

<b>Impact Assessment for the Microgeneration Strategy</b> URN10D/899 Lead department or agency: DECC	<b>Impact Assessment (IA)</b>
	<b>IA No:</b> DECC0046
	<b>Date:</b> 25/11/2010
	<b>Stage:</b> Consultation
	<b>Source of intervention:</b> Domestic
	<b>Type of measure:</b> Other (not regulation)
	<b>Contact for enquiries:</b> Lily Tang, Birgit Wosnitza

## Summary: Intervention and Options

### What is the problem under consideration? Why is government intervention necessary?

Sub-50kWe electricity Microgeneration currently receives subsidy support through the Feed-in Tariffs (FITs) scheme. Renewable heat generation (including sub-300kWth) is due to receive subsidy support via the forthcoming Renewable Heat Incentive (RHI).

While the RHI/FITs can help to address financial barriers to deployment, they do not directly (or completely) tackle non-financial barriers to uptake e.g. supply-chain barriers and lack of consumer information and advice. Government therefore wishes to consult on proposals for a Microgeneration Strategy which, through industry adopting voluntary actions, will tackle key non-financial barriers to greater deployment of Microgeneration. Removing (or reducing) these barriers will be important for supporting uptake under the RHI and FITs and thus aid the delivery of our renewable energy and carbon reduction targets. The Strategy will attempt to address market failure for example in the following areas: insufficient market for quality assurance, undersupplied public goods (such as technology innovation and training / education) and information asymmetry.

### What are the policy objectives and the intended effects?

The policy objective is to overcome non-financial barriers to Microgeneration as raised in consultation with a cross section of the industry, including those that result from market failure (e.g. insufficient provision of skills training and lack of information provision), thus ensuring that expected Microgeneration uptake under the RHI and FITs is achievable.

Key benefits of Microgeneration are: greater consumer engagement (including greater energy awareness, potentially leading to lower energy demand and load-shifting); public acceptance of alternative ways of delivering energy needs; diversified energy mix; reduced dependence on (imported) fossil fuels; greater energy security at the small scale; business and employment opportunities (the higher costs of small scale installations partly being explained by greater labour intensity) in developing and deploying renewable energy technologies; avoidance of/reductions in losses through transmission/distribution networks through making better use of such infrastructure and realising the benefits of using electricity at the point that it is generated; innovation benefits; and potential reductions in technology costs as a result of roll-out.

### What policy options have been considered? Please justify preferred option (further details in Evidence Base)

- Implement a Microgeneration Strategy (containing Government proposals for voluntary industry action to address key non-financial barriers to greater deployment of Microgeneration technologies)

Our preferred option is to implement a Microgeneration Strategy so as to ensure that the projected Microgeneration uptake under FITs and RHI, and their contribution to delivering the renewable energy target and carbon savings, is achievable. The do-nothing option (i.e. maintaining the status quo) would risk leaving certain non-financial barriers in place and therefore potentially constrain the level of uptake that is feasible/expected under RHI and FITs.

### When will the policy be reviewed to establish its impact and the extent to which the policy objectives have been achieved?

Progress of the Strategy will be monitored through a Government-Industry Contact Group

### Are there arrangements in place that will allow a systematic collection of monitoring information for future policy review?

Yes

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**SELECT SIGNATORY Sign-off** For consultation stage Impact Assessments:

*I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.*

Signed by the responsible SELECT SIGNATORY:..... Date:.....

Summary: Analysis and Evidence

Policy Option

Description: **Implement the Microgeneration Strategy**

Price Base Year	PV Base Year	Time Period Years	Net Benefit (Present Value (PV)) (£m)		
			Low: n/a	High: n/a	Best Estimate: n/a

COSTS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	n/a	n/a	n/a
High	n/a	n/a	n/a
Best Estimate	n/a		

**Description and scale of key monetised costs by 'main affected groups'**

- There is insufficient evidence to quantify or monetise the costs of the Microgeneration Strategy. Any information that is obtained through the consultation process can be incorporated in future impact assessment(s).

**Other key non-monetised costs by 'main affected groups'**

- No significant costs are expected to fall on the public purse. However Government will work together with industry to help facilitate implementation of the Strategy and so some level of staffing cost may be incurred. We do not have sufficient evidence to quantify these potential costs compared with business-as-usual staffing costs.
- There is a potential risk that implementing the Microgeneration Strategy could encourage greater uptake than we have projected under the RHI and FITs, which would drive up subsidy costs of those schemes. We are unable to quantify the size of this risk, however both schemes will be regularly reviewed.
- Given that the proposals in the Microgeneration Strategy involve action by industry, it is expected that industry may incur costs as a result of introducing the Strategy, and that at least some of these costs would be expected to be passed on to consumers. We do not have sufficient information/evidence to be able to quantify the expected costs to industry/end consumers, and given that the proposals are voluntary in nature, this also adds to the uncertainty of potential size of costs.

BENEFITS (£m)	Total Transition (Constant Price) Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	n/a	n/a	n/a
High	n/a	n/a	n/a
Best Estimate	n/a		

**Description and scale of key monetised benefits by 'main affected groups'**

- There is insufficient evidence to quantify or monetise the benefits of the Microgeneration Strategy. Any information that is obtained through the consultation process can be incorporated in future impact assessment(s).

### Other key non-monetised benefits by 'main affected groups'

- Key benefits that will arise from the Microgeneration Strategy include:
  - Better coordination across the disparate Microgeneration sector
  - Greater certainty for industry and consumers e.g. as a result of better information sharing/provision and a more cohesive approach to Microgeneration deployment
  - Benefits of Government leadership
- Whilst industry may be expected to incur costs as a result of the Microgeneration Strategy, there should also be benefits to industry as demand for (and deployment of) Microgeneration increases over time.
- Implementing the strategy will support deployment of Microgeneration under the RHI and FITs and thus help to deliver the wider benefits associated with deployment of Microgeneration, such as behavioural change and greater consumer engagement.

### Key assumptions/sensitivities/risks

Discount rate (%)

n/a

The RHI and FITs are designed primarily to address financial barriers to uptake of Microgeneration. Therefore these schemes will not in themselves overcome some of the non-financial barriers to greater uptake (e.g. lack of skilled labour or insufficient provision of consumer information and advice). The proposed Microgeneration Strategy aims to specifically address the non-financial barriers to Microgeneration deployment and to support the level of feasible/expected uptake under RHI and FITs.

However, the RHI tariffs in particular do allow for some non-financial barriers to uptake, and so there is a risk that should the Strategy overlap with the way the RHI tariffs are set (e.g. if RHI tariffs partly compensate for lack of familiarity/trust in the heat technologies, but the Strategy also attempts to tackle some of these barriers through better information provision and ensuring quality of products), then the Strategy could lead to higher than expected uptake (and hence costs), and/or RHI tariffs could overcompensate investors for non-financial barriers. On the other hand, greater than expected uptake would mean higher carbon saving benefits.

Given that 1) the Strategy attempts to cover non-financial barriers that are assumed not to be sufficiently addressed by the RHI/FITs (e.g. supply chain barriers – from R&D through to training); and 2) the impacts of the Strategy in terms of reducing barriers to uptake will take time to materialise, this risk should be minimised. In addition, both RHI and FITs will be regularly reviewed to monitor uptake and costs (and ensure that uptake/costs are not significantly higher than expected and ensure that investors do not unduly receive excess rents) .

<b>Impact on admin burden (AB) (£m):</b>		<b>Impact on policy cost savings (£m):</b>		<b>In scope</b>
<b>New AB:</b>	<b>AB savings:</b>	<b>Net:</b>	<b>Policy cost savings:</b>	<b>No</b>

## Enforcement, Implementation and Wider Impacts

What is the geographic coverage of the policy/option?	England				
From what date will the policy be implemented?	Spring 2011				
Which organisation(s) will enforce the policy?	DECC				
What is the annual change in enforcement cost (£m)?	n/a				
Does enforcement comply with Hampton principles?	n/a				
Does implementation go beyond minimum EU requirements?	Yes				
What is the CO <sub>2</sub> equivalent change in greenhouse gas emissions? (Million tonnes CO <sub>2</sub> equivalent)	<b>Traded:</b> n/a	<b>Non-traded:</b> n/a			
Does the proposal have an impact on competition?	Yes				
What proportion (%) of Total PV costs/benefits is directly attributable to primary legislation, if applicable?	<b>Costs:</b> n/a		<b>Benefits:</b> n/a		
Annual cost (£m) per organisation (excl. Transition) (Constant Price)	<b>Micro</b> unknown	<b>&lt; 20</b> unknown	<b>Small</b> unknown	<b>Medium</b> unknown	<b>Large</b> unknown

Are any of these organisations exempt?	yes	yes	yes	yes	yes
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## Specific Impact Tests: Checklist

Set out in the table below where information on any SITs undertaken as part of the analysis of the policy options can be found in the evidence base. For guidance on how to complete each test, double-click on the link for the guidance provided by the relevant department.

Please note this checklist is not intended to list each and every statutory consideration that departments should take into account when deciding which policy option to follow. It is the responsibility of departments to make sure that their duties are complied with.

Does your policy option/proposal have an impact on...?	Impact	Page ref within IA
<b>Statutory equality duties</b> <sup>1</sup> <a href="#">Statutory Equality Duties Impact Test guidance</a>	No	n/a
<b>Economic impacts</b>		
Competition <a href="#">Competition Assessment Impact Test guidance</a>	Yes	11
Small firms <a href="#">Small Firms Impact Test guidance</a>	Yes	11-12
<b>Environmental impacts</b>		
Greenhouse gas assessment <a href="#">Greenhouse Gas Assessment Impact Test guidance</a>	No	n/a
Wider environmental issues <a href="#">Wider Environmental Issues Impact Test guidance</a>	No	n/a
<b>Social impacts</b>		
Health and well-being <a href="#">Health and Well-being Impact Test guidance</a>	No	n/a
Human rights <a href="#">Human Rights Impact Test guidance</a>	No	n/a
Justice system <a href="#">Justice Impact Test guidance</a>	No	n/a
Rural proofing <a href="#">Rural Proofing Impact Test guidance</a>	No	n/a
<b>Sustainable development</b> <a href="#">Sustainable Development Impact Test guidance</a>	No	n/a

If any impacts as listed in the table arise, then this will be primarily as a result of the RHI and FITs and will therefore be set out in the Impact Assessments that accompany those schemes.

<sup>1</sup> Race, disability and gender Impact assessments are statutory requirements for relevant policies. Equality statutory requirements will be expanded 2011, once the Equality Bill comes into force. Statutory equality duties part of the Equality Bill apply to GB only. The Toolkit provides advice on statutory equality duties for public authorities with a remit in Northern Ireland.

## Evidence Base (for summary sheets) – Notes

Use this space to set out the relevant references, evidence, analysis and detailed narrative from which you have generated your policy options or proposal. Please fill in **References** section.

### References

Include the links to relevant legislation and publications, such as public impact assessment of earlier

No.	Legislation or publication
1	<a href="http://www.decc.gov.uk/en/content/cms/consultations/elec_financial/elec_financial.aspx">http://www.decc.gov.uk/en/content/cms/consultations/elec_financial/elec_financial.aspx</a>
2	<a href="http://decc.gov.uk/en/content/cms/consultations/rhi/rhi.aspx">http://decc.gov.uk/en/content/cms/consultations/rhi/rhi.aspx</a>
3	<a href="http://www.decc.gov.uk/assets/decc/Consultations/microgen-strategy/668-energy-generating-democracy-microgen.pdf">http://www.decc.gov.uk/assets/decc/Consultations/microgen-strategy/668-energy-generating-democracy-microgen.pdf</a>
4	<a href="http://www.decc.gov.uk/assets/decc/what%20we%20do/uk%20energy%20supply/energy%20mix/renewable%20energy/explained/microgen/file27575.pdf">http://www.decc.gov.uk/assets/decc/what%20we%20do/uk%20energy%20supply/energy%20mix/renewable%20energy/explained/microgen/file27575.pdf</a>

+ Add another row

stages (e.g. Consultation, Final, Enactment).

### Evidence Base

Ensure that the information in this section provides clear evidence of the information provided in the summary pages of this form (recommended maximum of 30 pages). Complete the **Annual profile of monetised costs and benefits** (transition and recurring) below over the life of the preferred policy (use the spreadsheet attached if the period is longer than 10 years).

The spreadsheet also contains an emission changes table that you will need to fill in if your measure has an impact on greenhouse gas emissions.

#### Annual profile of monetised costs and benefits\* - (£m) constant prices

	Y <sub>0</sub>	Y <sub>1</sub>	Y <sub>2</sub>	Y <sub>3</sub>	Y <sub>4</sub>	Y <sub>5</sub>	Y <sub>6</sub>	Y <sub>7</sub>	Y <sub>8</sub>	Y <sub>9</sub>
<b>Transition costs</b>										
<b>Annual recurring cost</b>										
<b>Total annual costs</b>										
<b>Transition benefits</b>										
<b>Annual recurring benefits</b>										
<b>Total annual benefits</b>										

\* For non-monetised benefits please see summary pages and main evidence base section

# Evidence Base (for summary sheets)

## **Impact Assessment accompanying the Consultation on the Microgeneration Strategy**

### **Background**

- 1) The Coalition Government's vision of the new energy economy has a far greater role for a wide range of distributed generation technologies. There will be a role for small-scale energy producers in homes, schools, offices and factories around the country to complement the substantial new investments needed in large-scale CCS, nuclear and renewables such as offshore wind. A new supply of locally-produced heat and power can help make us all more self-reliant in our energy needs.
- 2) While it is recognised that smaller scale technologies are less cost-effective (in £/MWh terms) than larger scale technologies, smaller scale technologies (including Microgeneration) still contribute to meeting our renewable energy and carbon reduction targets and bring wider benefits of fostering behavioural change, diversifying the energy mix, driving technological innovation and realising the benefits of generating energy at the point of use (e.g. reduced transmission and distribution losses in the case of electricity).
- 3) To overcome financial barriers to more widespread uptake of renewable technologies, Government has introduced a Feed-In Tariffs (FITs) scheme and is proposing a Renewable Heat Incentive (RHI) scheme. These financial incentive schemes, which focus on incentivising small scale low carbon electricity (sub-5MW renewable electricity and domestic scale micro-CHP) and renewable heat, respectively, include financial support for Microgeneration (less than 50kWe for electricity and less than 300kWth for heat).
- 4) As well as aiming to address financial barriers to uptake, the RHI to some extent will also look to address some non-financial barriers such as hassle costs. However there are likely to remain other key non-financial barriers that could deter investment<sup>2</sup>.
- 5) The proposed Microgeneration Strategy covered in this Impact Assessment aims to specifically address non-financial barriers and hence support the deployment of Microgeneration under the RHI and FITs. The Strategy aims to cover sub-50kWe installations for electricity and sub-300kWth installations for heat (as per the definition of Microgeneration in the Green Energy Act 2009 - see para 8 below).
- 6) In 2006<sup>3</sup> HM Government published its first Microgeneration Strategy, which aimed to facilitate greater deployment of Microgeneration. Key achievements included:
  - Introduction of permitted development for domestic Microgeneration technologies.
  - The Microgeneration certification scheme (MCS) was launched as part of that strategy.
  - The big six energy suppliers, as well as some of the smaller ones started to offer export tariffs for excess electricity sold back to the grid.
  - Ofgem, EST and energy supplier committed to providing impartial advice to consumers on obtaining the best financial rewards
  - Easier access to Renewable Obligation Certificates (ROCs)
- 7) The Microgeneration Strategy that DECC proposes now aims to build on the progress made under the previous strategy. Some actions in the previous strategy did not go as far as they could. For example, there was a commitment to assess current consumer communications, but there was no commitment to developing a communications package. This proposed Microgeneration Strategy is

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<sup>2</sup> Evidence for the existence of barriers to uptake for heat technologies at all scales (both financial and non-financial) were set out in work by Enviro to inform analysis for the RHI. For further information, please see: "Enviros (2008), Barriers to Renewable Heat: Executive Summary" available at:

[www.decc.gov.uk/assets/decc/consultations/renewable%20energy%20strategy%20consultation/related%20documents/1\\_2009\\_0501125156\\_e\\_@@\\_1executivesummaryv10.pdf](http://www.decc.gov.uk/assets/decc/consultations/renewable%20energy%20strategy%20consultation/related%20documents/1_2009_0501125156_e_@@_1executivesummaryv10.pdf)

<sup>3</sup><http://www.decc.gov.uk/assets/decc/what%20do%20we%20do/uk%20energy%20supply/energy%20mix/renewable%20energy/explained/microgen/file27575.pdf>

now tackling that. In terms of technology, we have learnt from field trials and grant programmes that the supply chain needs to be developed. The skills work and route maps proposed in the new strategy will help to deliver that. The previous strategy did not look at maintenance of installations which is critical to encouraging greater uptake of Microgeneration. The MCS scheme was successfully introduced to ensure quality of products being installed. This now needs to be developed further to cater for a growing market and to address maintenance of installations.

- 8) In addition, the Green Energy (Definition and Promotion) Act 2009<sup>4</sup> came into force in January 2010. Central to the purposes of the Act are provisions to promote development, installation and usage of microgeneration. One such provision, at Section 2 of the 2009 Act, is a requirement for the Secretary of State to prepare and publish a strategy for the promotion of microgeneration in England. This impact assessment covers the proposed draft Microgeneration Strategy.

### **Problem under consideration**

- 9) The market for Microgeneration is currently under-developed and small in size. While FITs and RHI are able to provide financial incentives for small scale low carbon electricity and renewable heat generation (and to some extent in the case of RHI attempts to address some non-financial barriers e.g. hassle costs), some non-financial barriers to uptake will still remain and could constrain the levels of feasible/expected uptake under the RHI and FITs.
- 10) Action is therefore required to address key non-financial barriers such as insufficient consumer information and advice that may constrain the growth of Microgeneration.
- 11) Further enabling and encouraging Microgeneration will bring about associated benefits of consumer engagement and should foster behavioural change which is at the root of a step change in the UK's energy system.

### **Rationale for intervention**

- 12) FITs and RHI are not expected to be able to tackle all of the non-financial barriers to Microgeneration uptake e.g. lack of skilled labour or insufficient provision of consumer information and advice (although RHI does include compensation for overcoming some monetised non-financial barriers, such as additional time requirements for installing renewable heat technologies, and specifically for Microgeneration technologies the cost associated with space requirements and the hassle of taking fuel deliveries (for biomass boilers), and the digging up of gardens (for ground-source heat pumps).
- 13) Intervention is therefore needed to address any remaining non-financial barriers, so as to ensure that the market for Microgeneration technologies is sustainable over the longer-term and that the potential for uptake under RHI and FITs is realisable.
- 14) This Microgeneration Strategy aims to address a range of non-financial barriers that could prevent the microgeneration sector from realising its full potential. Key non-financial barriers were identified through an initial collaborative consultation process, where Government invited a cross-section of those with knowledge and expertise in the field to contribute to the development of the draft strategy<sup>5</sup>. Four working groups were set up to look at key areas of non-financial barriers. The process was facilitated by the Energy Efficiency Partnership for Homes and each working group comprised representatives from trade associations, consumer bodies and other representative groups (rather than individual companies). This initial consultation process identified that four key groups of non-financial barriers to Microgeneration uptake needed to be addressed:-
- **Quality:** to ensure consumers have confidence that equipment and installation is reliable and adheres to the highest standards
  - **Technology:** to examine how to improve products through more trialling of technologies new to the UK
  - **Skills:** to develop the microgeneration supply chain to ensure it is properly equipped with the right people to meet the expected rise in demand, as well as creating and sustaining jobs in the UK

<sup>4</sup> <http://www.legislation.gov.uk/ukpga/2009/19>

<sup>5</sup> <http://www.decc.gov.uk/assets/decc/Consultations/microgen-strategy/668-energy-generating-democracy-microgen.pdf>

- **Information:** to provide more accessible advice and information about microgeneration to residents, communities and small businesses.
- 15) To an extent, some barriers may exist as a result of market failure e.g. lack of consumer information and advice (because provision of information/advice by one particular company may benefit other companies within that sector). Likewise R&D into a particular technology may provide benefits to an entire technology sector, potentially discouraging any single company from investing in R&D.
- 16) Furthermore, the Microgeneration sector is a nascent industry and very disparate in nature (involving businesses that cover energy suppliers, retailers (e.g. supermarkets), manufacturers, distributors, installers and finance providers). The sector is hard to define and this makes it difficult for industry to take a focused and cohesive approach to resolving barriers to greater Microgeneration uptake.
- 17) The proposed Microgeneration Strategy aims to provide Government leadership that will build on the achievements of the previous Strategy and enable a coherent approach to addressing the identified barriers to uptake, with industry working together (and alongside Government) to address barriers as effectively as possible to the benefit of the Microgeneration sector as a whole. Reducing the extent of non-financial barriers in the above key areas will in turn be important for supporting Microgeneration uptake under the RHI and FITs, and help deliver the associated benefits (e.g. of greater consumer engagement and potential behavioural change).

### **Policy objective**

- 18) The policy objective is to address the above identified non-financial barriers in order to ensure a more ready supply chain and greater consumer confidence in taking up Microgeneration technologies. This in turn will support the growth of Microgeneration uptake under the RHI and FITs. The renewable financial incentives schemes (RHI/FITs) are not expected on their own to be able to fully address such barriers.

### **Description of options considered**

- 19) A single option is considered in this (consultation stage) Impact Assessment.
- **Implement a Microgeneration Strategy** (containing Government proposals for voluntary industry action to address key non-financial barriers to greater deployment of Microgeneration technologies)
- 20) Further options such as regulation were considered to be unnecessary given the nature of the barriers to uptake, which can be addressed through voluntary industry action, thus avoiding unnecessary regulatory burden.
- 21) Implementing the Microgeneration Strategy will involve undertaking actions to reduce barriers to uptake across the areas of Quality Assurance, Skills Development, Technology Innovation and Information and Advice. This therefore covers both demand side (e.g. information) barriers and supply side (e.g. skills) barriers.
- 22) The proposals in the Strategy have been developed following an initial consultation process (as explained in paragraph 14 above) where a cross-section of industry, working together with Government, set out the key barriers to further microgeneration uptake and proposed various actions that could address these barriers. On the basis of the information obtained at this initial consultation stage, Government is proposing a Microgeneration Strategy that will involve key voluntary actions by industry as set out in Table 1 below.
- 23) It should be noted that Table 1 sets out the key proposals of the Microgeneration Strategy, however it does not provide an exhaustive list of the proposals. Comprehensive information on the full set of proposals contained in the Microgeneration Strategy can be found in the Consultation Document accompanying this Impact Assessment.

Table 1: Key Microgeneration Strategy Proposals

<p><b>Quality Assurance</b></p>	<p>Strengthening the role of certification and standards in order to provide quality assurance. This can be done through making changes to the Microgeneration Certification Scheme (MCS) (an accreditation scheme that aims to ensure quality/reliability/durability/safety of products and installation). Actions include the following:</p> <ul style="list-style-type: none"> <li>• Market MCS much more widely (increase consumer awareness of the scheme)</li> <li>• MCS to provide a one stop shop for handling complaints</li> <li>• Develop appropriate product and service standards that guard against mis-selling and poor installation</li> <li>• Consider options for developing a scheme that insures against financial loss for consumers in respect of poor maintenance</li> <li>• Review of the Standard Assessment Procedure (SAP) to include specific elements related to microgeneration in the tool</li> </ul>
<p><b>Skills Development</b></p>	<p>Growth of the Microgeneration sector will require a sufficiently skilled workforce to ensure that the supply side can respond to an increase in expected demand as a result of FITs and the forthcoming RHI. Specific actions to ensure that skills needs are met include:</p> <ul style="list-style-type: none"> <li>• The National Skills Academy (NSA) to bring greater coordination to the skills agenda for the Microgeneration industry</li> <li>• Sector Skills Councils with an interest in Microgeneration to be involved in the work of the NSA and share information in order to provide a coherent package across all the relevant industry sectors</li> <li>• Ensure existing heating engineers, plumbers and electricians have a clear route to up skill in order to install microgeneration technologies</li> </ul>
<p><b>Technology Innovation</b></p>	<p>Technology development plays a vital role in the development of the overall market for Microgeneration. Actions to ensure continued technological innovation include:</p> <ul style="list-style-type: none"> <li>• Gather market intelligence on types and numbers of technologies being installed, working through existing networks so no commitment to Government funding</li> <li>• Greater integration between the Controls and Microgeneration sectors to enable Microgeneration products to be used in the most effective manner</li> <li>• Update route maps for each technology (to help focus actions on developing the supply chain – from R&amp;D through to product installation and maintenance/operation)</li> </ul>
<p><b>Information and Advice</b></p>	<p>Microgeneration technologies are still relatively unknown/not fully understood by the majority of potential consumers. Improving the dissemination of information and advice will support the development of the Microgeneration industry. Specific actions may include:</p> <ul style="list-style-type: none"> <li>• Whole house approach to advice and information, under the umbrella of the Green Deal</li> <li>• Use of case studies and learning from previous grant programmes to increase awareness and understanding of microgeneration technologies and their benefits and challenges</li> <li>• Raising the profile and credentials of MCS installers as the main source of technical advice on specific installations (e.g. through online directory)</li> <li>• Develop e.g. one page guides to system use. These information sheets should be made available online both through trade associations, installers and through the MCS scheme</li> <li>• Train installers so that they can provide onsite information and advice to customers</li> </ul>

**Costs and Benefits of implementing a Microgeneration Strategy**

Costs

- 24) Government will work together with industry, through a proposed Government-Industry Contact Group, to help facilitate implementation of the Strategy and so some level of staffing cost (over and above business-as-usual costs) may be incurred. Or conversely, there may be efficiency savings to Government as a result of working together with the Contact Group rather than a much wider range of stakeholders in a fragmented way. We do not have sufficient evidence to be able to quantify the extent of any costs (benefits) compared with business-as-usual staffing costs, however they are not expected to be significant.
- 25) There is a potential risk that implementing the Microgeneration Strategy could encourage greater uptake than we have projected under the RHI and FITs alone, which would drive up subsidy costs of the schemes. We are unable to quantify the size of this risk, however both schemes will be regularly

reviewed in order to manage risks around greater than expected uptake and overly generous tariff levels. In addition, the proposed Microgeneration strategy aims to address barriers to uptake that the RHI/FITs are not expected to be able to fully address, hence minimising the risk of 'double intervention'.

- 26) Given that the proposals in the Microgeneration Strategy involve action by industry, it is expected that industry may incur costs as a result of introducing some of the actions proposed in the Strategy (which they may ultimately pass on to their customers i.e. consumers). We do not have sufficient information/evidence to be able to quantify the expected costs to industry (or to end consumers), and given that the majority of the proposals are voluntary in nature, this also adds to the uncertainty of potential size of costs. However the types of cost that industry may be expected to incur are set out qualitatively below. Whether these costs materialise, and the level of any such costs, will depend on the extent to which industry responds to the proposals.

#### Government Industry Contact Group

- Industry is already in the process of setting up a Government Industry Contact Group (a proposal in the Strategy). Costs for this so far have been absorbed within the Energy Efficiency Partnership for Homes' budget. We do not have available evidence to quantify future costs of the group, however they are not expected to be significant.
- Any costs/benefits that result from a change to SAP will be covered in a separate Impact Assessment specific to the SAP policy.

#### Quality Assurance

- Development of MCS in line with proposals may involve additional costs to industry (the scheme operates on a self-financing basis without Government subsidies). For example, proposals to consider an insurance scheme for the sector to provide long term maintenance contracts and warranties could incur costs for the industry which might then be passed on to consumers.

#### Skills Development

- Costs to deliver the National Skills Academy business plan would be borne by industry. This will require negotiation between the Sector Skills Council and relevant industry sectors.

#### Technology Innovation

- Updating technology specific route maps could involve costs to industry.

#### Information and Advice

- Industry would need to incur spend in order to raise consumer awareness of technologies and benefits of a systems approach.
- Developing guides to system use would also involve costs to industry.

- 27) The Microgeneration Strategy will, alongside FITs, support the growth of electricity Microgeneration and hence could impact on costs relating to increased balancing requirements for the grid. We do not have evidence to quantify any such impact.

- 28) Specific proposals e.g. improving the operation of the MCS scheme or raising product/installation standards, whilst ensuring quality and reliability of products and installation to the consumer, could increase costs to industry and hence act as a barrier to entry for new entrants to the market (particularly smaller installers/manufacturers). This in turn could restrict competition within the market.

#### Benefits

- 29) The proposed Microgeneration Strategy is expected to yield benefits of Government leadership, better focus and communication across the disparate Microgeneration sector, greater information provision and more certainty of standards. This will support the growth of this nascent industry.

- 30) Whilst industry action (on a voluntary basis) as a result of the Microgeneration Strategy could lead to costs for industry, such action would also be expected to yield benefits for industry as a result of greater demand for microgeneration and an increase in the size of the microgeneration market. Indeed it is the prospect of these wider benefits to the sector as a whole that would lead industry to act on a voluntary basis. We do not have sufficient evidence to quantify the extent or value of these benefits, however the projected uptake of installations under FITs is provided in the FITs impact assessment at: [http://www.decc.gov.uk/en/content/cms/consultations/elec\\_financial/elec\\_financial.aspx](http://www.decc.gov.uk/en/content/cms/consultations/elec_financial/elec_financial.aspx) . This illustrates the extent to which the (electricity) microgeneration sector could grow over the coming decade.

- 31) The Microgeneration Strategy will, alongside RHI and FITs, support the growth of Microgeneration and thus help to deliver the wider benefits of: greater consumer engagement (including greater energy awareness, potentially leading to lower energy demand and load-shifting); public acceptance of alternative ways of delivering energy needs; diversifying the energy mix; reducing dependence on (imported) fossil fuels; greater energy security at the small scale; business and employment opportunities (the higher costs of small scale installations partly being explained by greater labour intensity) in developing and deploying renewable energy technologies; avoidance of/reductions in losses through transmission/distribution networks through making better use of such infrastructure and realising the benefits of using electricity at the point that it is generated; innovation benefits; and potential reductions in technology costs as a result of roll-out. A more developed market for microgeneration will also increase competition and allow better access for emerging technologies and new businesses.
- 32) The promotion of Microgeneration could improve competition in the energy markets by giving consumers greater choice over how they power and heat their homes.
- 33) It should be noted that the Microgeneration Strategy will cover England only, whereas FITs and the proposed RHI will cover England, Scotland and Wales. Therefore the benefits of the Strategy will be limited to the extent of its coverage<sup>6</sup>.

### **Risks and assumptions**

- 34) There is a potential risk that implementing the Microgeneration Strategy could encourage greater uptake than we have projected under the RHI and FITs alone, which would drive up subsidy costs of the schemes. We are unable to quantify the size of this risk, however both schemes will be regularly reviewed in order to manage risks around greater than expected uptake and overly generous tariff levels. In addition, the proposed Microgeneration strategy aims to address barriers to uptake that the RHI/FITs are not expected to be able to fully address, hence minimising the risk of 'double intervention'.

### **Impact on small firms**

- 35) On the one hand, small firms may benefit from the actions proposed in the Strategy e.g. the proposals should provide a more certain investment environment for small businesses to invest in Microgeneration technologies. On the other hand, changes to strengthen requirements under the MCS scheme could act as a barrier to entry for smaller installers and/or manufacturers.

### **Administrative burden**

- 36) The proposals contained in the proposed Microgeneration Strategy are voluntary in nature (i.e. no mandatory requirements for industry to act). However, if industry follow the recommendations in the Strategy e.g. participate in the Government-Industry Contact Group, then they may incur the associated costs.

### **Summary and preferred option**

- 37) The proposed Microgeneration Strategy aims to address non-financial barriers to greater uptake of Microgeneration technologies, through recommended voluntary action by industry, and hence support the development of the Microgeneration market that is expected to materialise as a result of the RHI and FITs.
- 38) The Green Energy Act 2009 requires Government to prepare and publish a strategy for the promotion of microgeneration in England.

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<sup>6</sup> The Devolved Administrations will be taking forward work on microgeneration in their respective regions. For example, Wales will be taking forward activities on information and skills and funding in Wales.

## Annexes

Annex 1 should be used to set out the Post Implementation Review Plan as detailed below. Further annexes may be added where the Specific Impact Tests yield information relevant to an overall understanding of policy options.

### Annex 1: Post Implementation Review (PIR) Plan

A PIR should be undertaken, usually three to five years after implementation of the policy, but exceptionally a longer period may be more appropriate. A PIR should examine the extent to which the implemented regulations have achieved their objectives, assess their costs and benefits and identify whether they are having any unintended consequences. Please set out the PIR Plan as detailed below. If there is no plan to do a PIR please provide reasons below.

<p><b>Basis of the review:</b> [The basis of the review could be statutory (forming part of the legislation), it could be to review existing policy or there could be a political commitment to review]; Progress of the Strategy will be monitored via a Government-Industry Contact Group.</p>
<p><b>Review objective:</b> [Is it intended as a proportionate check that regulation is operating as expected to tackle the problem of concern?; or as a wider exploration of the policy approach taken?; or as a link from policy objective to outcome?] The proposed Strategy does not involve any changes to regulation. Progress of the Strategy will be monitored to ensure that identified barriers to Microgeneration uptake are being addressed as intended.</p>
<p><b>Review approach and rationale:</b> [e.g. describe here the review approach (in-depth evaluation, scope review of monitoring data, scan of stakeholder views, etc.) and the rationale that made choosing such an approach] Current proposals are for industry to work with Government to take forward the proposals in the Strategy. Collaboration will be via a Government-Industry contact group.</p>
<p><b>Baseline:</b> [The current (baseline) position against which the change introduced by the legislation can be measured] The baseline will be the status quo (i.e. no new Microgeneration strategy).</p>
<p><b>Success criteria:</b> [Criteria showing achievement of the policy objectives as set out in the final impact assessment; criteria for modifying or replacing the policy if it does not achieve its objectives] Key information for measuring progress will include information on changes in the number of complaints from consumers who have installed microgeneration products, progress in training of installers etc. Information obtained from the RHI and FITs on development of the market will also help to assess progress (e.g. info on uptake rates, technology costs, ramping up of the supply chain, bottle-necks in the supply chain etc).</p>
<p><b>Monitoring information arrangements:</b> [Provide further details of the planned/existing arrangements in place that will allow a systematic collection systematic collection of monitoring information for future policy review]</p>
<p><b>Reasons for not planning a PIR:</b> [If there is no plan to do a PIR please provide reasons here] Progress of the Strategy will be monitored via a Government-Industry contact group.</p>