



UNIVERSITY OF GLOUCESTERSHIRE

This is a peer-reviewed, post-print (final draft post-refereeing) version of the following published document, This is the peer reviewed version of the following article: Jones, Peter and Comfort, Daphne and Hillier, David (2015) Spotlight on solar farms. Journal of Public Affairs, 15 (1). pp. 14-21., which has been published in final form at <http://dx.doi.org/10.1002/pa.1482>. This article may be used for non-commercial purposes in accordance with Wiley Terms and Conditions for Self-Archiving. and is licensed under All Rights Reserved license:

Jones, Peter ORCID logoORCID: <https://orcid.org/0000-0002-9566-9393>, Comfort, Daphne and Hillier, David (2015) Spotlight on solar farms. Journal of Public Affairs, 15 (1). pp. 14-21. doi:10.1002/pa.1482

Official URL: <http://dx.doi.org/10.1002/pa.1482>

DOI: <http://dx.doi.org/10.1002/pa.1482>

EPrint URI: <https://eprints.glos.ac.uk/id/eprint/693>

Disclaimer

The University of Gloucestershire has obtained warranties from all depositors as to their title in the material deposited and as to their right to deposit such material.

The University of Gloucestershire makes no representation or warranties of commercial utility, title, or fitness for a particular purpose or any other warranty, express or implied in respect of any material deposited.

The University of Gloucestershire makes no representation that the use of the materials will not infringe any patent, copyright, trademark or other property or proprietary rights.

The University of Gloucestershire accepts no liability for any infringement of intellectual property rights in any material deposited but will remove such material from public view pending investigation in the event of an allegation of any such infringement.

PLEASE SCROLL DOWN FOR TEXT.

Spotlight on Solar Farms

Peter Jones, Daphne Comfort and David Hillier

'Developments in the energy sector impact directly on the global economy, the environment and everyday life in a wide variety of ways and the energy sector has important messages it needs to communicate to governments, businesses and consumers. Public relations is a valuable, engaging and cost effective platform for getting these messages across.'

Aspectus PR (2013)

Abstract

Solar energy is the most abundant of all renewable energy sources and the development pressures for solar farms have grown rapidly in the last five years within the UK. With this in mind this paper outlines the characteristics of solar farms, describes their development within the UK, examines some of the issues raised by these developments and offers a concluding discussion of the contributions that public and media relations firms can make to the development of solar farms. The paper reveals that solar farms have been developed on both agricultural land and brownfield sites and that the development pressures are greatest in the South West and South East of England. The findings reveal that proposals to develop solar farms have generated a wide range of environmental, community and economic issues and that public relations companies have an important role to play in fostering the transition from fossil fuels to renewable sources of energy.

Keywords Solar farm, Renewables, Public Relations, United Kingdom

Introduction

As countries face the need to reduce exposure to volatile fossil fuel energy prices and greenhouse gas emissions and improve the security of energy supplies so renewable energy sources are becoming increasingly important. The European Renewable Energy Council (2010) has set out 'a 100% renewable energy vision for The European Union' and has analysed 'the economic, environmental and social benefits likely to accompany such a transition.' Arguably more realistically, if less ambitiously, the UK Government is committed to meeting 15% of the nation's energy needs from renewable sources by 2020, as part of its strategy to reduce greenhouse gas emissions and reduce dependency on imported energy supplies. Looking further ahead the UK Government has suggested '*renewables will also have a crucial role to play in the UK energy mix in the decades beyond, making the most of the UK's abundant natural resources*' (Gov. UK 2013). One of the core principles within the National Planning Policy Framework (NPPF) is that '*planning should.....support the transition to a low carbon future in a changing climate*' by, inter alia, '*the development of renewable energy*' (Department for Communities and Local Government 2012). More specifically the NPPF stresses the need '*to help increase the supply of renewable and low carbon energy, local authorities should recognise the responsibility on*

all communities to contribute to energy generation from renewable and low carbon sources' (Department for Communities and Local Government 2012).

The development of energy resources has traditionally had a wide range of contested impacts on the economy, the environment and everyday life, focused for example, on nuclear power and the reprocessing of nuclear fuels, major oil spills in marine environments, the closure of coal mines and the effect on coalfield communities and more recently on the fracking of oil shales. Many of the leading public and media relations firms have been working on fossil fuel energy issues for many years and this work has often been managed in an atmosphere of intense and occasionally hostile public and media scrutiny. The mix of renewable energy resources currently includes wind, hydro-electric, tidal, biomass and solar power but a recent study of communication best practices for renewable energy suggested that *'although numerous examples of good practice in communications for renewables were observed in the process of undertaking this study, rigorous, well planned and adequately evaluated communication strategies were not the norm'* (Collings, Cottrell and Leopold 2013). In a similar vein research undertaken by the CC Group (2012) concluded that *'investing in communication activity is becoming of increasing importance to the success of renewable energy businesses.'* While the continuing development of both onshore and offshore wind farms within the UK, particularly in northern and western regions, has stirred considerable public, political and media controversy. That said solar energy is the most abundant of all the sources within this mix and PricewaterhouseCoopers (2010) has suggested that solar power *'shows increasing potential as an alternative to existing fossil fuel sources.'* With this in mind this paper outlines the characteristics of solar farms, describes their development within the UK, examines some of the issues raised by these developments and offers a concluding discussion of the contributions that public and media relations firms can make to the development of solar farms. The paper is based on information drawn from the Internet, principally solar panel development and management companies and local authorities, on personal communication with a limited number of individuals within local authorities and solar farm development companies and on field visits to solar farms in Gloucestershire and Cornwall.

Solar Farms

While there is no official definition of a solar farm it is essentially an area of land on which a large number of solar panels are deployed to generate electricity producing very little noise, having no moving parts and no harmful emissions. More specifically solar farms are large arrays of interconnected solar panels that work together to capture sunlight and convert it directly into electricity. The active elements within the solar panels are silicon solar cells which have at least two layers with a positive and negative charge. The electric field across the junction between the two layers causes electricity to flow when the semiconductor absorbs photons of light and releases electrons. The electricity so generated is cabled to one or more (depending on the size of the solar farm) inverters, electrical power converters that change direct current into alternating current, electricity. The output can be connected to both local users and the national grid. Solar energy generation is at its strongest during the day time when the demand for electricity is high and when the solar farm produces more electricity than is required locally then the surplus is fed into the national grid and when there is a shortfall extra power can be drawn from the grid.

A typical solar farm generates some 5 mega-watt peak (MWp) which would provide electricity for up to 1,200 houses with a carbon dioxide saving of 500 grams per kilo-watt hour (g/kWh). Such a solar farm would require 15 hectares of land with about 30% of the total area being covered by up to 20,000 solar panels. The individual solar panels measure 1.6 by 1.0 metres and their upward facing surfaces are made from toughened glass with an anti-reflective coating to maximize the light captured by the solar cells. The solar panels are mounted in arrays on aluminum and steel frames and inclined at an angle of 25% between 1.0 and 2.65 metres above the ground, thus providing clearance for habitats and plants to remain in situ, and they are usually laid out in rows and interspaced to facilitate access and to minimise shading. Solar farms usually have a secure perimeter fence and are often sited behind existing or new hedges planted to screen them. Maintenance is normally straightforward and relatively minimal involving performance monitoring; defects analysis, diagnosis and replacement; landscape maintenance; annual inspections; and security. The theft of solar panels has been reported as an issue, particularly on large solar farms in relatively remote areas, and a growing number of operators are installing sophisticated closed circuit surveillance systems. Solar farms are generally thought to have a lifespan of 20-25 years and in many ways they can be seen as a temporary land use and there are no legacy issues in that the entire installation can be removed relatively easily and sites can, if appropriate, be restored to their original use.

The world's first small solar farms were built in California in the early 1980's but development was slow until 2004 when changes in the financial incentives for solar power generation were introduced in Germany which led to the development of a new generation of solar power plants. Within the last decade increasingly large solar farms have been developed in a number of countries including China, United States, Mexico, Spain, Germany, Portugal, Italy, France and the UK are currently the countries with the largest solar farm capacity. The solar farm developed on a former military airfield at Neuhardenberg in Germany and opened early in 2013 is the world's largest installation and has a generating capacity of 145 MW and it provides power to some 48,000 homes. Spain also has substantial solar power generating capacity and its largest development at Olmedilla, in *Castille-La Mancha*, has a generating capacity of 50 MW, provides electricity for 40,000 homes and will displace 2 million tonnes of carbon dioxide during its 25 year life span.

Globally the geography of solar farms reflects a number of factors including operational economics, global solar energy potential and access to the national grid. The operational economics, more particularly consistently advantageous fiscal financial support and grid parity, has been particularly important in influencing the distribution of solar farms. Looking to the future the geographical pattern of solar farms may change as different regions achieve grid parity. Worldwide solar energy potential is at its lowest in high latitudes and at its highest in desert areas of Africa and Australia. That said most of the world's densely populated areas including large areas of Africa, Australia, the Middle East, the Indian subcontinent, the southern United States and Mexico, large areas in South America and much of southern and western Europe offer suitable levels of solar energy potential. Access to national electricity grids, more particularly proximity to electricity sub stations or power connectors, is important because power losses from cables increase with distance.

The Development Solar Farms in the UK

While there is no national register, and hence no definitive information on the number of solar farms in the UK per se, the use of solar power has increased rapidly, albeit from a low base level, in recent years and anecdotal and trade evidence clearly suggests that the number of solar farms is rapidly increasing. Solar Voltaic Energy (2013), for example, listed 91 major 'solar energy schemes' as having been commissioned by April 2013 with a further 56 being classed as approved or under construction and a further 32 proposed or going through the planning process. The global irradiation and solar energy potential within the UK varies from 980 kilowatt hours per metre squared in the far north of Scotland to 1240 kilowatt hours per metre squared in the south west of England and it is the south west and south east of England where the development pressure, as evidenced by the number and the scale of solar farm projects, is greatest. While some solar farms have been developed on brownfield sites, for example, on disused airfields or former landfill sites, many have been proposed and developed on agricultural land. The Wheal Jane solar farm was the first to be commissioned in Cornwall. It is on the site of a disused tin mine and the farm's 5,700 solar panels yield a generating capacity of 1.5 MW and it can provide electricity for up to 430 homes and saves over 700 tonnes of carbon dioxide emissions per annum. Somerset's first solar farm on a 4 hectare site at Sandhill Park, near Bishops Lydeard, has been providing electricity to some 600 homes since 2011. The UK's largest solar farm with a capacity of 34 MW developed at a cost of £35 million on a former military airfield at Wymeswold near Loughborough in Leicestershire became operational early in 2013.

In April 2013 solar farm developers were paying farmers up to £50,000 per annum for a 20 hectare site in the South East and South West of the UK and up to £40,000 in the Midlands and East of England but precise figures reflect annual sunlight levels and other factors including access and topography. Solar farm developers are typically looking for sites offering between 10 and 20 hectares and they will normally take on the planning cost and risks in funding projects through to commissioning. More specifically a number of development criteria can be identified in that potential solar farm sites should:

- offer between 10-20 hectares of land of low grade agricultural land though there is no upper limit on size
- ground that is flat or gently sloping and south facing
- not be overlooked from public vantage points or neighbouring houses
- offer easy access for construction and maintenance work
- be free from surrounding buildings or trees that would cast a shadow
- not prone to flooding
- be free of rights of way
- have no underground pipes crossing the land
- be in proximity to a major overhead power line
- not be in environmentally sensitive areas or areas of archaeological significance or areas of significant landscape value
- be available to lease for at least 20 years

The growth in solar farm development reflects a number of factors. On the one hand the UK Government's positive approach to renewable energy and more specifically

solar-specific Power Purchase Agreements (PPAs) and the government-mandated Renewables Obligation (RO) have been important in providing the initial impetus for solar power development. Solar farm operators sell electricity to utilities at a fixed price under the PPAs for every megawatt hour generated. The RO is the main support mechanism for renewable electricity projects in the UK and it places an obligation on UK electricity suppliers to source an increasing proportion of electricity they supply to customers from renewable sources. RO Certificates (ROCs) are issued to operators of accredited renewable generating stations for the eligible renewable electricity they generate. Operators can then trade the ROCs with other parties, with the ROCs ultimately being used by suppliers to demonstrate that they have met their obligation. On the other hand as the price of solar panels and system installation costs have fallen and the cost of electricity generation by traditional methods has increased so solar power has increasingly achieved so called 'grid parity' where electricity generated from solar sources becomes equal in cost, or less than, purchasing power from the grid, so this would seem to favour a continuing shift in generation patterns to solar sources.

A number of developers including Lark Energy, Orta Solar, Ownergy, Belectric, Sun Gift Solar, Solarfields, TGR Renewables, and Ardenham Energy, offer design and build solar farm services to landowners and they lease land and operate solar farms themselves. Lark Energy, for example claim to be one of the UK's leading solar farm developers and they offer clients a range of services including finance, land acquisition, development and planning, engineering procurement and construction and operation and management. The company have experience in securing finance for solar farms, in selling solar farm sites at the ready to build stage and operational solar farms and reports good extensive relationship with a range of banks, finance houses and fund managers. Lark Energy looks to manage solar planning applications and to embrace undertaking planning feasibility studies, arranging pre-application meetings with local authorities and conducting extensive stakeholder consultations. Solar farm projects are taken from the initial concept to the commissioning stage and the company offers engineering procurement and construction services for turnkey construction of solar farms. Support systems for the ongoing operation and maintenance of solar farms include PPA negotiations, ROC registration and meter readings, performance monitoring, landscape management, annual inspection and maintenance and security.

Orta advertise seeking sites for solar farm development in the south of the UK and the company identify three stages, spanning in total between 18 and 58 weeks, in the development process. The first stage, typically taking between 2 and 6 weeks, focuses on site lease selection, including a review of ownership, leasing and longevity issues, the identification of the solar potential of the site and the completion of an exclusivity partnership between the company and the landowner. During the second stage the company undertakes a range of survey work embracing the topography, substructure, landscape, visual amenity, flood risk, highway access and the capacity of the electrical grid; designs the necessary electrical and mechanical systems; makes a grid application to the local electrical network operator; and submits planning application to the local authority. Thirdly, the construction and commissioning stage involves ordering the component systems; preparatory groundworks; the installation of the both the framework for, and the subsequent fitting of, the solar panels and the electrical cabling; inverter and metering

equipment; connection to the grid; and the submission of proof of installation and commissioning to the Office of Gas and Electricity Markets (OFGEM) for registration for PPAs. The company normally runs the solar farm for a couple of years after commissions to ensure that it delivers to specification but then the land owner is free to choose an alternative operations and maintenance vendor.

Environmental, Community and Economic Issues

Proposal to develop solar farms have generated a wide range of environmental, community and economic issues. These include impacts on land, landscape and visual amenity; ecology and nature conservation: cultural heritage and historic environment; construction traffic and highways; security; economic benefits; and potential economic and social impacts within the community. Although many local planning authorities clearly support solar energy developments in principle they have often emphasised the importance of giving full consideration, where appropriate, to many of the issues listed above. In providing strategic planning observations to Newark and Sherwood District Council on a proposed solar farm at Bilsthorpe in Nottinghamshire in February 2013, for example, the County Council expressed concerns over *'the potential impact of the proposal on the ecology, historic environment and landscape of the County'* but reported that they could not make a formal recommendation until significant work had been undertaken and relevant information has been provided by the developers (Nottinghamshire county Council 2013).

More generally issues concerning land, landscape and visual amenity have focused, for example, on the impact on landscapes and agricultural land. In a report on a proposed solar farm at Great Glenham, presented to Suffolk Coastal District Council by the Head of Planning and Coastal Management in March 2013, it was argued that *'landscape impact is likely to be the most critical issue'* (Suffolk Coastal District Council 2013). While the report stressed that a Landscape and Visual Assessment Impact concluded that although the area of land covered by the solar farm was significant the structural form of the solar panel arrays would be low level and that the landscape impact would be limited and that the local pattern of topography, vegetation and development would limit the extent to which the proposed development would be more generally visible within the surrounding area. A number of objections to the proposed solar farm at Great Glenham focused on the loss of what was seen to be productive agricultural land but the report to the District Council emphasised that the development proposal was reversible and did not destroy the fundamental agricultural qualities of the land which could eventually be returned to full agricultural production. At the same time local planning authorities have expressed concerns about the cumulative impact of solar farms in areas where development pressure are strong and South Somerset District Council, for example, has emphasised that it does not support the prospect of a regular spread of solar farms across the whole of its jurisdiction.

In addressing ecology and nature conservation local planning authorities have generally looked to recognise that solar farms could have implications for habitat loss, fragmentation and modification and displacement of species. The nature and scale of any such impacts will clearly depend on the ecological features and the characteristics of proposed sites. On the one hand solar farms may reduce habitats but on the other hand

they may also allow the integration of land uses and produce environmental benefits. Here a number of local authorities have employed ecology consultants and advisers in an attempt to mitigate adverse impacts and to maximise possible biodiversity enhancement. Solar farms can have impacts on a range of heritage assets, including sites, monuments, buildings and landscape, both above and below ground, though here the impact of solar farms will generally be site specific. However in Cornwall, a county where development pressures for solar farms are possibly greater than anywhere else in the UK, the County Council expects all development proposals to be informed by a consultation with the Historic Environment Record (HER) and has made arrangements for a priority service with the HER for proposed solar farm developments. An Archaeological Assessment of a proposed solar farm at Crantock in Cornwall conducted by HER in 2011, for example, provided a chronological summary of the site and its landscape and an inventory of sites within and adjacent to the proposed development area and reported that a number of the sites were considered to be of high significance and of national importance. That said the report concluded that the impact of the proposed solar farm on the archaeological resource was assessed to be minimal if recommended mitigation measures were undertaken. These measures included a geophysical survey prior to any construction work to allow the identification of any buried sites, careful design of the proposed works to reduce the impact on field systems and any documented archaeological sites, controlled soil stripping and the analysis of mitigating archaeological recording should be compiled , analysed and published.

While some concerns have been expressed about increased traffic flows and vehicle movements and more general disruption during the construction phase this is generally seen to have a very limited impact. Generally developers stress that it would be unlikely that any exceptional large or bulky loads would be delivered to solar farm development sites during the construction phase and they are always willing to agree traffic routing with local highway authorities and the police to minimise the impact of construction activity on local road networks. Many local planning authorities usually advise applicants submitting solar farm development proposals that they must provide full details and specifications of all security installations. More specifically the Devon and Cornwall Police Authority have provided advice on perimeter fencing, electronic security, closed circuit television surveillance and landscaping techniques designed to deter unwanted vehicle access .The Authority further suggests that thought should also be given to the wider issue of access around any site and it suggests that where land surrounding a solar farm site is under the same ownership, thought should be given to improving gates so as to provide layers of difficulty for potential criminals to overcome.

Within planning applications for solar farms a number of local economic gains have sometimes been claimed. The construction phase, which might last up to three months, can bring a number of short term benefits including increased demand for accommodation in local hotels and guest houses, increased patronage of local shops, restaurants and public houses by workers and contracts for plant hire companies, hauliers, electrical, groundwork, drainage and fencing contractors. In the longer term while the development of a solar farm might result in a fractional reduction in employment, ongoing site maintenance and management, environmental stewardship and the introduction of schools visits programmes may produce a small net gain in employment. More generally some developers have argued that the development of solar farms in rural areas will have a long term

multiplier effect not only in terms of new employment opportunities but also in that workers will be exploring new opportunities outside traditional agricultural employment.

Some residents living close to proposed solar farms have expressed concerns that such developments will reduce neighbouring residential property values. While there have been press claims that properties have been, and will be, devalued by the development of solar farms a number of local planning authorities have dismissed such claims. In recommending approval for a solar farm on 65 hectares of agricultural land at Hundon in Suffolk, St. Edmundsbury Borough Council (2012), for example, noted that *'concerns have been expressed over the impact on neighbouring property values from the proposed solar farm'* but stressed *'these are not considered to be material to the assessment of this application.'* More generally, if perhaps more predictably, a leading trade source has argued that *'to date there is no evidence to suggest that solar farms negatively affect property prices'* (The Solar Trade Association 2013).

A number of local planning authorities have been keen to suggest that community engagement should be seen as an integral part of the development process. Developers have often reported recognising the need for accessible and inclusive public consultation in order to allow people in the area surrounding proposed solar farms to express their opinions and ask questions within a timeframe that allows for a constructive dialogue and appropriate response but the level of public involvement has often been low and sporadic. An e-petition launched on the Cornwall Council website in November 2012 (Cornwall Council 2012) argued that *'the cumulative impact of solar farm development is having a damaging effect on Cornwall's landscape and rural economy, and should be suspended immediately until a coherent policy based on the wishes of the people of Cornwall is put in place'* and that solar farm development *'should be directed towards previously developed land or brownfield sites.'* The petition which called on *'Cornwall Council to suspend the development of solar farms on greenfield sites with immediate effect'* had attracted 660 responses (representing some 0.12% of the population of Cornwall) by early May 2013.

Discussion

A growing number of public and media relations companies are working on solar farm developments and proposals for a range of clients and this work embraces managing communication activities, community engagement, awareness raising campaigns, informing and shaping public opinion, working with farmers and land owners to help them realise the potential of solar farm development, helping to position local authorities as leaders in the renewable energy sector, working to attract investment into solar farms, and overcoming community opposition to specific developments. A few simple illustrative examples give some impression of the nature of this work. Collings and Money, for example, claim to offer a full marketing and communication service to solar farm developers including marketing and communications strategy and planning, copywriting and the dissemination of press releases, securing editorial opportunities in the trade press, negotiating and implementing advertisement campaigns, managing advertisement schedules, securing speaking engagements at conferences, managing participation at exhibitions and designing and managing print and online marketing materials.

Athene Communications worked with Lark Energy on community engagement for the large solar farm development at Wymeswold mentioned earlier. In reporting on this project Athene Communications (2013) emphasised that Lark Energy's belief that *'with the solar industry under continuing time pressure because of frequent changes in clean energy support rates....a proactive approach to community engagement and stakeholder management made all the difference to ensure smoother planning process.'* Athene's approach to the project included community audits; statement of community engagement; the delivery of a preplanning application engagement and consultation programme; feedback to the community; and a trouble shooting service. The community audits, for example, focused on research designed to help demonstrate an understanding of local people's opinions and align engagement with their interests while trouble shooting involved providing mediation services to proactively manage objectors within a community.

Research undertaken by the CC Group suggests how renewable energy companies can combat uncertainty and confusion amongst farmers and landowners and help them invest in renewables. The focus was on how renewable energy marketers can better inform rural businesses, boost their sales and increase renewables investment in the British countryside and involved a random sample of 130 British farmers and landowners. Respondents fell into three groups, namely 'converts', who had already invested in renewables and who might invest again, 'believers', who were considering investing in renewables and 'latecomers', who had not considered any such investments. When making investment decision 'converts' particularly valued conversations with experts, statistical information, particularly on future income, and testimonials while such information was also important to 'believers' they specifically emphasised the need for information on the benefits of different technologies, negotiating the planning process and advice from trustworthy providers. For the 'latecomers' personal conversations and future income calculations were most highly valued. Overall CC Group's research revealed that many farmers and landowners *'are confused about the renewable energy options available and the potential for their businesses'* and concluded that *'renewable energy companies must better understand and meet the communication needs of farmers and landowners'* (CC Group 2013)

Within the US, Solargen Energy has worked with a strategic communications company, Passantino Andersen, to help overcome community opposition to the development of a solar farm in the remote Panoche Valley in San Benito County in northern California. The site of the proposed development was a traditional haven for bird watchers and a few kilometers from a number of small organic farms. Local farmers and wildlife and environmental groups campaigned against the proposal and the developers and Solargen engaged Passantino Andersen to address the campaigners' concerns, build alliances and mobilise supporters to overcome opposition influence and create a political climate that would favour timely government approval. The communications company conducted public opinion research designed to identify likely supporters and opponents and the issues of importance to both audiences, looked to develop compelling messages that would help to foster a sense of ownership for the solar farm amongst the target audiences, offer something of value to the area that it would not otherwise receive and to keep communications constant and consistent in order to maintain control over the debate. In devising its messaging, for example, given the high unemployment rate within the county,

Passantino Andersen stressed the importance of the economic benefits the solar farm would generate and the developer's commitment to provide \$10 million to offset property tax exemption. At the same time government decision makers were fully briefed on opinion poll research results, the benefits of the proposed development, stakeholder engagement and levels of public support in an attempt to build and maintain their confidence.

More generally the underlying message is that *'progress on renewable energy deployment is not only a question of the factors related to technologies, institutions, regulations and finance It is also matter of perceptions and awareness among key groups who will determine the fate of renewable energy: policy makers, industry and the general public'* (Collings et. al 2013). However recent research by the CC Group (2012) suggests that *'the media discourse is stacking up against renewable businesses'* and that *'rather than focusing on competent business growth, development, technological innovation , investment and regional benefits- the real story of renewables- national media coverage has become dominated by political showboating, anti-renewable myths and skewed representations of the industry.'* In a similar vein in their *'Scoping Study'* of *'Communication Best-Practice for Renewable Energy'* Collings, Cottrell and Leopold (2013) concluded that *'while we observed many examples of renewable energy communication strategies adopting practices consistent with guidance from the communications industry and literature, in many cases considerable room for improvement in the preparation, execution and evaluation of campaigns remains.'*

More specifically Collings, Cottrell and Leopold (2013) made seven recommendations for communications strategies in the renewable energy sector namely that:

- *'development of renewable energy campaigns should be approached as a process with clearly defined stages*
- *partnering and pooling resources should be undertaken more often to increase funding for renewable energy communication campaigns*
- *pre-campaign research in renewable energy communications should be more thorough, aimed at getting better understanding of public opinion about renewable energy*
- *behavioural economics findings should be applied to the development of renewable energy communications*
- *more innovative and emotive messaging of renewable energy communications would elicit more positive responses*
- *ongoing and post-campaign evaluation should be consistently applied for quality control at all stages of renewable energy communication processes*
- *communication strategies should be more proactive in responding to negative media coverage of about renewable energy.'*

In concluding their study Collings, Cottrell and Leopold (2013) suggest that an international survey designed to *'identify specific misconceptions held by a range of population segments'* and the development of *'a communications knowledge platform for renewable energy to pool information and knowledge from a number of stakeholders'* would *'have the potential to bring significant practical and theoretical contributions to overcoming current renewable energy communication challenges.'*

Conclusion

The UK Government has argued that solar power has the potential to form a significant part of the renewable energy generation mix and thus to meet its target of achieving 15% of the nation's electricity generation from renewable sources by 2020. While the UK Government recognises that it faces uncertainties in delivering its renewable energy targets for 2020, not least in estimating future energy demands, the cost of renewable technologies and the level of renewable deployment the industry believes can be achieved, the continuing development of solar farms seems likely to be an important element in achieving these targets. The development pressures for solar farm development are likely to continue to be greatest in the South East and the South West of England. While solar power is just one element in the mix of renewable energy resources but public relations companies have an important role to play in fostering the transition from fossil fuels to renewable sources of energy.

REFERENCES

Aspectus Pr (2013) 'Solving PR challenges in the energy sector.

<http://www.aspectuspr.com/intelligence/solving-pr-challenges-in-the-energy-sector/>

CC Group (2012) 'How the UK national media treats renewables',

<http://www.ccgrouppr.com/wp-content/uploads/2012/11/Whitepaper-How-the-UK-national-media-treats-renewables-November-2012.pdf>

CC Group (2013) 'How to talk so farmers and landowners listen',

<http://www.ccgrouppr.com/wp-content/uploads/2012/01/0517-Digital-Report-FINAL6.pdf>

Cornwall Council (2012) 'Petition: Solar Farms on Farmland',

<http://www.freepetition.co.uk/cornwall/SignPetition.aspx?apcode=P49ID2811201220538>

Department for Communities and Local Government (2012) 'National Planning Policy Framework',

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/6077/2116950.pdf

Department of Energy and Climate Change (2011) 'UK Renewable Energy Roadmap',

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48128/2167-uk-renewable-energy-roadmap.pdf

Farming Futures (2012) 'NFU Response to "Are Solar Panels Sustainable?"',

<http://www.farmingfutures.org.uk/blog/nfu-response-%E2%80%99Care-solar-panels-sustainable%E2%80%9D>

Gov UK (2013) 'Increasing use of low carbon technologies',

<https://www.gov.uk/government/policies/increasing-the-use-of-low-carbon-technologies>

Nottinghamshire County Council (2013) 'Strategic Planning Observations on a Full Planning Application for a Solar Farm, Bilsthorpe Business Park', <http://www.nottinghamshire.gov.uk/DMS/Document.ashx?czJKcaeAi5tUFL1DTL2UE4zNRBcoShgo=%2FiAF2%2FrAVzQxkfTnwT3FNjBa2QIHpbXA0qjkrQBMzK5UsByJJ6tWA%3D%3D&mCTIbCubSFfXsDGW9IXnlg%3D%3D=hFflUdN3100%3D&kCx1AnS9%2FpWZQ40DXFvdEw%3D%3D=hFflUdN3100%3D&uJovDxwdjMPoYv%2BAJvYtyA%3D%3D=ctNJFf55vVA%3D&FgPIIEJYlotS%2BYGoBi5olA%3D%3D=NHdURQburHA%3D&d9Qjj0ag1Pd993jsyOJqFvmyB7X0CSQK=ctNJFf55vVA%3D&WGewmoAfeNR9xqBux0r1Q8Za60lavYmz=ctNJFf55vVA%3D&WGewmoAfeNQ16B2MHuCpMRKZMwaG1PaO=ctNJFf55vVA%3D>

PricewaterhouseCoopers (2010) 'Solar Power: Generation and Transition', http://www.pwc.com/en_GR/gr/publications/assets/solar-power-generation-transmission.pdf

Solar Voltaic Energy (2013) 'Renewable Energy Map', <http://www.renewables-map.co.uk/about.asp>

St. Edmundsbury Borough Council (2012) 'Planning Application – Installation of a 35 MW Solar Farm and Associated Infrastructure for Lark Energy', http://www.stedmundsbury.gov.uk/council_and_democracy/your_council/documents/reports/D214%207%20SE-12-1114-FUL%20Broxted%20Solar%20Farm,%20Steeple%20Chase,%20Hundon,%20Suffolk.pdf

Suffolk Coastal District Council (2013) 'DC 06/013 Development Control Committee 27 March 2013', <https://apps3.suffolkcoastal.gov.uk/committeeminutes/showagenda.asp?id=18945>

THE AUTHORS

Peter Jones and Daphne Comfort work in the Business School at the University of Gloucestershire and David Hillier is an Emeritus Professor in the Centre for Police Sciences at the University of South Wales.