

Microgeneration Strategy and Low Carbon Buildings Programme: Consultation

TV Energy Response

September 2005

General Comments on the Microgeneration Strategy Consultation

TV Energy (TVE) welcomes the Microgeneration Strategy consultation and the government's recognition of the contribution that microgeneration technologies can potentially make to sustainable energy supplies. We are pleased to submit our responses to the specific questions raised. We have confined our comments to questions that we feel our experience and expertise qualifies us to answer.

1. General

Q.1 - What are the main obstacles to the development of a long-term self-sustaining market in microgeneration technologies? How can these obstacles be overcome?

Paragraph 1.4 in the consultation document summarises the constraints to the development of a market for microgeneration technologies. TVE broadly agrees with this analysis, however, we would add the planning process as an additional obstacle. Many technologies involve changes to the external appearance of buildings which require planning consent. Obtaining planning consent is a lengthy and sometimes cumbersome process and success is far from guaranteed. We would advocate the introduction of a streamlined approach to planning consent for both retrofit and new build projects and a programme of education for planning officers and committees on the merits of microgeneration.

Q.2 - What are the most important policy/regulatory/other issues that we should address to facilitate successful implementation of microgeneration technologies?

The most important issues to be addressed are:

- firstly, the provision of adequate levels of effectively targeted capital support;
- access to markets for excess power generation;
- creating a firm understanding of the technologies involved and how they can be incorporated into new and existing buildings across all sectors of the planning profession;
- the development of a support mechanism for renewable heat projects (either a 'heat obligation' or capital grants); and
- communicating the availability of support and the merits of microgeneration.

Q.4 – How will the costs of microgeneration technologies develop over the next 5-15 years? How will these costs compare with low carbon technologies such as large scale renewables and energy efficiency measures?

Over the next 15 years all technologies should hopefully see reduced costs, but this is very dependent on a variety of factors. Some will see reduced costs in the next five years if legislation, funding and the skills gap are addressed. We have given a very brief opinion as to how this will play for the major technologies in the table below, but this is merely an opinion and is not based on any firm data.

Large scale renewable energy projects will always allow for economies of scale, but there are many other reasons for undertaking microgeneration, as outlined in this consultation and the Energy White Paper of 2003, so it is not realistic to seek price comparisons.

Similarly, reduction of energy use should happen as well as microgeneration. It isn't an either/or scenario, so cost comparisons are again unhelpful.

Micro-generation technology	Closeness to market Commercial/Close/Distant/R&D	Cost predictions: 5-year estimate Decrease/ Same/ Increase	Cost predictions: 15-year estimate Decrease/ Same/ Increase
Solar PV	R&D	Same	Decrease
Solar thermal	Close	Decrease	Decrease
Ground/water/air Source Heat Pumps	Close	Same	Decrease
Micro wind eg roof mounted	R&D	Decrease (if made to work)	Decrease
Small wind	Distant	Same	Decrease
Micro hydro	Close	Decrease	Decrease
Woodchip stove heating Woodchip boiler heating	Close	Decrease	Decrease
Wood pellet stove heating Wood pellet boiler heating	Distant	Same	Decrease
Micro biogas from anaerobic digestion	Distant	Same	Decrease

Q.5 - What are the criteria by which the strategy should measure success?

The key criteria against which success should be measured are installed capacity and output. Carbon reduction is one of many benefits to be secured by increasing microgeneration including reduced use of transmission and distribution networks, security and diversity of supply. The microgeneration strategy is unlikely to make significant contribution to carbon reduction or the use of transmission networks in the short term so we would not recommend their inclusion as measures of success. However these benefits should be monitored and recorded.

3. Communications

Q.9 – Where could the Government best target its communications efforts and what should that communications effort consist of?

The Government should target its communications efforts at those sectors of society that do not currently have an immediate requirement to consider microgeneration as an option. For example, developers of buildings are increasingly required under planning policy to consider microgeneration options and the forthcoming EU Energy in Buildings Directive will focus the issue in the minds of large building owners. Thus, whilst some additional targeting of these groups is useful, the real benefit would be to those who have little understanding of the merits of microgeneration, but have a key role to play.

The main group continues to be, in our opinion, the house buying and owning public. Developers continually comment that, when purchasing new housing, potential buyers do not ask about how the house is heated/powered, the associated bills, or the environmental impacts. Equally, when a boiler is being replaced or a house re-wired, tradesmen are not being asked to install a solar thermal system or a micro-wind turbine at the same time. By contrast, in Germany, for example, half of all domestic solar thermal systems installed on annual basis go in when a new boiler is installed. This is a key area that a communications programme should seek to address.

Whilst not being an exhaustive list, other groupings that need to be targeted are mortgage lenders, who can extend credit to fit technologies when houses are purchased; estate agents, who need to understand the added value of these technologies to housing; planners, who need to become more comfortable in applying the changes in regulations; architects and M&E consultants, who often have limited or incorrect knowledge of what these technologies offer; other government departments and quangos, such as Sport England and the Department for Education, as examples, who fund many construction projects where microgeneration is appropriate but rarely incorporated.

While TV Energy is not expert in marketing we have considerable experience in dealing with a wide range of interested parties and in outreach activities, so our comments regarding the form of such a communications programme should take are reflections of

this experience regionally. There will be specific media that best fit each of the groups suggested above and these should be utilised.

One of the most effective marketing tools is in our experience, enabling potential installers to see the technologies installed and functioning. At present this is an expensive undertaking because of the paucity of installations. However, if more buildings were to host schemes, and public buildings would be ideal, this would be less of a problem.

Similarly, positive imagery associated with television/radio can play a part. A small wind turbine on the Rovers Return in Coronation Street, or a PV system installed on a farm in the Archers could increase public awareness and interest. Young people are particularly receptive to the concept of sustainability and can be a persuasive influence on the older generation. Even the very young can have a role to play, for example, this group have recently been receiving consistent messages on this subject through programmes such as Bob the Builder, staff from TV Energy can state that this is already having an influence on their children!

Targeted regional websites showing where renewables are located, such as our own www.see-stats.org in the South East and Scottish Renewables' [Renewable Map](#) can be a useful tool to increase public awareness of the available technologies; their financial, social and environmental benefits; where to visit the nearest example and progress towards regional targets. DTI should encourage and give support to regional bodies to replicate this model across England.

In short, the Government needs to link the ability to host microgeneration in domestic and community building into the Defra programme to raise awareness over climate change and to highlight how it enables the individual to 'do their bit', (although the additional messages of security of supply and insulation against rising fuel prices also need to be emphasized).

Q.10 - How important are these advice/information services to successful development of microgeneration technologies? Is further activity required and if so at whom should it be targeted and who should be leading?

Advice/information services are essential to the development of microgeneration technologies and further activity needs to be better rationalised and funded as there are too many players in the field and not enough funding for large scale coherent support to be developed further.

The work undertaken by the Local Support Teams (LSTs) of the Countryside Agency's Community Renewables Initiative is key as it already has a demonstrable track record of delivery. Microgeneration technologies are a long way from being mainstream purchases; it can take several contacts with promotion and experts in the field before action occurs. The LSTs have built up a terrific head of steam in the last few years and this work needs to continue and be built on.

At the outset of this programme, many of the LSTs were existing energy agencies, or linked in with Energy Efficiency Advice Centres and most had good links with Trade Associations. As they are already undertaking the work required to assist with the development of microgeneration, it seems ill-conceived that other groupings should seek to come in and offer a similar, but far less developed service. It has to be assumed that the over-riding objective is being muddled by a ‘dash for cash’ amongst the organisations named.

In our opinion the work of the EST and Carbon Trust, which are primarily focused on energy efficiency issues, could better be handled by one body and broadened to cover all energy efficiency work (at the moment community groups and SMEs get a raw deal from the services on offer). The LST network should be expanded to offer a complementary service relating to microgeneration and broader renewable energy issues, to cover the whole country and be funded so as to be able to deal with the increasing enquiries that the proposed communications programme is bound to create. To create a division between householder advice (which the EST claims is its key area of delivery) and all other advice strikes us as an odd way to divide work up.

Many LSTs have had good relationships with their local energy efficiency advice centres, but with the pilot studies for REEACs and now SECs, there is a lack of clarity as to who covers what. This is confusing for the public and creates friction between organisations who should be working together. We suggest a fundamental review of the work of the EST and Carbon Trust is required to determine whether this form of delivery is providing value for money. As outlined above, we feel there is scope to merge the two organisations, but, alternatively, given that local authorities have a statutory duty to promote domestic energy efficiency, under the Home Energy Conservation Act, the money might be better delivered via regional government to those local authorities actively undertaking work in this area.

On a practical level, and to highlight the strength of the LST network, the most frequent response TV Energy gets, as an LST, after a first contact with a householder or community group is, ‘Thanks for talking to us, we had no idea where to start!’ This will often be followed by a comment appreciating the holistic, wide-ranging, independent and free to end-user advice provided on renewable energy. There appears to be a clear value to such a service and this should be maintained.

The role of Trade Associations could be strengthened to include the provision of training and accreditation to microgeneration technology installers, which is an area that requires more work. The good work already undertaken in these areas by the various Government grant administrators could ultimately be transferred, with adequate funding, to the various Trade Bodies for further development, along with developing codes of ethics and practice on issues such as selling, workmanship, service etc.

Q.11 –Is there a need for more general communication/education activity and if so how should this be tackled?

See response to Q 9.

Q.12 – Are these existing networks sufficiently coordinated? What more could be done?

Part of our answer to this question is contained in our response to Q 10.

We feel Trade Associations are essential for the education of installers and promoting the interests of their particular branch of the microgeneration industry.

As mentioned in Q.10, we also feel that the work of the EST and Carbon Trust is better amalgamated and focused 100% on energy efficiency. There is more than enough to do in this very challenging sector without broadening the spectrum, and this should be co-ordinated by one body. Energy generation throws up many differing issues to energy usage and thus whilst whoever heads up the provision of microgeneration advice should liaise and work closely with an energy efficiency body, they should be kept as two separate, distinct groups.

Given that energy is a much wider and far reaching topic than just microgeneration, a national Department of Energy, complete with responsible minister, would be a welcome development to tie together the various bits of work that currently sit with DEFRA, DTI and the ODPM. A national renewable energy body and its energy efficiency counterpart could be co-ordinated out of such a government department.

Alternatively, funding could be delivered to regional government, preferably through the Government Offices for the various regions, or through the RDAs, so that local targets and conditions can be better identified and the necessary actions delivered. Such an option would still require a firm overview from central government to ensure national policy objectives remained in focus.

Q.13 – What would be the most effective way of setting up and running a reputable accreditation scheme?

Where effective Trade Associations exist, the administrators of the Low Carbon Buildings Programme should work with them to build on the work already undertaken by the Clear Skies programme and the major PV demonstration programme, so that ultimately, the Trade Associations can take accreditation schemes on.

Where no such TA exists, the industry's embryonic body could be encouraged to mature through being required to adhere to certain defined organisational standards in order to qualify for relevant benefits or status.

Penalties must exist and be applied when quality fails and there will need to be an independent organisation set up to perform this task. This will require funding and support from central government, but this route seems logical if the aim is to build a new sustainable industry.

Q.14 – What would be the most effective way that Government could support the development of robust product standards for all microgeneration technologies (including installation and maintenance)?

See above in Q13.

4. Economics

Q.15 – How can the Government best encourage householders and all businesses to consider microgeneration as part of a package of measures to make their energy consumption more sustainable?

TV Energy welcomes the continued commitment to the use of economic instruments to support the deployment of microgeneration technologies. Below we provide our opinions on the existing schemes and proposals, before making our own suggestions for the future.

Existing schemes

As detailed in the consultation document, microgeneration currently benefits from a range of such instruments. However, the success of the current support packages has been minimal. In broad terms we believe that this has been the case because the level of support has been inadequate and that it has been targeted at the wrong audience:

- The schemes currently in place do not target housing developers or local authorities.
- Schemes currently in place do not offer effective ongoing support, which is required to ensure that systems installed remain operating efficiently over the course of their technical lifetime. Access to ROCs and payment for exported volumes of electricity would be an effective means of securing ongoing support, but both are currently difficult, if not impossible to set up.
- While micro-generation is an effective technology for the domestic sector, in many ways its greatest potential lies in the SME and community building sectors. None of the economic instruments target these sectors.

The specific schemes detailed in the document have proved of limited value for a variety of reasons among them:

- **VAT at 5%** - while a welcome initiative, the reduction of VAT chargeable on the cost and installation of micro-generation systems to 5% simply levels the playing field with respect to the cost of (conventional) fuel. It does not compensate for the increased up-front capital expenditure required over that for conventional systems. We suggest that technologies that offer the benefits of long term reductions in carbon emissions, increased diversity and security of supply in the way that micro-generation does, merit zero-rating for VAT.

- **Support under the EU** – inclusion of microgeneration in the suite of technologies eligible to count towards EU targets is welcome. However, the support available in this way is extremely limited. This is firstly because the EU sets carbon reduction targets that can be met from a wide range of actions including highly cost-effective options like cavity wall insulation and energy efficient lighting. It will be some time before microgeneration is able to compete for funds with such low-cost options. In addition, the EU requires that a large proportion of the gains are made in social housing, helping to alleviate fuel poverty. While we support this aim, it has the effect of reducing the scope for microgeneration systems to benefit under the scheme.
- **Green Landlord scheme** – this is a welcome initiative that should address one of the major barriers to improving the energy efficiency of much of the housing stock. However, since firm proposals for its operation have yet to be worked up we are not able to offer any further comment.

Support schemes for the future

Support schemes for the future need to be effectively targeted, marketed and set at an adequate level. In addition, they need to ensure that investors continue to access value for the additional outlay made at installation throughout the life of the equipment. This question (Q.15) asks specifically, ‘how can government best encourage householders and all business to consider micro-generation as part of a package of measures to make their energy consumption more sustainable?’ Our answer is in four parts:

- Financial support to help with capital expenditure;
- Access to ROC and power markets for exported generation;
- Support for heat-only schemes; and
- Ensuring the benefits are fully realised in the valuation and marketing of the home or building.

Financial support

At present help with funding micro-generation is available under a number of schemes administered at the local, regional and national level including the Clear Skies scheme. Although proposals for continuation of this support are discussed in a later section, it is important to stress here, that, for the most part; microgeneration technologies are not sufficiently developed to be commercially viable without some form of capital support. It is therefore imperative that support continues to be available.

There are, however, some technologies that are closer to market than others and a clear exit strategy needs to be devised to ensure that these technologies do not continue to benefit from public support once they are genuinely commercially viable.

Access to ROC and power markets

In theory, it should currently be possible for microgenerators to qualify for ROCs and to sell any generation not consumed on-site via the local distribution network. However, in practice this is rarely possible. The barriers to small generators accessing these markets have been fully explored by the Distributed Generation Coordination group (DGCG) and TVE endorses their findings. If measures could be introduced that address these barriers, enabling microgenerators to access these markets in a simple and straightforward manner, we believe that the future prospects for microgeneration would be considerably enhanced.

In doing so, however, care needs to be taken to ensure that support is available equally across the range of technologies and installation size. Much of the work of the DGCG focused on small, domestic-sized installations rather than on the scale most likely to be deployed by SMEs and for community buildings. The solutions proposed by the working group will not necessarily be appropriate for the larger-sized microgenerators.

However, it may also be that the costs associated with implementing such schemes together with the high relative transaction costs bring into question the logic of extending a scheme designed for large-scale projects to microgeneration. If this were the case then TVE would suggest that government considers introducing a simple feed-in type tariff to incorporate the value of both ROCs and power for generators of a certain de minimis size. Suppliers could be required to participate and could be credited with ROCs on the basis of a simple estimation of the contribution made by their portfolio of microgenerators.

Support for heat only schemes

There are many locations in which the introduction of renewably-sourced heat represents to most effective means of meeting local renewable energy targets. The potential for carbon savings from renewable heat in small installations is very significant, yet it has been largely forgotten by policy makers concerned with promoting the growth of renewables. It also represents the key to unlocking the potential gains to be made from energy crops and biomass, as has been highlighted in the recent work of the Biomass Task Force. TVE would urge that this consultation considers measures to support renewably-sourced heat, particularly the scope for a heat obligation designed along similar lines to the RO.

Ensuring that investment in microgeneration is reflected in building value

A major barrier to the uptake of both microgeneration and energy efficiency measures is that the property market does not properly account for such investment in the value or saleability of commercial or residential buildings. Clearly government is not able to dictate how property is valued. However, since one of the reasons why this remains the case is the limited understanding of the benefits such investments can bestow on building occupants and owners, government could introduce measures to increase the information relating to the energy performance of buildings available to potential buyers or tenants. Measures could include:

- an obligation on the part of sellers to conduct an energy audit on the building to be made available to buyers;
- a programme of training for estate agents, surveyors and others involved in the property market on the merits of microgeneration;
- means to advantage investors in the technologies in the mortgage and insurance markets.

Q.16 - How can competition for the excess generation from microgenerators be encouraged?

The most important requirement is for the process of exporting to the market to be made less costly and less complicated for both suppliers and microgenerators. Clearly there also has to be an incentive for the suppliers to enter into such arrangements. The volumes are generally so small that it is of little value to them under the current market structure. We have already discussed some measures in the section on ROCs and power export above. Other measures that may overcome these difficulties include:

- the introduction of netback metering, or some other means of simplifying the metering requirements of the RO and power markets;
- an uplift on the contribution that microgeneration can make to a supplier's EEC if an offtake agreement is put in place;
- the introduction of a separate microgeneration obligation.

While measures to increase competition would be consistent with the structure of the energy markets, the reality remains that the costs of extending these structures to microgenerators could be prohibitive. In which case, as we have already mentioned, TV Energy would suggest that the most cost-effective means of securing continued value for investors may be to require suppliers to purchase the generation for a fixed feed-in tariff.

5. Installation

Q.17 – How could Building Regulations be used to encourage cost effective microgeneration technologies?

The Building Regulations need to dovetail with planning policy, and as more authorities require 10% or more of on-site energy generation from renewable energy sources, the Building Regulations should be amended to reflect this where possible.

The real area where building control could have an impact is when work is undertaken on existing properties and this could tie into re-wiring of houses, re-roofing work or replacement of heating systems, which are good opportunities to consider the installation of microgeneration technologies. This requires staff and training, see comments below in Q.18

Q.18 – How could Government help the construction industry and the building control bodies to become better informed about the applications of microgeneration systems, satisfactory design, installation operation and maintenance practice, and the benefits to be obtained?

The real issue here is to provide adequate funding for the training and employment of building control officers so that compliance can be properly monitored and enforced. The majority of Building Control Departments within the TV Energy region feel understaffed, under funded and therefore ill-equipped to deal with current workloads without burdening additional work upon them. This is a much deeper problem than just the issues facing an expansion in microgeneration installation, and one that Government needs to face up to.

Q.19 – Are there any barriers in the planning system that are hindering the development of microgeneration?

One of the key hindrances is a lack of knowledge on the part of officers and councillors. A classic example is raised in paragraph 5.8 of this document where the assumption is made that, “As a general rule, solar panels and photovoltaic cells can already be installed on roofs of individual houses as developments...provided they do not project significantly above the roof”. This is not the case in practice, as many planning authorities continue to require all panels to be flush with the roof. Such a simple issue highlights the amount of work that is still required to clarify the position with respect to planning regulations.

Policy is changing for the better, but it is not filtering down to officers (particularly development control teams) and thence to councillors. There is still a lack of knowledge of the impacts of the full range of microgeneration technologies such that, until officers and councillors have more experience, gained perhaps by visiting installations, they will continue to tend to err on the side of caution, to the detriment of increasing the number of microgeneration installations.

The same goes for the more proactive planning authorities who are stipulating a percentage on-site requirement for renewable energy generation. This is laudable, but many are unclear as to how to apply it, or how to judge a developer’s response adequately. More training is urgently required.

Q.20 – If the Code for Sustainable Buildings is to be helpful in terms of promoting microgeneration, what sort of requirements might it include?

A percentage of associated building carbon emissions linked to energy use to be offset through the incorporation of on-site microgeneration.

Q.21 – What more should the Government be doing through the management of its own estates to promote microgeneration?

TV Energy advocates the adoption of two targets; firstly that all new-build within the Government Estate will incorporate a minimum 10% on-site energy demand from renewable energy sources. This should come into force immediately. Secondly, that all other buildings will incorporate some form of microgeneration, providing a percentage (to be decided) of energy demand by 2010.

6. Low Carbon Buildings Programme

Q.22 – Will a six year programme provide the confidence that industry requires for future investment decisions?

In short, our answer to this question is no, but this depends on the level of funding and the focus of the scheme, which are not yet clear enough for comment. Our feeling is that funding for this scheme will need to be very high to produce a real impact over this time frame and that it will be regulatory changes, not this programme, that will encourage the step change desired.

Given the widespread promotion of condensing-boiler technology, which is only now becoming a statutory requirement, it might make sense to have a scheme (for heat generation at least) operating takes account of these new boilers, which will need replacing in around 15 years' time (reflecting their expected effective lifetime). This would certainly allow for synergies to develop within the micro heat generation industry.

TV Energy advocates a guaranteed funding stream being in place for at least six years, preferably ten, and that this then tapers down gradually at different rates for each technology. We believe only this sort of commitment is going to inspire confidence in an industry to invest to the levels required for microgeneration to have the desired impact, if we assume that this scheme will deliver that at all.

Q.23 – Are the objectives of the programme an appropriate focus for the new programme and will they contribute to developing and moving the micro-renewable sector forward?

The objectives are commendable, but give cause for concern in a number of areas. It is also highly difficult to provide comment given that we have no indication of funding levels.

On the subject of requiring statements on carbon savings attached to energy efficiency measures, questions remain as to who will undertake the energy efficiency work for the smallest SMEs and community buildings. This is not currently available at no/low cost. What will be the quality of the reports stating the energy efficiency measures proposed and will these be checked?

We find in our day-to-day work that whilst it is logical to tackle energy use first, it is often only considered afterwards, once a company, community group, individual etc. has become aware of energy use issues through their own generation activity. Only then do reduction of use and efficiency measures tend to be embraced. Whilst not consistent with conventional thinking, this is a reality that we have observed. Without the funding to back up this energy efficiency component, it will carry little impact other than to make the scheme more onerous to apply for and administer. The sentiment is laudable, but perhaps only serves to muddy the waters.

Reduction of costs is also laudable and achievable for some technologies, but not all. More advanced technologies, such as solar thermal, may not possess much further scope for price reductions, whereas PV clearly does. Equally, the equipment cost may not be the problem but the cost of the installers' time certainly is. The economic value of microgeneration will increase if fuel prices continue to rise and the issue of costs will then decline, so this objective may not need to be so strongly stated. Cost is still a major impediment to the uptake of microgeneration, but those arguing the case for microgeneration need to treat issues of cost with caution.

The word 'innovative' needs to be dropped. The aim of this strategy, as we understand and support it, is to make microgeneration technologies mainstream, and not to continue to make up spurious reasons for why each new project is 'innovative'. It is time that we moved away from the desire to invent something new every time, and proceed with increasing the contribution made by the excellent proven technologies that already exist. By all means let us reward the few innovative projects that occur, but we should not make it an essential criterion. It is time to move to deployment and away from demonstration!

If funding is constrained, a case could be made for focusing funding away from domestic systems and onto community-based installations under Stream 1, particularly at the outset of the project. This allows for more members of the public to see and experience microgeneration within their community, and if microgeneration options are then properly marketed (as is suggested will happen, earlier in the consultation document), the connection will be made in consumers' minds as to the potential to install these technologies domestically. It could also be argued that such a focus would represent a more equitable use of public funds.

We would further suggest that if funding is particularly tight, then the community focus is the only option and that large-scale projects are dropped either immediately or after a year or two. If planning requirements change as expected, large developers will have to install these technologies anyway, and they will all be operating on a level playing field (and most volume house builders have trialled all the relevant technologies already): why subsidise big business? Additional costs will either be passed onto end-users, or be subsumed into overall project costs through good quality design.

Smaller projects, retrofit and community-based, have more of a struggle to justify the costs of microgeneration technologies, and often projects do not fall under the auspices of the planning process which can require the incorporation of such technologies. In order truly to get the public to engage with this shift in energy production, high levels of support will be required over a period of several years.

Q.24 – Views are invited on the impact of a “technology blind” approach on the selection of micro-renewable technologies.

With reference to the first objective of the scheme , ‘To support a more holistic approach to reducing carbon emissions from buildings,..’, “technology blind” appears to make sense, but we ask whether this will deliver a wide ranging microgeneration industry, or simply lead to a focus on one or two technologies. If the scheme is to be truly “technology blind”, will it be set up to allow those technologies that gain most favour to receive the bulk of the support, or will there be thresholds of support as there appears to be under Clear Skies (witness the presumption for wind and a lack of funding for solar thermal in the South East/South West in the final two ‘community’ funding rounds)?

Q.25 – Are there any micro-renewable energy technologies for generating either heat or electricity that should be considered in addition to those mentioned?

The list appears to be wide ranging. We would include water and air source heat pumps, and allow for open loop systems as well as close loop if not already included. There might also be a case for heat recovery units.

Q.26 – Would the same fixed level of grant for all technologies have an impact on selection of micro-renewable technologies or should there be a variable rate for different technologies?

We favour variable rates, see Q.24. If this approach is taken, surely it is a contradiction to the “technology blind” approach, however.

Q.27 – If so, what should this rate be based on – potential electricity or heat generation over the lifetime of the product, potential to reduce carbon emissions, nearness to market?

On Page 6 of this consultation paper it is stated that, ‘The proposals relate to measures aimed at stimulating the demand for, and facilitating the supply of, microgeneration technologies in order to help the market become self-sustaining.’ Given that a raft of technologies have been identified to assist the UK in delivering the wider energy policy goals outlined on Page 7, then the answer to this question is surely that ‘nearness to market’ is the over-riding criteria, if we accept, as we do, that all the technologies outlined for support have role to play.

Q.28 – Views are invited on alternative support mechanisms to capital grants for supporting the uptake of micro-renewable technologies and the advantages that these alternatives would have over a capital grant scheme.

If provision were in place for greater captured value of the output from microgeneration (be it electricity or heat), then capital grants may not be necessary. Whilst not the sole reason for the rapid uptake of domestic PV in Germany, the ability to receive an enhanced tariff for the power produced certainly influenced the impressive uptake of that particular technology. These tariffs were, we believe, available to all microgenerators of power and it has been suggested, also led to the stimulation of the micro-hydro industry

It is currently still very difficult for the microgenerator to receive reasonable commercial terms for the export of power (this is an area we still struggle with when putting together small renewable energy projects, despite having in-house expertise on the subject) and no such system exists for gaining value from the production of heat (although we strongly urge the Government to develop one). We would like to see these issues positively addressed as this could greatly facilitate the uptake of microgeneration technologies, although someone is still going to have to pay somewhere along the line, so whether this is better value than capital grants is debatable.

See Q.15 and Q.16 for more on this subject.

Q.29 – How should Stream 1 be designed to ensure energy efficiency is addressed effectively?

As mentioned earlier in our response to Q.23 we consider this to be a difficult task and, whilst applauding the thinking behind the approach, we question its usefulness.

The only way we can see to include this is to include a standard pro-forma questionnaire with an information pamphlet so that householders (who could use an EST Home Energy Questionnaire) and community groups can undertake a simple self-audit and then state which issues, subject to their audit, they are going to tackle and how. However, we question the usefulness of the information provided in this manner.

To ensure compliance there will need to be clearly-stated options for the inspection of a randomly-selected percentage of projects, with the option to claw back monies distributed if measures have not been installed. We perceive this to be costly and burdensome to the administrators, although more follow-up than currently occurs under Clear Skies and the PV grants scheme does need to be considered.

Alternatively, our suggestions in Q.12 the merger of the Carbon Trust and the EST, along with sufficient funding, would allow for a more personalised, specific type of auditing and follow-up action. Again this is costly, but should deliver better results.

Q.30 – What other measures should be included under Stream 2 to ensure that energy efficiency is addressed effectively?

The need to address the issues of energy efficiency and microgeneration is becoming increasingly common for large developers and there is probably adequate provision for them to target energy efficiency effectively, in the short term, until such a time as the regulations are further tightened. Having said that, the schemes that are available should undergo a thorough independent review to establish whether they are of use to developers, as our experience with Enhanced Capital allowances and Energy Efficiency Loans is that companies do not find them particularly attractive for a variety of reasons which differ on a case-by-case basis.

It is also worth pointing out that in paragraph 6.19, there is reference to local authorities providing grants for energy-efficiency measures to Stream 2 applicants. Working closely with local authorities across four counties in the South East, we know of none who would offer such a service, or are likely to in the future and we advise you to discount this option if you are thinking there will be any assistance from this quarter.

Q.31 – Views are invited on whether the Code for Sustainable Buildings is the most appropriate standard for buildings supported by this programme?

There is still a lack of detail as to what exactly will be included within the Code, how and who will operate and apply it, so it is not possible to comment at this time.

Q.32 – Would earmarking funding for individual and community projects in the way proposed enable a smooth transition between the existing schemes and the new programme?

Earmarking funding in this way would certainly allow for a smooth transition and we would urge you to ‘ earmark ’ at least 50% of available funds for this category for the reasons already outlined previously. This should include provision for feasibility funding, which we discuss further in Q.36.

Q.33 – What criteria or restrictions should be used for selecting individual and community projects?

Firstly, innovation should not be a key factor, if a factor at all. We are largely beyond that now and we need to be mainstreaming good/best practice and assisting building an industry, as stated at the beginning of the consultation document.

The ‘not-for-profit’ criteria operated under Clear Skies has worked well, although this should perhaps have a turnover caveat inserted, so that larger organisations of this type can only benefit once, nationally, and only to a certain level of funding.

One of the weaknesses of Clear Skies, however, has been the preclusion of SMEs (and this was particularly felt for micro-hydro schemes, whereby in the South East, a lot of mills that host these organisations could not receive support to develop their in-situ resource). In this instance, the PV grant scheme was far better and we would suggest that this scheme adopts the PV grant scheme position of offering SMEs funding. This is a large sector that struggles to engage with microgeneration, but is one with a large part to play.

On the whole, both the PV grants scheme and Clear Skies have worked well, and the restrictions/criteria of both should be optimally merged for this forthcoming scheme. However, please consult on the mechanisms before, and six months after, with those utilising the programme to fine tune application and delivery processes.

Q.34 – Is this focus on larger scale projects likely to contribute towards a change in the market?

We do not believe that the focus on large projects will bring about an overall change in the market. We do not agree that it is appropriate to have an option to back large projects, but these should certainly not be the dominant focus of the scheme as new build is only a fraction of the total building stock within the UK as a whole. To achieve the scales required to support a successful and vibrant microgeneration industry, the retrofit market must also develop and the public must be able to see and experience retrofit installations in order that become familiar and accepting of the technologies, and ultimately likely to install them on their own homes.

We understand that the aim of funding larger projects is to drive costs downwards, however, we feel a great number of these projects will need to be funded over the course of several years to even begin to achieve the economies of scale desired. We question if this approach is even necessary, given that fuel prices are rising (thus improving the value of microgeneration) and planning regulation will require the fitting of these technologies on new development anyway?

We fear such an approach would lead to a dash by developers to secure a ‘flagship project’ but no further commitment. Most developers have already undertaken developments incorporating microgeneration technology and have an awareness of the issues. They will install, it if legally required, under a level playing field and will then pass the costs onto the public/client in a manner emphasising the product as cost saving/modern/‘green’ etc. The ability to access grant will not lead to a step change until regulation is in place.

In summary, this grant needs to continue to have a strong focus at the community and retrofit level, in order to enhance public awareness regarding renewable energy, the impact it has on climate change and the role that the individual/community group can undertake in addressing these issues. This, along with better regulation for new build projects, should contribute to a change in the market.

Q.35 – Further suggestions of the kind of developments that might be suitable for support are invited?

The examples included here are fine (although the first example should not be so specific about when PV will generate, as it is a year round technology and not just limited to the summer). However, as per our comments in Q.34, we would like to see a more retrofit and community focus, such as the fitting of a biomass boiler when a school/village hall comes to replace its heating system, or the installation of a PV/micro-wind turbine at a cricket club to counter rising electricity bills.

Q.36 – Views are invited on other factors affecting the development of low carbon buildings and specifically the uptake of renewable energy technologies, particularly factors that are not already highlighted elsewhere in this consultation document.

The only additional issue we raise here is the availability of feasibility funding. This is essential for some, but not all the technologies that are suggested for support.

We would like to see the inclusion of feasibility funding for biomass and micro-hydro schemes as these often require the technical input of a mechanical/civil engineer before a project can even be declared viable.

The funding needs to be tightly controlled to prevent projects of little/no worth coming through and pre-feasibility studies normally occur with these types of project to deal with this issue (normally undertaken by installers at a very limited cost or for free by CRI LSTs). However, once a project is identified, several thousand pounds may be needed to work it up into a viable proposition. This is particularly the case for hydro and to a lesser extent for biomass. This represents a significant risk to small scheme developers, particularly community/domestic based installations and actually prevents a lot of potential projects from coming through.

7. Physical Infrastructure

Q.37 – What set of metering arrangements would allow consumers to exploit the full range of the potential benefits of microgeneration?

Metering arrangements need to ensure access to the markets for excess generation at an acceptable cost. Metering is also the only way in which end users can assess their level of consumption. It would therefore be beneficial if metering systems were easier to understand, more visible and perhaps linked with the cost – for example rather than show consumption only in terms of energy units, a monetary value should also be displayed. This would help consumers focus on the cost of energy and therefore on the benefits of microgeneration and energy efficient measures.

In addition, in the longer term, smarter metering systems could play a valuable role. These could include net metering systems and those that can respond to price signals by reducing the consumption of certain household appliances. Much was talked of the potential of such systems when the new electricity market was introduced and how they would enable users to be able to participate in the market, however, no development has occurred in this direction.

8. Local Authorities and Regional Bodies

Q. 39 – What specific roles should local authorities, Regional Development Agencies, Regional Housing Boards and Housing Associations play in promoting microgeneration?

The roles identified broadly agree with our perspective of the roles these authorities/agencies should play.

The role highlighted for the RDAs is very important and should not just be left to them, but should be developed in partnership with local authorities and trade associations, and, perhaps, overseen by the Regional Government Office, who have a more holistic approach on this issue (some RDAs have too strong a focus on economic development, which can be an impediment). Equally, all development undertaken for and on behalf of these groupings should have microgeneration included as a requirement, rather than a desire/wish as is often the case.

For any of the above to occur, however, there must be adequate funding available from central government to tackle the diverse set of tasks identified.

Q.40 – What steps should Government take to assist these bodies in taking this role?

As mentioned above in Q.39, adequate funding is essential, specifically in developing the correct skills base.

Coherent, easy to use and understand marketing information for the various bodies would be useful and prevent the need to continually re-invent the wheel.

Local authorities could use performance indicators on this subject. It would focus their attention when budgetary issues surface, as it would put a greater priority on tackling microgeneration issues. Some suggestions would be to link indicators to –

- CO₂ reduction across council building stock through the incorporation of microgeneration;
- kWh of heat/power produced by council owned/backed initiatives in microgeneration;

- % of council microgeneration production as total of energy use across all activities;
- Number of heating systems revamped per annum to include microgeneration capabilities; and
- Square metres of solar collectors/PV panels installed in geographic area.

Summary

Microgeneration has a huge role to play in increasing the sustainability of energy supply in the UK. At present this potential is largely untapped. TV Energy welcomes the interest government is showing in developing this sector and hopes that this consultation leads to the development and timely implementation of a robust and forward looking strategy.