning application stage. National planning policy in England (the NPPF) calls for local authorities to “consider” identifying suitable areas for renewable and low carbon energy.

Where plans identify suitable areas, they should make clear what criteria have determined their selection, including what size of development is suitable. The NPPF explains that the criteria used in identifying those sites are also to be applied to developments proposed outside of those areas.

Planning guidance for developing different forms of large scale renewable energy projects varies. For onshore wind developments, recent Ministerial Statements made clear the intentions to push the decision-making back to the local level, emphasising the requirement for Local or Neighbourhood Plans to identify suitable areas for wind energy development and requiring that such developments should only get the go-ahead if the planning impacts identified by the affected community are fully addressed. For ground mounted solar arrays, changes to the Planning Practice Guidance emphasises the requirement to utilise previously developed land and lower value agricultural land.

“” Local and neighbourhood plans are the key to delivering development that has the backing of local communities. When drawing up a Local Plan, local planning authorities should first consider what the local potential is for renewable and low carbon energy generation....Whilst local authorities should design their policies to maximise renewable and low carbon energy development, there is no quota which the Local Plan has to deliver.

Planning Practice Guidance, Department for Communities and Local Government

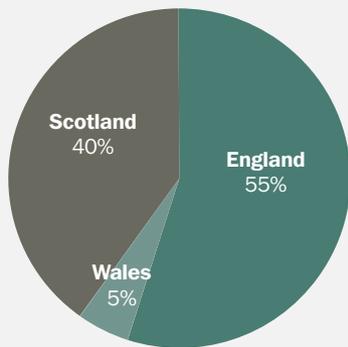
Renewable Energy Generation – The Overall Mix

Whilst the contribution of off-shore energy generation has grown in recent years and is set to continue to increase, data⁶ published by the Department of Energy and Climate Change (DECC) illustrates that, across the main range of onshore and offshore renewable energy types in the UK, over 75% of renewable energy is generated onshore.

The Development Plan system has a more limited role in planning for the delivery of offshore energy projects and, therefore, our research has focussed upon onshore energy generation where the onus is on Development Plans to identify suitable areas for development. Just over half of the UK's onshore renewable energy generated is within England, closely followed by Scotland (40%) with a 5% contribution from Wales.

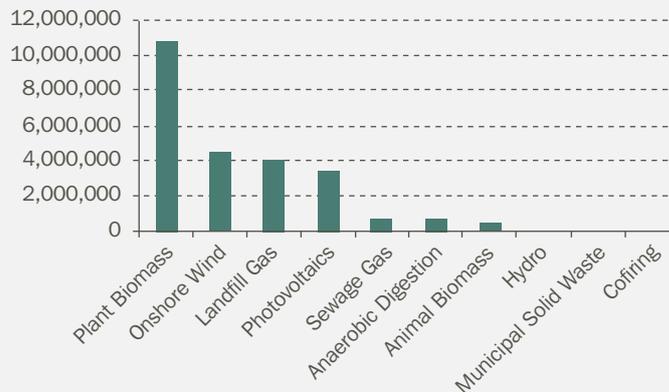
Figure 2 shows the contribution that each onshore technology makes to the overall onshore renewable energy output of England. Biomass makes the greatest contribution to the renewable energy mix, accounting for 43% of the overall renewable energy output in England. Onshore wind, landfill gas and solar combined together generate a similar level as biomass.

Figure 1: Onshore energy generation by country



Source: DECC (2014)

Figure 2: Onshore energy generation in England (MWh)



Source: DECC (2014), NLP analysis

6 Department of Energy and Climate Change (2014)

Selecting the Authority Areas

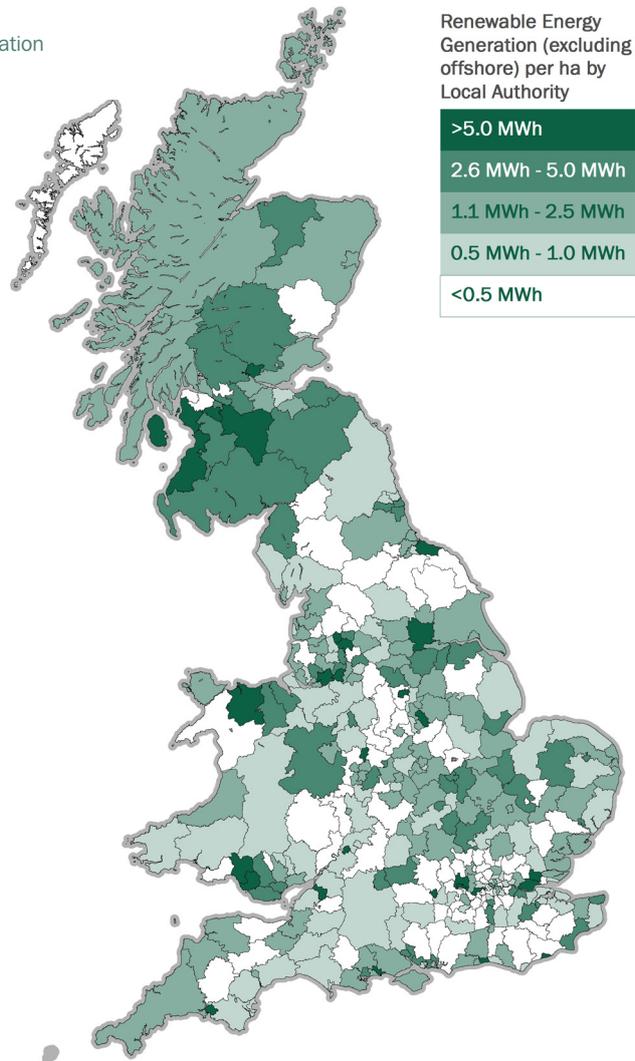
To understand the role of Development Plans in planning positively for renewable energy developments, a range of local authorities have been selected.

Rather than identify local authorities based simply upon their renewable energy output, authority areas have been ranked by their total generation of renewable energy (MWh) relative to both geographical size and the availability of land which is free from certain policy designations that indicate development should be restricted.

Renewable energy generation

Figure 3 illustrates how local authorities compare across England, Scotland and Wales in terms of the amount of renewable energy generated per hectare of total available land (MWh per hectare).

Figure 3: Renewable Energy Generation per ha by Local Authority



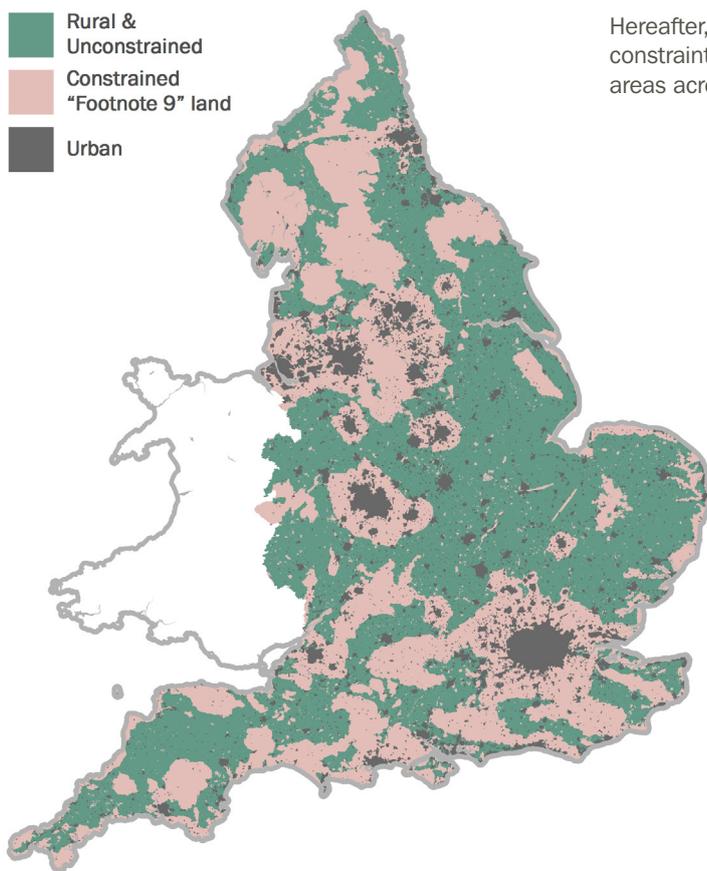
Source: Renewable energy generation (MWh) at Local Authority Level, Department of Energy and Climate Change, 2014

Applying a “constraints layer”

Having established the amount of renewable energy generated at local authority level, relative to their size, our analysis then takes into account protected land.

England’s NPPF reiterates that developments which accord with the statutory Development Plan should be approved without delay. Where the Development Plan is silent (i.e. does not identify land / locations suitable for renewable energy development), then the decision-maker must weigh up whether the adverse impacts would significantly and demonstrably outweigh the benefits unless specific policies, including those protecting landscapes, indicate that development should be restricted.

Figure 4: Policy Constrained Land within England.



Source: NLP analysis, Natural England, Historic England, Experian Limited, 2016

Those specific protected areas are set out at Footnote 9 of the NPPF and include:

1. Green Belt
2. National Parks
3. Areas of Outstanding Natural Beauty
4. Sites of Special Scientific Interest
5. World Heritage Sites
6. Scheduled Ancient Monuments
7. Registered Parks and Gardens
8. Sites protected under the Birds and Habitats Directives
9. Local Nature Reserves
10. National Nature Reserves
11. Special Protection Areas
12. RAMSAR sites
13. Special Areas of Conservation

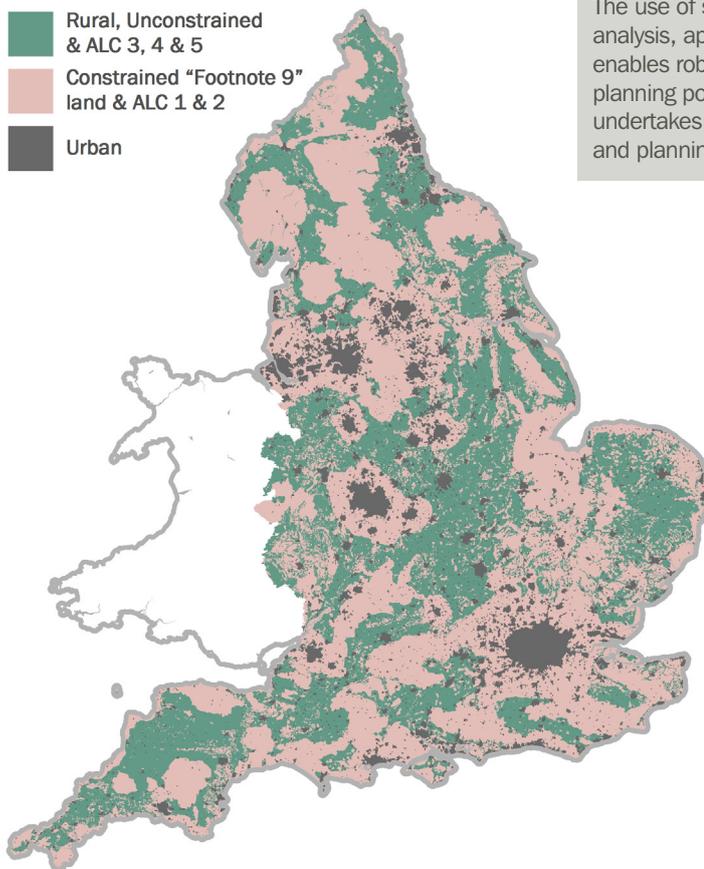
Hereafter, we refer to the above as “Footnote 9 constraints” and the geographical extent of these areas across England is shown in Figure 4.

For certain renewable energy technologies such as ground mounted solar arrays, a material consideration in the determination of planning applications is whether they would involve the use of best and most versatile (BMV) agricultural land, based upon Natural England's Agricultural Land Classification (ALC). The ALC grades agricultural land, with Grade 1 being "excellent" quality and Grade 5 being "very poor" quality. Grade 3 land is classified as "good to moderate" quality and is split into two sub-categories Grade 3a and 3b.

BMV is land classified as Grade 1 ("excellent"), Grade 2 ("very good") and Grade 3a ("good") and is, therefore, afforded the greatest protection. ALC mapping data does not break down into the Grade 3 sub-categories. By way of illustration, however, the extent of unconstrained rural land that is not Grade 1 or 2 BMV is shown on Figure 5.

Around 11% of the total land across England is classified as 'urban'. In respect of rural land, almost 60% is free from Footnote 9 constraints including Green Belt, amounting to some 6.7 million hectares. This area reduces to just over 40% (4.8 million hectares) of the total rural land when Grade 1 and 2 BMV agricultural land is included.

Figure 5: Policy Constrained Land in England and Agricultural Land Classification



NLP combines GIS mapping techniques with an in-depth understanding of the planning application determination process in order to identify constraints and opportunities for renewable energy developments. The use of such data together with more localised analysis, applied within rigorous methodologies, enables robust conclusions to be drawn as to the planning potential of land for renewable energy. NLP undertakes these assessments at both site-finding and planning application stages.

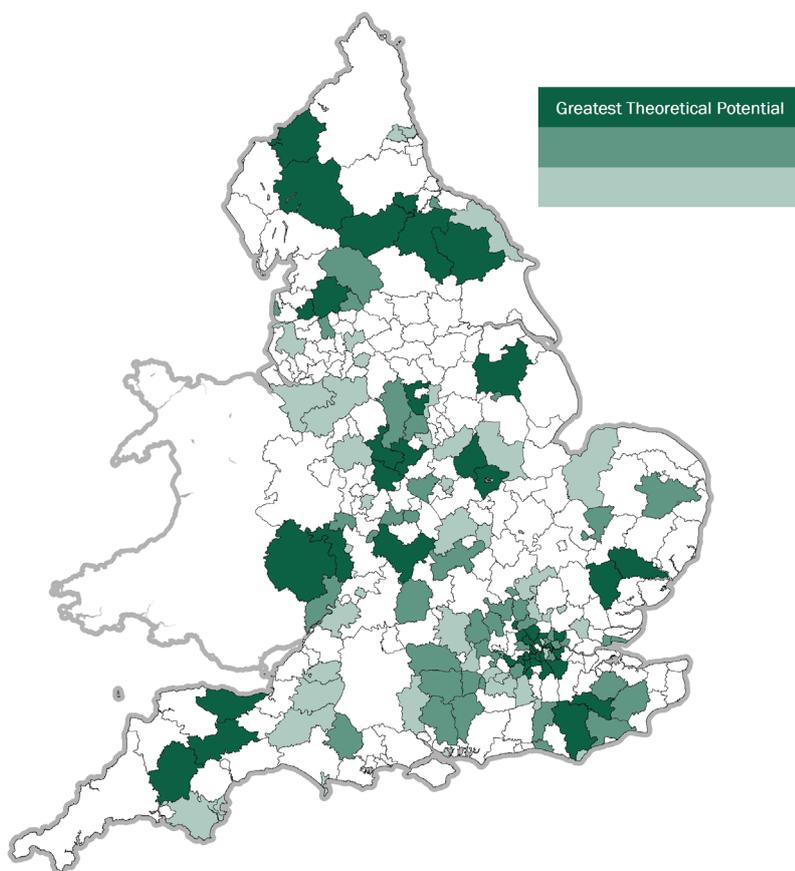
Source: NLP analysis, Natural England, Historic England, Experian Limited, 2016

All local authorities across England have then been ranked by renewable energy generation per hectare of unconstrained land (e.g. urban and unconstrained rural land combined). Figure 6 maps this data and identifies those authorities where renewable energy generation is low, relative to the amount of urban land and unconstrained rural land.

From this ranking of the English authorities, a sample of local authorities' Development Plans have been analysed, comprising 10 authorities with the greatest theoretical potential (green) along with the 10 authorities generating the highest levels of renewable energy relative to the amount of unconstrained land within their area.

A broad assumption has been made that those authority areas (shown in green) generating relatively limited amounts of renewable energy and which also have the greatest amount of urban land and unconstrained rural land (relative to overall size) represent areas with greatest theoretical potential to increase their quota of renewable energy generation.

Figure 6: Unconstrained Land Relative to Renewable Energy Generation.



Source: NLP Analysis

Development Plan Analysis

For each of the selected local authority areas, research has been carried out to establish the extent to which statutory Development Plans, Neighbourhood Development Plans and non-statutory planning documents identify areas considered suitable for renewable energy developments.

Documents have been categorised into four types.

In addition, and partly in response to Government's requirements for wind-farm proposals to demonstrate that they have the backing of local communities, it has been noted where any statutory Plans or non-statutory supplementary documents provide guidance to the use of community contribution payments.

	No document in preparation or adopted or no policy supporting large-scale renewable energy development
	Guidance / policy provided though limited to general presumption in favour of renewable energy developments if benefits can be demonstrated to outweigh harm
	Guidance / policy provided which sets out broad principles for favouring certain types of locations over others (ie. previously developed land ahead of greenfield land) or identifies general geographical constraints
	Specific areas of land allocated or search areas identified as suitable for certain types of renewable energy developments

Table 1: Local Authority Areas with the highest generation levels (relative to amount of unconstrained land)

Local Authority Area	Region	Total Urban and Unconstrained Rural Area (ha)	Statutory Development Plan	Supplementary Documents / Studies	NDPs	Community Contribution Policy / Guidance
Selby	Yorkshire and The Humber	17,658				
Thurrock	East of England	3,996				
Boston	East Midlands	2,081				
Fenland	East of England	5,249				
South Bucks	South East	2,664				
Hyndburn	North West	3,567				
Shepway	South East	4,764				
Cannock Chase	West Midlands	3,225				
Warrington	North West	7,452				
South Holland	East Midlands	3,182				

Source: Local Authority websites, April 2014

Table 2: Local Authority Areas with greatest theoretical potential (i.e. relatively low generation and relatively high amounts of unconstrained land)

Local Authority Area	Region	Total Urban and Unconstrained Rural Area (ha)	Statutory Development Plan	Supplementary Documents / Studies	NDPs	Community Contribution Policy / Guidance
Richmondshire	Yorkshire and the Humber	47,798				Voluntary
Eden	North West	95,048				
Malvern Hills	West Midlands	38,825				
Melton	East Midlands	41,352				
Ryedale	Yorkshire and the Humber	64,586				
Ribble Valley	North West	18,244				
West Lindsey	East Midlands	78,077				
West Somerset	South West	16,945				
Babergh	East of England	29,085				
Lichfield	West Midlands	15,187				

Source: Local Authority websites, April 2014

Potential Energy

Of these two sets of authority areas, those with the greatest theoretical potential to increase their quota of renewable energy generation (in Table 2) appear to be providing more direction in their Development Plans as to where renewable energy would be suitable. This is apparent both from the plans adopted and also the intentions being expressed by some authorities to identify suitable sites in future Development Plan documents.

Perhaps recognising their potential to increase renewable energy generation, there are some encouraging signs amongst authorities in Table 2:

1. Four of the authorities identify specific geographical areas within their Core Strategies where proposals for renewable energy developments are to be directed to. Four other authorities have non-statutory documents / studies that seek to identify broad areas of opportunity for renewable energy developments.
2. Lichfield has identified areas of land as 'wind energy opportunities' on its Core Strategy policies map. The Council is in the early stages of preparing a Site Allocations DPD and looking to identify areas suitable for energy development.
3. Babergh has a supportive Neighbourhood Development Plan (albeit without going as far as identifying suitable areas).
4. Richmondshire is embracing the use of community benefits contributions from renewable energy developments.

It should be noted that six of the authorities in Table 2 are at the early stages of preparing a new Local Plan or a Site Allocations document. Opportunities, therefore, exist to seek to influence the content of Development Plans here and elsewhere in England so that they identify areas to be considered suitable for renewable energy developments.

Are Development Plans fulfilling expectations?

Most of the sampled authorities are producing Development Plan or non-statutory documents that offer support for renewable energy developments subject to demonstrating that harm can be mitigated and for benefits to be shown to outweigh the residual harm.

Only 6 of the 20 sampled authorities, however, appear to reflect Government's expectations by identifying areas suitable for renewable energy generation.

Despite the emphasis being placed on neighbourhood planning to identify locations suitable for renewable energy development (particularly wind energy), there are no Neighbourhood Development Plans adopted or in preparation within the sampled authority areas which go as far as identifying such areas. Most are either silent on renewable energy or state that only small scale, onsite renewable energy measures would be welcomed as part of new development. Furthermore, only one authority is referring to the use of community contribution payments from renewable energy developers.

NLP seeks to influence the content of Development Plans to ensure they reflect national policy objectives and plan positively to meet identified needs. Detailed reviews of policy (emerging and adopted) are undertaken to inform decisions in site search exercises and to shape planning strategies at application stage.



Scotland; Community Contributions as Part of the Planning Process

Of the sampled authorities in England, only one sets out in its Development Plan the use of developer contributions (by way of payments) as a means of assisting in garnering community support for renewable energy developments.

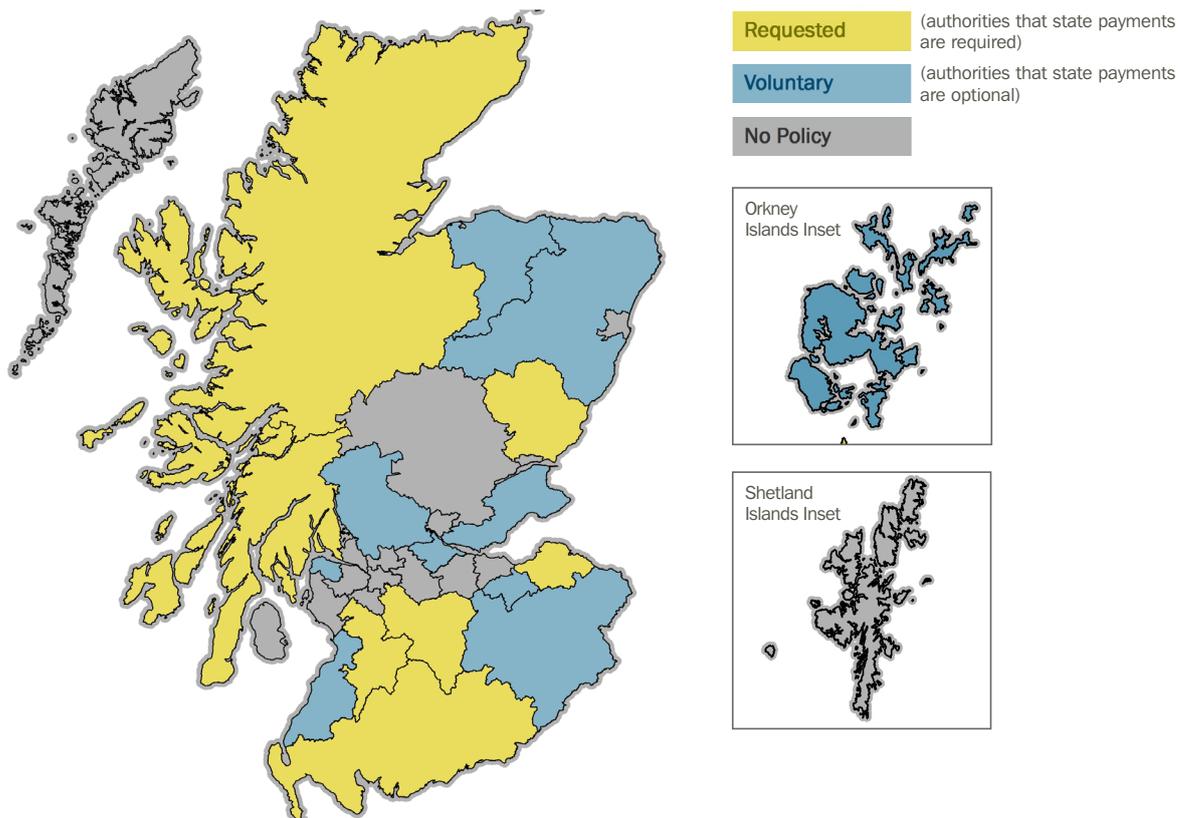
Changes in 2015 to Planning Practice Guidance in England established a requirement to demonstrate community backing for onshore wind projects. In this regard, could Development Plans in England be doing more and take a similar approach as Scotland in respect of encouraging community payments?

Scottish Government has adopted a set of principles designed to maximise community benefit from onshore renewable energy developments. The national community benefits package rate is equivalent to at least £5,000 per MW per year (index linked to inflation for the operational lifetime of the development) and is intended to provide tangible benefits to communities located near to renewable energy developments so as to assist in obtaining community backing.

NLP has, therefore, carried out research to establish just how extensive community contribution payments feature within Development Plans in Scotland.

Figure 7 and 8 shows those authorities that seek tariff-style payments and those authorities with no such policy or guidance.

Figure 7: Community Contribution Payment Policy / Guidance by Authority Area



Source: Local Authority Websites, April 2016

17 of the 32 local authorities in Scotland either reference the Government's community benefits package or actively encourage (through their published policy or guidance) renewable energy developers to make financial contributions to local communities.

11 of these 17 local authorities suggest the £5,000 (per MW installed, per year) tariff recommended by the Scottish Government. 10 of the 17 tariffs apply solely to wind power and the remaining seven apply to all types of renewable energy proposals.

The approach taken by authorities varies in respect of whether the tariff is an aspiration (voluntary) or expected. For example, Inverclyde Council stress in its supplementary guidance that contributions are voluntary and not a material planning consideration. East Ayrshire, on the other hand, has identified a £5,000 (per MW installed, per annum) tariff as a minimum contribution and is seeking to enshrine this requirement in policy as part of the Development Plan.

Conclusions

Overall, based upon the sample of local authorities, it appears that the statutory Development Plan and neighbourhood planning in England is not keeping pace with Government's aspirations by identifying land that is considered suitable for renewable energy developments.

Of the Development Plans sampled, most tend to offer general support for renewable energy development in their areas, often within the Core Strategy. Site Allocations documents, however, are not being used to allocate land suitable for renewable energy developments.

Despite the emphasis placed on the use of Neighbourhood Development Plans (and Local Plans) for identifying locations suitable for renewable energy development (particularly wind energy), none of the sampled areas have Neighbourhood Development Plans which go as far as identifying specific areas where energy development is to be directed to.

Unlike England, Scotland's Development Plan system has embraced the use of community contribution payments to assist in garnering support of local communities affected by renewable energy schemes. By incorporating such measures into Development Plans in England, greater certainty could be provided as to how the backing of local communities will feature in the decision-making process for renewable energy proposals.

There are still opportunities to do more

The preparation of Development Plans and Neighbourhood Plans is ongoing and there are still opportunities to seek to influence their content and conclusions in respect of the need for renewable energy development and where it should most appropriately be located.

What next?

In September 2016, the Department of Energy and Climate Change will be publishing updated data on renewable energy generation at local authority level. NLP will be updating its mapped analysis of generation relative to land availability and land constraints. NLP is also monitoring the preparation of Development Plans and how they are planning positively for renewable energy development.

About NLP

Nathaniel Lichfield & Partners (NLP) is an independent planning, economics, and urban design consultancy, with eight offices across the UK.

We are one of the largest independent planning consultancies in the UK and offer the broadest range of skills of any specialist planning firm. This includes services in environmental, heritage and visual impact assessment, sustainability analysis, site finding analysis / constraint mapping, alternative site assessment, economic evaluation, community consultation, urban design, graphics and sunlight and daylight assessment, as well as a full range of planning skills.

NLP has successfully applied many of the services set out above in achieving planning permission for a range of renewable energy developments, including in Green Belt land and sensitive landscapes.

Our clients include developers, landowners and operators in the energy, waste, industry, housing and commercial sectors.

We prepare accessible and clear reports, underpinned by robust analysis and stakeholder engagement, and provide expert witness evidence to public inquiries and examinations

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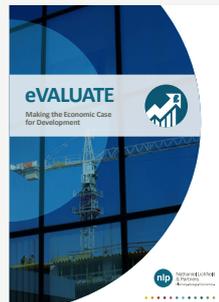
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