

Opinion

Contaminated land, green energy, and the energy crisis: should contaminated land sites be targeted and used to produce renewable energy in the United Kingdom?

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Abstract

This opinion asks the question whether contaminated land sites ‘can’ and ‘should’ be used to provide renewable energy in the United Kingdom (UK)? This question in turn raises many other questions and scenarios which have yet to be considered, explored and resolved, by relevant stakeholders regarding the use of such sites. Detailed assessments need to be undertaken to understand what the impact of using these sites would have on the environment, local communities, and whether the renewable energy obtained would make a significant difference to reducing the UK’s reliance on fossil fuels. It may be that due to the long timescales involved, as a result of the need to monitor and evaluate such sites over time (in contrast to the speed of change that is actually required in practice to deal with the current energy crisis), that this proposal does not provide a ‘quick fix’ but is nonetheless something that the UK government should consider more fully now, as it could help with mitigating the ‘energy and environmental crisis’ over the longer term. In other parts of the world such as the USA, contaminated land is actively being re-used to provide renewable energy.

Keywords

Contaminated land, land use, site classification, green energy, energy crisis, renewable energy, solar power, wind power, electricity, environmental crisis, net zero, carbon reduction, monitoring, United Kingdom, Environment Agency, United States of America, Environmental Protection Agency

Introduction

This opinion is written at a grave time for Europe. Shakespeare wrote that, '[w]hen sorrows come, they come not as single spies, but as battalions.'¹ This is certainly an accurate way to describe the last few years. The United Kingdom's decision to leave the European Union (EU), coupled with the COVID² pandemic, and Russia's decision to start a war with Ukraine on the 24th February 2022, has had a dramatic impact on the cost of food and energy across the globe which in turn has severely impacted peoples' lives and livelihoods. People and businesses are finding it difficult to cope.³ The situation is complex. Europe has been heavily dependent on Russian gas for some time now as a result of its policy to wean itself off coal in a bid to meet its climate change objectives.⁴ However, now, because of the war in Ukraine, Europe has changed track and now wants to reverse its reliance on Russian gas as quickly as possible. Other forms of energy provision are rapidly being explored. Despite the fact that the UK is less reliant on Russian gas supply than some European countries, it has by no means been less affected;⁵ UK household electricity prices had as at September 2022 hit the highest in Europe.⁶ In a bid to reduce the cost of living crisis, Prime Minister Rishi Sunak's government has set itself a goal to try and reduce inflation in half by the end of this year.⁷ However, the higher costs of energy and food may continue despite this, due to the situation in Ukraine.

¹ W. Shakespeare, *Hamlet*, Act IV, Scene V, 1st edn (Heron Books: London, 1970) 551.

² 'COVID-19' is a strain of coronavirus. 'CO' stands for 'corona', 'VI' for 'virus', 'D' for 'disease' and '19' for the year 2019 in which it was first discovered.

³ T. Wilson and P. Stafford, 'Why are Europe's power producers running out of cash?' *Financial Times* (London, 6 September 2022) available at <<https://www.ft.com/content/3a188669-7eeb-4154-91a8-f808ed8ced71>> (accessed 21st February 2023).

⁴ *Ibid.*

⁵ Above n.3

⁶ Above n.3

⁷ D. Bond (2023) 'Rishi Sunak pledges to slash inflation in half this year as PM outlines vision in major speech' *Evening Standard*, 4 January 2023 available at <https://www.standard.co.uk/news/politics/rishi-sunak-speech-economy-inflation-promises-politics-b1050771.html> (accessed 21st February 2023).

Benefits of using contaminated land to produce renewable energy

Set against the above background, this opinion therefore considers how can greater energy security be obtained in the UK over the longer-term. It is suggested here that the UK's significant tracts of contaminated land should if possible be better utilised to help build a more sustainable energy infrastructure. It is argued that the UK government should explore the use of contaminated land sites to provide renewable energy (i.e. solar, wind, biomass, geothermal and cooling systems),⁸ and that this should be part of its long-term energy policy mix. This approach is necessary, because for example, from the process of identifying a site⁹ to energy generation, a wind farm can take several years to come into operation. It is suggested here that this approach is necessary for the following reasons: first, it takes time for contaminated land to be identified and for it (if required) to be remediated; second, the infrastructure for sustainable energy could (depending on the size of the site, and the type of energy being proposed) increase, third, it could reduce pressure on greenbelt and agricultural land;¹⁰ fourth, more sustainable energy would be produced, fifth, it is likely to be an efficient and effective use of such land, sixth, feelings expressed by local people of 'NIMBYism' (not in my backyard) may be less prevalent, seventh the energy produced can be provided for local and national use, eighth, it may assist with avoiding additional environmental degradation and finally, the proposed use is likely to help the government in reaching its Paris Agreement¹¹ targets.¹² Other reasons, which have been given based on experience gained in the United States of America (USA) as a result of adopting this approach are mentioned below.

⁸ Any wind or solar resource potential on a site for example may range from poor to superb. Clearly this would need to be assessed as part of the process by renewable energy developers.

⁹ The process of identifying a site can be challenging because a site deemed to be contaminated may over time become productive.

¹⁰ Currently in England solar energy projects are in the process of being located on agricultural land in many different areas across the country. Some farmers and local communities oppose this approach saying that the installation of solar panels is not the best way to use agricultural land as it should be used for food production. They also argue that it has an impact on the environment and visual amenity. See B. Ellery 'Get off our land! Farmers turfed out for solar panels' *The Times*, 4th February 2023. Solar technologies need 4 to 5 acres of land for every megawatt installed. In general, a large area of land is needed for them to be installed, which is why rural areas are targeted, however, a small amount of land such as for example 2 acres can still be used for generating solar power.

¹¹ Paris Agreement to the United Nations Framework Convention on Climate Change, Dec. 12, 2015, UNTS No. 54113 available at <https://treaties.un.org/doc/Publication/UNTS/No%20Volume/54113/Part/I-54113-0800000280458f37.pdf> (accessed 21st February 2023).

¹² HM Government, *Net Zero Strategy: Build Back Greener* (BEIS: London, 2021) available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033990/net-zero-strategy-beis.pdf (accessed 21st February 2023).

What is contaminated land?

A key question to ask therefore, is what is deemed to be “contaminated land” in the UK and how much of it could be potentially used to produce renewable energy? To clarify, “contaminated land” is different from “brownfield land”. The latter is broader and refers to land that has had been previously used for (e.g.) industry.¹³ Additionally, “land affected by contamination” and “land contamination” are broader descriptors than “contaminated land”.¹⁴ Notwithstanding this, it is suggested here that all of these land types should be utilised if after rigorous assessment and the required remediation they were deemed appropriate to do so by the relevant local authorities. Contaminated land *per se* refers to land that is affected by “contaminating substances”¹⁵ and is legally defined by the Environmental Protection Act (EPA) 1990.¹⁶ The contaminated land regime is designed to identify and remediate contaminated land. Such land must be identified by enforcing authorities (local authorities)¹⁷ and remediated by responsible persons (Class A persons).¹⁸ Controversially, where responsible persons cannot be identified, liability transfers to the current “owner”/ “occupier” (Class B persons) of the site.¹⁹ The legal definition of “contaminated land” describes the situation where land is causing or could cause one or more of the following: i) significant harm to people, property or protected species; (ii) significant pollution of surface waters (for example lakes and rivers); or (iii) harm to people as a result of radioactivity.²⁰ Land can also be determined as a

¹³ Cambridge Dictionary (no date) available at <<https://dictionary.cambridge.org/dictionary/english/brownfield>> (accessed 21st February 2023).

¹⁴ HM Government, Environmental Protection Act 1990: Part 2A: Contaminated Land Statutory Guidance (DEFRA: London, 2012), see p.3 available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/223705/pb13735cont-land-guidance.pdf (accessed 21st February 2023).

¹⁵ *Ibid.* at p.4.

¹⁶ Environmental Protection Act (EPA) 1990, Part II is available at <https://www.legislation.gov.uk/ukpga/1990/43/part/II> (accessed 21st February 2023).

¹⁷ Above, n.14 at para 1.6.

¹⁸ Above, n.14 at para 7.3.

¹⁹ *Ibid.* In contrast in the USA, see A Garel-Frantzen and A. Antonioli ‘Three Strategies to Develop Renewable Energy Projects on Potentially Contaminated Lands’ (2019) Renewable Energy World available at <https://www.renewableenergyworld.com/wind-power/three-strategies-for-building-solar-and-wind-energy-systems-on-potentially-contaminated-lands/#gref> (accessed 21st February 2023); United States Environmental Protection Agency (US EPA) ‘Liability Reference Guide for Siting Renewable Energy on Contaminated Properties’ (2014) available at <https://www.epa.gov/sites/default/files/2014-07/documents/liability-renewable-energy-contamprop-2014.pdf> (accessed 21st February 2023); ‘Fact Sheet: Addressing Renewable Energy Development at Contaminated Properties in Massachusetts- Managing Chapter 21E Liability’ Massachusetts “Eligible Persons,” Chapter 21E, Sections 2 and 5C’, p.3 available at https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=&ved=2ahUKewiuvrC3np_9AhXaiFwKHfIRDEYQFnoECBcQAQ&url=https%3A%2F%2Fwww.mass.gov%2Fdoc%2Faddressing-renewable-energy-development-at-contaminated-properties-in-massachusetts-managing-0%2Fdownload&usg=AOvVaw0n7gRoSzRQOWi6ehKKv_0O (accessed 21st February 2023).

²⁰ The definition is set out in s.78 A (2) of EPA (1990); see also above n.14, at para 5.6(a)-(d).

“special site”;²¹ these are sites that are particularly harmful or owned by the Ministry of Defence.²² The statutory guidance accompanying Part IIA of EPA (1990)²³ states that land is a risk if a “contaminant linkage” is present, or is capable of being present.²⁴ The linkage is where a “substance” affects or has the potential to affect a “receptor” (e.g., a living organism or ecological system) via a “pathway”.²⁵

The rationale behind EPA (1990) is that if contaminated land is not dealt with under Part IIA of EPA (1990), the majority of it will be dealt with through the town and country planning system when the site is redeveloped or it when it is remediated voluntarily by site owners.

Due to the various factors that can affect a site, contaminated land sites are very difficult sites for local authorities to deal with,²⁶ and often appropriate solutions cannot be found meaning that land and property may be just left vacant.

The United Kingdom

There are *c.* 325,000 sites in the UK that could be classed as “potentially contaminated land”.²⁷ This figure although not conclusive, suggests that the land mass that could be remediated for

²¹ Above n.14 at para 2.1 (a).

²² *Ibid.* A review should be undertaken of contaminated land sites on Ministry of Defence land to identify which sites offer potential to provide renewable energy. Special sites are regulated by the Environment Agency.

²³ Part 11A of EPA (1990) was inserted into the Environmental Protection Act 1990 by section 57 of the Environment Act 1995. However, the regime did not come into force until the 1st April 2000 in England (enacted by The Contaminated Land (England) Regulations 2000 (SI 2000, No.227) (as amended) available at <https://www.legislation.gov.uk/ukxi/2000/227/introduction/made> (accessed 21st February 2023); this was accompanied by statutory guidance that was produced in 2000, later updated in 2012 (see above, fn. 14). In Wales the regime came into force on the 1st July 2001 (enacted by The Contaminated Land (Wales) Regulations 2001 (SI 2001, No. 2197 (W.157) as amended; available at <https://www.legislation.gov.uk/wsi/2001/2197/introduction/made> (accessed 21 February 2023) together with statutory guidance published in 2006. The latter was updated in 2012 (see ‘No. WG19243 Welsh Government Guidance Document- Contaminated Land Statutory Guidance – 2012) available at <https://www.gov.wales/sites/default/files/publications/2019-08/contaminated-land-statutory-guidance-2012.pdf> (accessed 21 February 2023). In Scotland the regime came into force on the 14 July 2000 enacted by The Contaminated Land (Scotland) Regulations 2000 (SSI 2000, No. 178), see <https://www.legislation.gov.uk/ssi/2000/178/introduction/made> (accessed 21st February 2023) (as amended); it was accompanied by Scotland’s statutory guidance which was issued in 2000, later replaced in 2006, see further ‘Environmental Protection Act 1990 - Part 11A Contaminated Land: statutory guidance edition 2’ available at <https://www.gov.scot/publications/environmental-protection-act-1990-part-11a-contaminated-land-statutory-guidance/> (accessed 21st February 2023). To date, Northern Ireland has not devised a contaminated land regime. Its regime for identifying and remediating contaminated land however, is set out in The Waste and Contaminated Land (Northern Ireland) Order 1997 (SI 1997, No. 2778 (N.I.19)); this came into force in March 1998. See further <https://www.legislation.gov.uk/nisi/1997/2778/introduction/made> (accessed 21 February 2023).

²⁴ Above n.14 at paras 3.8-3.9.

²⁵ *Ibid.*

²⁶ It is not easy, to ascertain the history of a site.

²⁷ ‘Contaminated land’ (Reigate & Banstead BC, no date) available at https://www.reigate-banstead.gov.uk/info/20335/contaminated_land/434/contaminated_land (accessed 21st February 2023). See further O. Tryboi et al (2021) CERESiS: Contaminated land Remediation through Energy crops for Soil

sustainable energy sites is significant. However, in the UK the idea of using contaminated land to provide renewable energy is relatively new. This is not surprising given the fact that there is no specific policy on ‘using contaminated land to deliver renewable energy benefits’ for local authorities to refer to when they carry out their contaminated land survey and/or determine planning applications. Despite this, in 2021 Leeds City Council granted planning permission for a 50 hectare solar farm on a contaminated site. When completed the site will generate enough energy to run 12,000 homes. The Council has since stated that it wants to see the installation of more solar panels on sites across the city but noted that it had a limited amount of publicly owned land that could be used for this purpose, and at the same time accepted that it could not dictate to private landowners to adopt this approach, even though they were keen for the idea to be taken up.²⁸ This example is however, rare.²⁹

In order to improve this situation, it is suggested that an enormous amount of detailed research first needs to be undertaken by government, local authorities and private industry to identify which sites would be suitable for delivering renewable energy.³⁰ Renewable energy developers, lenders, and insurers will have to properly assess the environmental and financial risks involved in delivering different types of renewable energy (i.e. wind or solar) on a site before, during and after construction and in relation to the operational phase of a building on a site.³¹ As part of this process it may be determined that a site may require little, none or a substantial amount of remediation before it can be reused.³²

improvement to liquid biofuel Strategies D1.1: Mapping and Classification of Contaminated Land H2020-LC-SC3-2018-2019-2020 Contract No:101006717 July 2021 pp.33- 39 available at <https://cordis.europa.eu/project/id/101006717/results> (accessed 21st February 2023). The report sets out additional statistical information. It states that in Scotland it is estimated there are 67,000 sites (82,034 hectares) that are potentially contaminated (see further fn. 30 Scottish Environmental Protection Agency ‘Dealing with land contamination in Scotland. A review of progress 2000-2008’ available at <https://www.sepa.org.uk/media/28314/dealing-with-land-contamination-in-scotland.pdf> accessed 21st February 2023). In Wales, the reports says that by 2013 local authorities had identified 10,300 contaminated land sites. Whilst in Northern Ireland, it says that the Northern Ireland Environment Agency (NIEA) had identified 14,000 potentially contaminated land sites based on their previous historical use. In 2021 CERESiS estimated that there were 2.8 million potentially contaminated sites across the European Union (EU).

²⁸ D. Spereall (2022) ‘Leeds Council could build solar energy farms on contaminated land across the city’ (25 October 2022) available at <https://www.yorkshireeveningpost.co.uk/news/politics/council/leeds-council-could-build-solar-energy-farms-on-contaminated-land-across-the-city-3892736t> (accessed 21st February 2023).

²⁹ There is no statistical data on how many contaminated land sites have been used to provide renewable energy.

³⁰ The Environment Agency’s national report on the state of contaminated land may assist with this. The most recent one is called ‘Dealing with Contaminated Land in England: a review of progress from April 2002 to December 2013 with Part 2A of the Environmental Protection Act 1990’ (2016) available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/513158/State_of_contaminated_land_report.pdf (accessed 21st February 2023).

³¹ See P. Reed, *Construction All Risks Insurance*, 3rd edn (Sweet & Maxwell: London, 2021).

³² The Environment Agency does provide advice to local authorities on how contaminated land can be remediated. See further ‘Collection Land contamination: technical guidance’ available at

Some of the questions that the research will need to consider are: why has the government not explored this idea before? how will appropriate sites be found,³³ what methodology will be used?, what type of renewable energy could be installed on a site?, where should the installation be located on a contaminated site?, what factors must be taken into consideration?, should government provide tax incentives for private owners/developers to turn this idea into reality?, who should bear the costs for remediation and development?, should public-private partnerships be promoted?, are there case study examples that can be promoted?, will government, industry and local authorities be able to work together to implement the idea? As part of this research, it would be helpful if a handbook or different types of guidance were produced, that dealt with different situations and construction activities.

However, without a policy encouraging the use of contaminated land to deliver renewable energy benefits,³⁴ coupled with government actively supporting this idea and further detailed research being undertaken in this area, the UK will continue to fall behind the USA which has already pioneered this approach and reused many contaminated sites to produce renewable energy benefits for local communities and the State.

The United States of America

In the USA there are many proposed and operating solar and wind projects on contaminated land.³⁵ In 2008 the United States Environmental Protection Agency (US EPA) launched its initiative ‘Re-Powering America’s Land’ to actively encourage ‘renewable energy development’ on existing and previously contaminated, landfill and mining sites provided that the use proposed met the local community’s vision for a site.³⁶ The US EPA has estimated that there are 480,000 contaminated land sites in the USA, which amounts to 15 million acres, or

<https://www.gov.uk/government/collections/land-contamination-technical-guidance> (accessed 21st February 2023).

³³ The contaminated land register kept by each local authority may be a good starting point for identifying potential sites that could be used to produce renewable energy.

³⁴ At present, the National Planning Policy Framework (NPPF) advises that contaminated land sites should be remediated and re-used for suitable uses, and that after this has been done that it should be determined as not being contaminated land under Part II of EPA (1990). It does not mention anywhere that contaminated land could be reused to provide renewable energy benefits. See Ministry of Housing Communities & Local Government ‘National Planning Policy Framework’ (London: 2021) para.183 (b) available at https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf (accessed 21st February 2023).

³⁵ See Massachusetts Department of Environmental Protection, ‘Map of Solar and Wind Projects at Massachusetts Contaminated Land as of 07/11/2017’ at <https://www.mass.gov/doc/solar-and-wind-projects-on-contaminated-land-map/download> (accessed 21st February 2023); US EPA (2022) ‘What are the Benefits of these Projects?’ available at <https://www.epa.gov/re-powering/what-re-powering#benefits> (accessed 21st February 2023).

³⁶ US EPA (2022) ‘What is RE-Powering?’ available at <https://www.epa.gov/re-powering/what-re-powering#benefits> (accessed 21st February 2023).

about 0.5% of the country's total land area.³⁷ There are many sites that are available therefore that can be used to turn a liability into an asset for the community. Since its inception up until 2016 1124.3 MW of renewable energy was being produced from energy installations on 179 contaminated land sites.³⁸ The advantages of reusing contaminated land sites, landfill sites and mineral sites to produce renewable energy include in addition to the ones above the following; there is open space, there a site-specific attributes which can actually shorten the development timescale and the costs involved in transforming the site (e.g. the site may already have existing infrastructure that can be used, such as roads, power lines), open space can be protected, vacant land and derelict property is transformed and in doing so reduces blight in the area; the value of the property that surrounds the site improves, jobs are created; whilst the renewable energy produced is beneficial for the environment. From an economic perspective there can be (i) financial savings in the cost of electricity for the local community, (ii) the local authority or owner of the site may gain additional money from leasing out the land and (iii) the local authority and/or the state may obtain an increase in tax revenues as a result of the renewable energy development located on the site.³⁹ The types of developments that have taken place include solar photovoltaic (PV)⁴⁰ on a landfill site, solar and wind installation on a chemical and explosives manufacturing site, wind installation on a former steel production site, geothermal heating and cooling system on a contaminated radiator site, to name but a few.⁴¹

Using contaminated land to deliver renewable energy benefits in the UK

So, bearing in mind the above, a key question to ask is why is contaminated land in the UK likely to be a possible good option for sustainable energy sites? In short, because the law does not adopt an approach of *total remediation*. So long as there is no linkage or potential for one, no further remedial action is necessarily required. The statutory guidance states that:

³⁷ E. O'Carroll 'EPA proposes using contaminated land for renewable energy' October 1 2008 The Christian Science Monitor available at <https://www.csmonitor.com/Environment/Bright-Green/2008/1001/epa-proposes-using-contaminated-land-for-renewable-energy> (accessed 21st February 2023).

³⁸ US EPA 'RE-Powering America's Land Initiative Project Tracking Matrix' (2016), p.7 available at https://www.epa.gov/sites/default/files/2015-03/documents/tracking_matrix.pdf (accessed 21st February 2023).

³⁹ US EPA (2022) 'What are the Benefits of these Projects?' available at <https://www.epa.gov/re-powering/what-re-powering#benefits> (accessed 21st February 2023).

⁴⁰ Photovoltaic (PV) is a type of solar technology. It converts sunlight into electricity. A PV panel will ideally be located on a south facing site, which does not have any issues of shading, otherwise it will significantly reduce its output. The panel will need to be tilted at 36 degrees. On average a PV panel will last for 20 to 30 years (or longer) before it is decommissioned. Concentrating solar power (CSP) is another form of solar technology. It converts the sun's 'energy' to produce electricity and works in a different way to PV. A typical CSP plant is likely to require 5 to 10 acres of land per megawatt energy generated.

⁴¹ Above n.39.

[F]or a risk to exist there must be contaminants present in, on or under the land in a form and quantity that poses a hazard, and one or more pathways by which they might significantly harm people, the environment, or property; or significantly pollute controlled waters.⁴²

Whilst the approach has been criticised as a somewhat soft touch to remediation,⁴³ it should be noted that the regime has nevertheless encouraged scientific innovations in the form of identifying and remediating polluted land and waters.⁴⁴ The legal situation should however be also seen as providing a flexible approach that encourages redevelopment. In practice, this means that remedial works can be less invasive (and ultimately, less expensive) to undertake, even when the works are conducted *in situ*, e.g., barrier membranes can be used to remove contaminant and receptor linkages.⁴⁵ Depending on the scale of the contamination, there is the possibility of *mass transfer* and *ex situ* remediation works that could be adopted.⁴⁶ In other words any form of remediation must be site specific, and clearly all the relevant stakeholders will require the appropriate remediation is undertaken for the site and the use proposed on it.

In the UK it is accepted that remediation can be highly expensive,⁴⁷ and that direct liability can transfer to the current owner/occupier of the site, even though they may have not been responsible for contaminating the site *per se*.⁴⁸ This is clearly problematic. Furthermore, there is the inevitable problem of the town and country planning system's red tape delaying remedial works, which needs to be looked at,⁴⁹ which is bolstered by a lack of funding/financial incentives for redevelopment projects.⁵⁰ Nevertheless, it is strongly argued here that contaminated land should be better prioritised by policymakers as an alternative land use approach for sustainable energy projects. As has been shown, the law offers a flexible approach, however greater funding and drive by government to promote renewable energy on

⁴² Above n.14 at para 3.8(a)-(c) and para 3.9.

⁴³ L. A. Brown, 'The contaminated land regime and austerity' (2016) 8 (3) International Journal of Law in the Built Environment, p.218

⁴⁴ CIRIA, 'Biological methods for assessment and remediation of contaminated land: case studies' (CIRIA C575 London 2002).

⁴⁵ Proctor Group, 'Building on Contaminated Land: VOC Barrier Membranes' (proctorgroup.com, no date) available at <<https://www.proctorgroup.com/building-on-contaminated-land>> (accessed 21st February 2023).

⁴⁶ M Jääskeläinen, 'Reasons for choosing in-situ remediation instead of ex-situ and mass transfer' (envirotecmagazine.com, May 2018) available at <<https://envirotecmagazine.com/2018/05/16/reasons-for-choosing-in-situ-remediation-instead-of-ex-situ-and-mass-transfer/>> (accessed 21st February 2023).

⁴⁷ *Ibid*.

⁴⁸ Above n.14 at para 7.4.

⁴⁹ Above n.43 at 218-220. However, when a renewable energy developer applies for planning permission it may be possible for a local planning authority to secure s.106 funds to benefit the local community.

⁵⁰ Above n.43 at 220-221.

contaminated sites is needed, this it is argued, together with the identification of those sites with high potential for development, will boost 'renewable energy developers' future appetite.

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