

# Clouds on the horizon

With new siting constraints and plans to end guaranteed subsidy, the government is casting a shadow across the solar boom. But some optimism persists, says Ben Kochan

Driven by generous subsidies and relaxed planning policies, the number of solar farms has grown dramatically in the past three years.

Department of Energy and Climate Change (DECC) figures suggest overall solar photovoltaic (PV) capacity in the UK grew by 60 per cent last year and by 80 per cent between 2011 and 2012, following a tenfold increase in the year before that. Growth in large-scale solar PV installations (defined as schemes with a generating capacity of 5MW or more) was particularly notable last year, with a six-fold increase in their capacity from a very low base in 2012, according to solar market analysts NPD Solarbuzz, which tracks all UK PV schemes.

But this boom may soon be over. The government is taking action on several fronts to rein in solar farm expansion.

In May, DECC proposed that, as of next year, solar schemes above 5MW should compete for subsidy with other renewable energy sources, such as onshore wind, hydro-electric power and waste-to-energy technologies. The department is proposing to withdraw the set subsidy that is specifically for solar, and introduce a blanket subsidy for all renewable energy schemes. This would put all renewable energy firms in competition to lower the costs of producing energy as, under the system generators would receive a top-up payment when the wholesale electricity price is below a pre-agreed "strike price", and pay money back when the price rises above it.

Earlier, ministers had made it clear they wanted solar developers to look for alternatives to large greenfield sites. DECC's solar strategy, published in April, favours mid-sized PV schemes built on top of commercial buildings, and urges solar farms to be sited on brownfield land.

Shortly before that, the Department of Communities and Local Government's Planning Practice Guidance, published in March, had warned solar farm applications were only suitable for sites with certain kinds of topography. It states that solar farms "can have a negative impact on the rural environ-

ment, particularly in very undulating landscapes". Industry body the Solar Trade Association (STA) accepts that some of the first generation of solar farms have not helped the technology's reputation. "Some of the early schemes were poorly sited and have attracted attention," says the association's senior policy analyst Mike Landy. This has led to local authorities becoming more selective about the solar farm applications they approve, he adds.

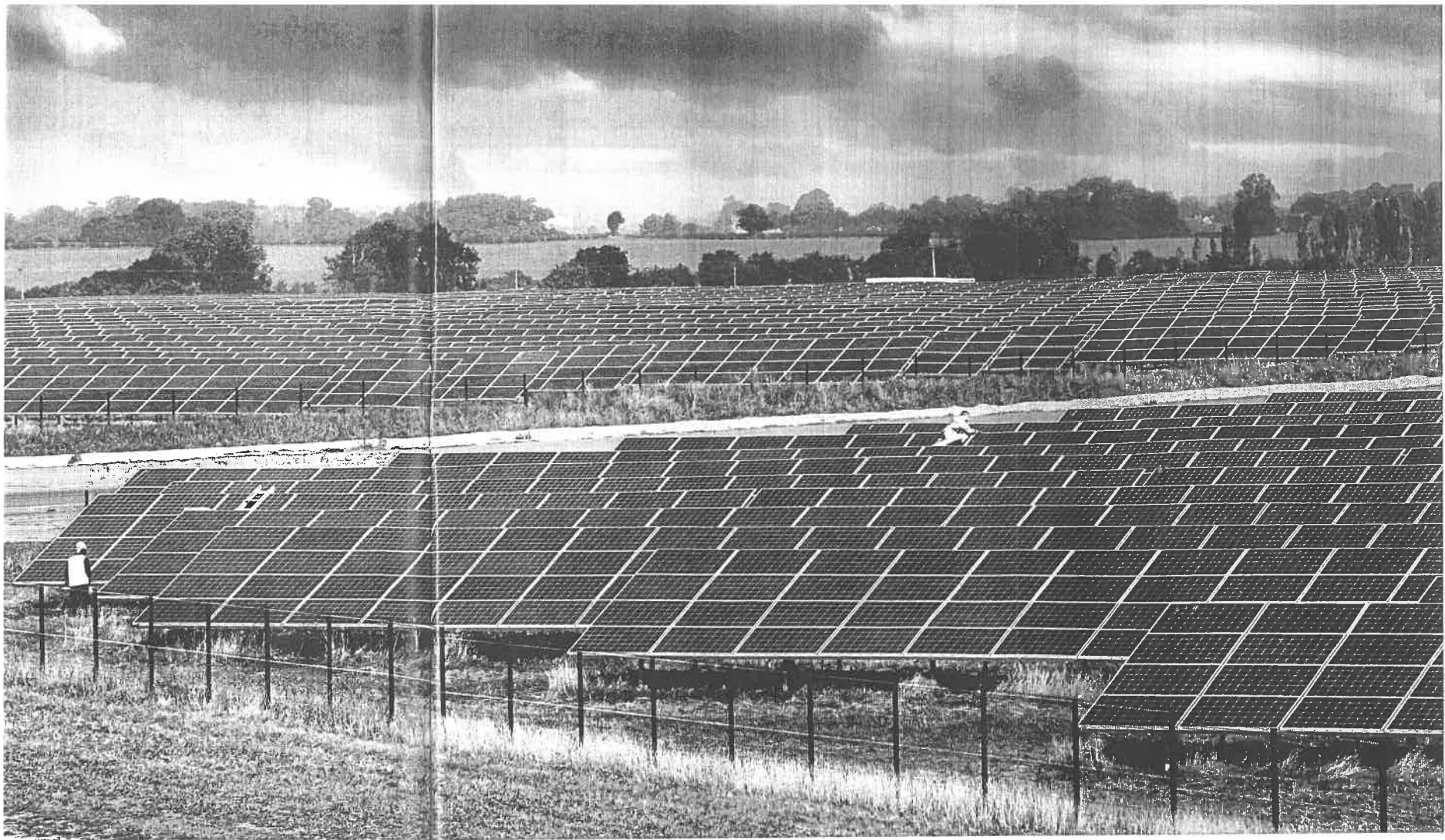
Certainly, solar farms are beginning to cause more conflict in the planning system. More large schemes are ending up at appeal. Analysis of appeal outcomes conducted by *Planning's* sister company DCS shows 13 large PV schemes being considered by inspectors in the first five months of 2014, with seven being refused. This compares with 14 appeals for the whole of 2013, of which eight were rejected.

Cornwall Council was inundated with applications in 2010 and lessons were learned, says its principal planning officer Dan Nicholls. "We are now working with a number of potential developers with a portfolio of sites and we will help identify the most suitable and agree a timetable for their consideration," he says. "Cumulative impact is also now becoming a major consideration, as so much development has already taken place."

But even if there have been some problems with the first solar farms, industry commentators fear that some of the government's proposed solutions could stifle the growth of a valuable source of renewable energy.

STA chief executive Paul Barwell is concerned the proposed subsidy change may discourage developers from investing in the technology. "The price of PVs has come down dramatically, but solar still won't be able to compete for a few years," he says.

Others warn of the limitations of trying to direct solar power generation onto rooftops and brownfield sites. "DECC's new emphasis on urban rooftops makes sense," says Adrian Lea, technical director at consultants Wardell Armstrong. "But the scale of urban facilities will be far smaller than the solar farms planned in rural settings." There



Following a three-year boom in solar energy developments, there are fears new siting and subsidy regulations could halt progress

are upsides though: Mike Kiely, London Borough of Croydon planning director, says that in London office developers are keen to include solar arrays as part of their development, and that approach has also been supported by the mayor.

Steve Pester, principle consultant at research and accreditation provider BRE's National Solar Centre, acknowledges that "having a large array on the roofs of industrial buildings is efficient, even if it only contributes 50 per cent of the energy requirement of the plant inside". Car park roofs could be covered in PV arrays with minimal visual impact, he adds.

But he warns that revisions to national policies and design standards are needed if rooftop arrays are to become more common. Pester says planning and design policies need to require roofs to be built to a standard that can bear the panels.

Nonetheless, there are reasons for the solar industry to retain a degree of optimism.

The Government's Planning Practice Guidance contains encouraging as well as cautionary words about solar farms. It says "the visual impact of a well-planned and well-screened solar farm can be properly addressed if planned sensitively".

Some councils are still positive about solar farms. Swindon Borough Council is proactively seeking sites for PVs. In March, its planning committee agreed to invite landowners and the local community to suggest sites, which will be assessed for suitability and deliverability. The intention is for the final list of sites to be covered by a local development order. The coun-

## FIVE TIPS FOR HANDLING PV SCHEMES

**1 Solar PV installations are treated as temporary applications, generally with a life of 20 years, and schemes should be reversible.** BRE's National Solar Centre's planning guidance suggests only modifications that are easy to reverse should be made to the site. Trenching and foundations should be minimised and the use of mass concrete avoided, it says. Planning conditions can be used to ensure the installations are removed when no longer in use and the land is restored to its previous use, according to the guidance.

**2 Solar farms can enhance local biodiversity – particularly if the site has been farmed intensively.** According to BRE's guidance on biodiversity and PV developments, management plans setting out how biodiversity will be achieved should be required for every farm. The use of hedgerows, growing grass across the site and digging ponds can help, the guidance recommends.

**3 Cumulative impact of PV farms is an important issue that planning authorities need to address.** The BRE planning guidance recommends that local planning authorities should maintain a record of all planning applications and decisions for large-scale solar PV installations. Prospective

applicants should be referred to those records so that the cumulative impact of such developments can be considered, the guidance says.

**4 Low-intensity grazing can provide a low-cost means of managing grassland.** Cornwall Council's planning guidance points out that grazing increases its conservation value and enables the land to remain agriculturally productive. Sheep are generally small enough to pass beneath the rows of panels, the document says. Applicants for solar farms should design their schemes in such a way as to make grazing possible to help minimise negative environmental impact.

**5 PV developers should avoid upper slopes or headlands, according to Devon County Council's landscape policy group.** Instead, the group suggests that developments should be sited on lower slopes or within folds in gently undulating lowland landscapes, or on plateaus. The group's guidance recommends that any PV development on a plateau should generally be set back from the edge to minimise the effect on views from surrounding areas. It suggests that PV farms should be developed in enclosed sites that have high hedges or are surrounded by woodland, rather than in open and unenclosed landscapes.

cil expects most to be on greenfield sites, but it could also be mounted along the side of roads even motorways, according to planning services manager David Dewart. "We would not be able to achieve our renewables target if PVs were confined to mounted locations and brownfield sites," he says.

Councils are also promoting community-led schemes, which are encouraged in the National Planning Policy Framework. Cornwall Council is bringing forward supplementary planning guidance to add additional weight to community-led schemes. Tom Bourne, a project manager at Regen SW, which promotes sustainable energy use across the South-West, says there has been a lot of interest among communities, but "there was a lack of knowledge and expertise to take forward a PV scheme". Bourne suggests neighbourhood plans and development orders could be used.

Meanwhile, developers are aiming to raise the game, according to the STA, which last year published ten commitments to reduce schemes' environmental impact. Landy says developers have these to work more actively with councils and communities before applications are made.

And while government's attitude to large-scale seems to be cooling, Bernice Roberts, direct planning consultants the Landmark Practice, advises on solar farms, points to DECC's own survey, showing more than 80 per cent of the population support the use of PV. "The best schemes still go ahead," she suggests. ■

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