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## THE POWER UK INTERVIEW

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# Dave Sowden, chief executive of the Micropower Council

One of the logical developments of the introduction of domestic retail electricity competition is a shift from service based competition, eg offering different price tariffs, to facilities competition, where retailers would offer customers products, such as smart meters and home generation kit – much in the same way that mobile phone and broadband technology have transformed the telecommunications market. However, such a shift has yet to happen in the UK domestic electricity sector despite evidence that, as energy costs go up, the majority of consumers would be interested in generating their own power. There is huge potential for growth in the so-called microgeneration market but barriers still remain to its take-up. **Dr Dominic Maclaine** spoke to one its most articulate advocates about what needs to be done to boost this fledgling market.

In the few short years since he became the Micropower Council's first chief executive, Dave Sowden has had a major impact on the micro generation cause pushing it up the agenda in Westminster circles. He was instrumental in encouraging the government to establish a strategy for the sector, accompanied by an Act of Parliament (Climate Change and Sustainable Energy Act 2006) and a number of the major utilities are now involved in significant micropower programs.

Sowden and others, such as the Energy Savings Trust, believe that microgeneration – such as domestic combined heat and power devices, photovoltaics (PV) and home wind turbines – could provide up to 40% of the UK's electricity requirements by 2050.

But getting to that kind of level will require many obstacles to be overcome and substantial government support – at least in the short term. Many technologies are on the cusp of being commercially viable but still need some kind of government support to encourage their take-up.

And although there are government grants available to home owners, the number of grant supported installations for individual householders has remained relatively low at just over 11,000 between 2003 and 2007. The majority of grant supported installations are for solar thermal products. Issues surrounding the implementation of phase one of the Low Carbon Buildings Programme (LCBP) have meant that the hoped for acceleration in the number of grant-supported applications has not yet occurred. This has caused real difficulties for many in the sector, including job losses and cutbacks in research and development.

Phase two of the LCBP has had a similarly slow start with only around £165,000 paid out so far, and a further £4.8 million committed – compared with the program's budget of £50 million.

Sowden says that this sluggish start has had a direct impact on micropower manufacturers, distributors and installers and has led to job losses at a number of companies. And, he adds, it remains unclear just how the government's Carbon Emissions Reduction Target (CERT) obligation on suppliers – the policy that was seen by many to be set to take over from the LCBP – will aid microgeneration.

Says Sowden: "The Prime Minister, when he was Chancellor, made it clear last March that these grants were to come to an end in 2008 and other policies would be taking over. It was strongly inferred within his speech that the CERT scheme would be the mainstay policy to take over. But our analysis of the CERT order is that this is not going to be the case."

Warns Sowden: "They have given a little on microgeneration but if you compare the current support levels through grants from government with what we think are going to be the support levels suppliers will wish to pay under CERT, we see cuts across a range of microgeneration technologies. For PV, for example, we are expecting to see a 90% cut in the support on offer to an individual household."

### The Renewables Obligation

So, with little support for microgeneration set to come from the CERT once the LCBP scheme ends, the Renewables Obligation seems set to be pretty much the only support mechanism left for microgeneration technologies. What is worse is that it is only for electricity technologies, and does nothing for non-renewable forms of microgeneration either.

But, warns Sowden, much needs to be done to the RO for it to have a significant impact on microgeneration take-up.

"We think there are some very straightforward changes that can be made that would allow domestic customers to access the benefits the RO offers. But they can't access them because the transactions costs of doing so outweighs the benefits that would come through. We have been banging that drum for several years and think that it is only now that we are finally getting the message through."

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***It is important to understand that the Merton rule now is already filling order books. Our real concern is if the Merton rule is not continued or built upon or made more ambitious.***

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Working out the value of the green power exported from a domestic home (in terms of Renewables Obligation Certificates (ROCs)) is the main issue to be solved. For the customer with the micro generator the associated "hassle factor" can discourage participation, particularly where their annual generation volumes result in them only being entitled to one or two ROCs per year. Suppliers (or agents) can shoulder much of the burden but that in turn increases their own administration costs.

For small volumes of renewable generation, the transaction costs can cut into a large chunk of the value of the ROC to a supplier. Although the government has already made some attempts to address these problems, two big costs remain: getting accreditation for the generator and the requirement to get the customer to provide a generation meter read within a five-day period either side of March 31 each and every year (a particular problem when it falls in the Easter holiday).

Says Sowden: "In practice, it means the energy supplier has to remind the customer to read the meter at that time so there is a transaction cost there. Then they usually have to remind them again. A ROC is only worth something in the region of £45 so you eat away at the benefit very quickly with every intervention that you have to make.

"It would be much more simple to take a stab at this," he says. "For instance, we will know that a particular manufacturers' PV unit is going to produce one ROC's worth of power a year. So if the customer has such a unit and it is type approved, why can't it buy a customer the right to buy a ROC a year for the next ten or so years? That would be much simpler and that entitlement would go on a central register and you would not have to worry about meter reads. That is something that government is now looking at much more seriously than it has before."

But even with such changes to the detail, Sowden says that the level of funding available under the RO needs to be ramped up to compensate for the scrapping of the LCBP scheme.

"If you look at the support levels that we are seeing today and you map that across into a feed-in tariff or changes to the RO then you actually need about ten times as much as is proposed in the RO banding proposals to get you up to the same level of money for some technologies," he says.

### **The path to 2016**

Keeping significant levels of support in place over the next few years is vital, says Sowden, if the government's commitment to making all new homes zero carbon by 2016 is to be achieved. Microgeneration is set to play a major role in this plan but only if the industry can grow steadily between now and then.

"There is a political consideration about whether the UK government is prepared to put sufficient transitional subsidy in place in the early stages of development of the industry in order for it to stand on its own two feet at an earlier stage or not," he says. "The current indications are that, for a number of technologies, they are looking to cut support levels rather than increasing them. Clearly that is not helping an industry that wants to get more efficient, that wants to see its costs of production fall so that it can bring forward the date when it is less reliant on subsidy."

One of Sowden's main concerns is about the future of the Merton rule – which requires developments over a certain size to get a proportion of the development's energy needs from renewable sources. The Merton rule has proved invaluable in building supply chain capacity in the last few years says Sowden who argues that it is critical to meeting the 2016 goal.

The policy was strengthened by a ministerial statement mandating that all local authorities are expected to have a policy similar to this. However, the recent draft of the Climate Change Planning Policy Statement reverses this ministerial statement because it refers to such policies needing to "avoid blanket requirements" and requires that they be restricted to "site-specific opportunities." This concerns Sowden.

"It is important to understand that the Merton rule now is already filling order books," he says. "Our real concern is if the Merton rule is not continued or built upon or made more ambitious. There are two step changes to that zero carbon housing ambition. One is in 2010, where there will be a 25% tightening of carbon emissions from a building. That we don't expect, on its own, to create a great deal of demand for new micro-generation. You can achieve that quite easily and cost-effectively by better insulation.

“The other big step change that house builders will have difficulty complying with without some form of microgeneration technology is the one in 2013 – which is a 44% cut.

“That is the one where we are concerned that, in five year’s time, if you haven’t built an industry steadily towards it then all of a sudden this legislation will get thrust upon the home builders and they will say ‘hang on there isn’t a microgeneration industry out there that is capable of servicing this demand’. You can’t create an industry overnight.”

He warns: “If the Merton rule got watered down and we stopped seeing local authorities introducing policies like that then we think demand would take a fairly serious downturn. The pure market theorists would have us believe that the market will just respond and create the infrastructure and capacity to do that by then. In practice, business doesn’t quite work like that. What really happens is if people are going to churn out 100,000 installations per year they have invest in the training, build up capacity and learn by experience.”

In addition, a big policy gap remains concerning existing buildings, he notes. “We have to remember that the zero-carbon homes policy in 2016 will only affect 250,000 homes each year,” Sowden says. “We have already got 26 million homes that have already been built and this really is a quite a big policy blind spot because the only policy mechanisms to tackle that are the energy suppliers’ duties to improve energy efficiency through CERT and, that certainly doesn’t do it.”

### **Building up the skills base**

Of course, installing so much new micro-generation technology will require an army of skilled workers. And there lies another problem, warns Sowden, because building up such a workforce will take time and money. And while demand for microgeneration products remains low, there is little financial incentive for installers to undertake training in these new technologies. This in turn limits the choice for those customers who are interested and further suppresses demand.

Sowden says that despite significant investment by Micropower Council members to train installers, their efforts appear piecemeal in an industry where there is in excess of 100,000 CORGI (Confederation for the Registration of Gas Installers) registered installers.

Nevertheless, Sowden wants to establish an accreditation scheme, similar to the CORGI scheme, for microgeneration installers, that will help bolster workforce standards as well as consumer confidence.

“The industry does want to see a strongly branded scheme that works well and is efficient and gives consumers the assurance that they want,” he says. “By buying services with this stamp on you are getting something where somebody else has worried about all

of the quality requirements and you don’t have to worry about them yourself.”

However, the accreditation scheme that currently operates has a number of teething problems, says Sowden.

“The biggest problem is the creation by the government of a de facto monopoly for certification services which rests in the hands of BRE (Buildings Research Establishment),” he says. “BRE, which runs certification services itself, is sole adjudicator of who is allowed to provide certification services under this scheme.

“Problem number two is the cost of the scheme,” he says. “The scheme’s fees are £1800 to join and then £900 a year for the ongoing fees. Those costs are driven by BRE’s interpretation of how closely they need to monitor the companies that are in the scheme. Without judging whether BRE is right or wrong, the point is if we introduce competition into certification services, the different certification bodies will judge what is necessary against the background of the scheme’s rule book – which is governed by the industry.”

Nevertheless, he is hopeful that such teething problems can be ironed out. “It has a number of difficulties at the moment but it doesn’t mean that it is the wrong thing to do,” he says. “We are working pretty hard to knock it into shape.”

But even if he and his team do manage to establish such a scheme, Sowden says that the growth of the embryonic microgeneration industry and the need for installers will founder unless the government sets clear targets for the take-up of micro generation.

“An investor that is presented with a hard government target compared with merely warm words from ministers without any quantified commitment, will see the opportunity with the target attached as a much less risky investment,” he says. “For that reason our member companies find it harder to attract investment. We do think that the government must be much clearer about its vision of where micro-generation will fit into the overall energy mix and that means setting clear targets.”

### **Personal profile**

Dave Sowden is an electrical engineer by training, and holds an honours degree in electrical engineering, an MBA from the University of Warwick and is a member of the Institute of Directors, the Institute of Engineering and Technology, the Energy Institute and the RSA. In 2003, he was appointed as the first chief executive of the Micropower Council. He was appointed in 2006 by the UK energy minister to a board of government advisors on renewable energy policy. He is currently managing director of JDS Consulting Associates.