

**EXPLANATORY MEMORANDUM TO  
THE TOWN AND COUNTRY PLANNING (GENERAL PERMITTED  
DEVELOPMENT) (AMENDMENT) (ENGLAND) ORDER 2008**

**2008 No. 675**

**1.** This explanatory memorandum has been prepared by the Department for Communities and Local Government and is laid before Parliament by Command of Her Majesty.

This memorandum contains information for the Joint Committee on Statutory Instruments.

**2. Description**

2.1 This instrument adds a new Part 40 to Schedule 2 to the Town and Country Planning (General Permitted Development) Order 1995 (“GPDO”). It grants planning permission for the installation of specified types of microgeneration equipment on or within the curtilage of dwellinghouses or flats subject to certain criteria.

**3. Matters of special interest to the Joint Committee on Statutory Instruments**

3.1 None.

**4. Legislative Background**

4.1 This instrument is made under sections 59 and 60 of the Town and Country Planning Act 1990. These sections give the Secretary of State power to grant planning permission for categories of development specified in a “development order”. The GPDO is made under this power and grants planning permission for a range of predominantly minor development. This Instrument amends the current GPDO by adding a new Part 40 permitting the installation of specified domestic microgeneration equipment including solar PV and solar thermal equipment either attached to or within the curtilage of dwellinghouses (which have been defined to include a building which consists wholly of flats or which is used for the purposes of a dwellinghouse) provided they meet the specified criteria.

**5. Territorial Extent and Application**

5.1 This instrument applies to England.

**6. European Convention on Human Rights**

As the instrument is subject to negative resolution procedure and does not amend primary legislation, no statement is required.

## 7. Policy background

7.1 The purpose of this Order is to extend the existing permitted development rights householders have to alter or extend their home to include the installation of certain microgeneration technologies. Permitted development rights have existed for many years and remove the requirement to apply to the local authority for planning permission. By granting planning permission for generally minor and uncontentious types of development they reduce cost and delay to those wanting to carry out permitted work and avoid planning authorities having to consider a large number of applications that they would routinely grant approval to.

7.2 The technologies that have been considered as part of this work were solar panels, heat pumps, wind turbines, biomass, combined heat and power and hydro power. Although there are already significant permitted development rights for householders these were not developed with applicability to microgeneration in mind. As there is no express provision for microgeneration it can be unclear as to whether something is permitted development or not. Often it will be left to local authority interpretation, for example, some planning authorities allow solar panels on roofs if they take the view they do not materially alter the shape of the roof. Other planning authorities always require an application for planning permission.

7.3 The fee for applying for planning permission for householder development is, from April 2008, £150. This, once the additional costs of producing scaled drawings, the time and effort in filling in the application form and the potential 8 week waiting period have also been considered, can prove a disincentive to those that are considering installing microgeneration.

7.4 While the Government wants to encourage the widest possible take-up of microgeneration equipment by removing unnecessary regulatory barriers, it is concerned to ensure that the right levels of control are retained to protect the reasonable interests of neighbours, the environment and the wider community. Therefore, the original proposals that were the subject of public consultation sought to address the impacts on amenity of domestic microgeneration technologies, including those of visual appearance, and the implications of any potential nuisances such as noise and vibration. In terms of visual impact, this is mainly minimised by restrictions on the size and siting of development. It also recognised the greater sensitivity of certain areas and therefore proposed additional restrictions in conservation areas and World Heritage Sites. To control noise and vibration, further specific limits were proposed.

7.5 More generally, these proposals represent a deregulatory initiative and are in line with the government objective of reducing the regulatory burden on households and industry and to improve the overall efficiency of the planning system.

7.6 A consultation paper<sup>1</sup> on the extension of householder permitted development rights for microgeneration was issued on 4 April 2007. The consultation paper set out the Government's proposals for changes to the planning system in relation to the installation of microgeneration equipment for domestic properties. The paper explained the changes proposed for extending and clarifying the scope of permitted development. The technologies

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<sup>1</sup> *Changes to Permitted Development – Consultation Paper 1: Permitted Development Rights for Householder Microgeneration*

covered were: solar, wind turbines, heat pumps, biomass, combined heat and power and hydro. An analysis of consultees' comments and the Government's response to the consultation was published on 27 November 2007<sup>2</sup>.

7.7 A total of 262 responses were received to the consultation document from the following groups:

Local planning authorities – 112 responses (43% of the total)  
Members of the public – 60 (23%)  
National organisations – 35 (13%)  
Businesses – 26 (10%)  
Community groups – 20 (8%)  
Environmental groups – 9 (3%)

7.8 The response was generally positive, with much of the comment related to points of detail as to how the measures proposed would be implemented, rather than any opposition to what the proposals are aiming to achieve. The most significant concerns were around the issue of how the potential impacts of noise and vibration, particularly those associated with wind turbines and air source heat pumps, would be dealt with in the permitted development regime with the approach proposed in the consultation paper being viewed as inadequate and unworkable by around half of those that responded.

7.9 In the light of those responses we have acknowledged that clearer standards will need to be set on noise and vibration for wind turbines and air source heat pumps to ensure neighbours are not disturbed by the development. This is being dealt with principally through work being led by the Department for Business, Enterprise and Regulatory Reform which is working with the microgeneration industry to develop a certification scheme for microgeneration that covers both standards for products and their installation. For that reason, permitted development rights for wind turbines and air source heat pumps are not included in this legislation, but will be implemented as soon as these standards and safeguards have been completed and cleared by the European Commission under the EC Technical Standards Directive 98/34/EC.

## **8. Impact**

An Impact Assessment is attached to this memorandum

## **9. Contact**

Shayne Coulson at the Department for Communities and Local Government Tel: 020 7944 8716 or email: shayne.coulson@communities.gov.uk can answer any queries regarding the instrument.

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<sup>2</sup> Available at [www.communities.gov.uk/publications/planningandbuilding/householdermicrogeneration](http://www.communities.gov.uk/publications/planningandbuilding/householdermicrogeneration)

# Summary: Intervention & Options

Department /Agency:  
**Communities and Local  
Government**

Title:  
**Changes to Permitted Development Rights for Householder  
Microgeneration**

Stage: Final

Version: 1

Date: 4 March 2008

**Related Publications: Consultation Paper 1: Permitted Development Rights for Householder Microgeneration  
Permitted Development Rights for Householder Microgeneration- Government Response to Consultation Replies**

**Available to view or download at:**

<http://www.communities.gov.uk/archived/publications/planningandbuilding/changespermitted>

<http://www.communities.gov.uk/publications/planningandbuilding/householdermicrogeneration>

**Contact for enquiries: Shayne Coulson**

**Telephone: 020 7944 8716**

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

Householders currently enjoy significant permitted development rights. These rights remove the need to apply for planning permission for someone looking to alter or extend their home. Permitted development rights therefore save time and money for the householder and reduce the burden on local authorities. These rights were not drawn up with applicability to microgeneration in mind. Consequently planning permission is currently required for the installation of many types of microgeneration technologies which places a burden on householders. In addition the requirement to apply for planning permission is a barrier to increasing the take-up of microgeneration technologies.

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

The objectives are:

- To reduce the burden on householders who install microgeneration.
- To increase the take-up of microgeneration (which will support BERR's microgeneration strategy).

Increasing the take-up of microgeneration will reduce greenhouse gas emissions, increase energy security and potentially lead to increased investment within the industry resulting in efficiency improvements in microgeneration technology.

**What policy options have been considered? Please justify any preferred option.**

Option 1 - Do nothing

Option 2 - Grant permitted development rights (subject to certain limits and conditions) to the following technologies: solar; ground- and water-source heat pumps; biomass and combined heat and power.

Option 2 is preferred as it will increase the take-up of microgeneration and reduce burdens.

**When will the policy be reviewed to establish the actual costs and benefits and the achievement of the desired effects?**

Three years. At which point evidence will be needed on the realised increases in take-up and a better understanding of the embodied energy costs of microgeneration units.

**Ministerial Sign-off** For final proposal/implementation 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 Minister:

Iain Wright..... Date: 10th March 2008

## Summary: Analysis & Evidence

**Policy Option: 2**

**Description:** Grant permitted development rights (subject to certain limits and conditions) to the following technologies: solar; ground- and water-source heat pumps; biomass and combined heat and power.

<b>COSTS</b>	<b>ANNUAL COSTS</b>		Description and scale of <b>key monetised costs</b> by 'main affected groups'
	<b>One-off</b> (Transition)	<b>Yrs</b>	
	<b>£ 0</b>		
	<b>Average Annual Cost</b> (excluding one-off)		
	<b>£ 0</b>	10	<b>Total Cost (PV)</b> <b>£ 0</b>
<p><b>Other key non-monetised costs</b> by 'main affected groups'</p> <p>Risk of unattractive installations which will be minimal due to the conditions attached to permitted development rights. Costs to householder of purchasing and installing technology. Embodied energy costs of microgeneration units.</p>			

<b>BENEFITS</b>	<b>ANNUAL BENEFITS</b>		Description and scale of <b>key monetised benefits</b> by 'main affected groups' Annual benefits (average per year) Planning application fee savings to householders: £0.2m to £0.4m Planning transaction cost saving to householders: £1.2m to £2.0m Carbon savings to society: £0.02m to £0.09m
	<b>One-off</b>	<b>Yrs</b>	
	<b>£ 0</b>		
	<b>Average Annual Benefit</b> (excluding one-off)		
	<b>£ 1.5m to £2.5m</b>	10	<b>Total Benefit (PV)</b> <b>£ 11.9m to £20.1m</b>
<p><b>Other key non-monetised benefits</b> by 'main affected groups'</p> <p>Secondary benefits from increasing the investment in microgeneration technology. Fuel savings for applicants Reduction in demand for non-renewable energy.</p>			

### Key Assumptions/Sensitivities/Risks

These calculations are sensitive to the chosen take-up scenarios.

Price Base Year 2008	Time Period Years 10	<b>Net Benefit Range (NPV)</b> <b>£ 11.9m to £20.1m</b>	<b>NET BENEFIT (NPV Best estimate)</b> <b>£ See Range</b>
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What is the geographic coverage of the policy/option?				England	
On what date will the policy be implemented?				April 2008	
Which organisation(s) will enforce the policy?				LPAs	
What is the total annual cost of enforcement for these organisations?				£ None	
Does enforcement comply with Hampton principles?				N/A	
Will implementation go beyond minimum EU requirements?				N/A	
What is the value of the proposed offsetting measure per year?				£ 0	
What is the value of changes in greenhouse gas emissions?				£ 0.02m to £0.09m	
Will the proposal have a significant impact on competition?				N/A	
Annual cost (£-£) per organisation (excluding one-off)		Micro	Small	Medium	Large
Are any of these organisations exempt?		N/A	N/A	N/A	N/A

**Impact on Admin Burdens Baseline** (2005 Prices) These are for the year 2010. See (Decrease)  
 Increase of £ 0      Decrease of £ 1.4m to £2.2m      **Net Impact**      £ 1.4m to £2.2m

Key:      Annual costs and benefits: Constant Prices      (Net) Present Value

## Background

Microgeneration is the small-scale production of heat and/or electricity from low carbon sources<sup>3</sup>. Some microgeneration technologies produce energy using renewable resources such as solar, wind or biomass (e.g. wood) and some, like combined heat and power (CHP), may use fossil fuels but are much more efficient than conventional systems.

The current take-up of domestic microgeneration is estimated to be very low with just 82,000 installations across the UK by the end of 2004<sup>4</sup>.

Microgeneration offers a potential way to help deal with some significant problems that face the nation - climate change and national energy security of supply. The Government's Microgeneration Strategy intends that microgeneration should become a realistic alternative or supplementary energy generation source for the householder, the community and for small businesses.

However, the Microgeneration Strategy identifies the requirement to apply for planning permission for microgeneration equipment acts as a barrier to its wider take-up. There is a lack of clarity about whether specific planning permission is required for some technologies and as a result individual local authorities interpret the regulations differently. In addition, the often complex, costly, time consuming and uncertain process of seeking planning permission is an unnecessary barrier.

## Rationale for Government Intervention

The fee for applying for planning permission for householder development is proposed to be £150 from April 2008. However, it becomes more significant once the additional costs of producing scaled drawings, the time and effort in filling in the application form and the potential 8 week waiting period cost before a decision is made. This can be a real economic and time deterrent to the take-up of microgeneration technologies.

The Town and Country Planning (General Permitted Development) Order (GPDO) 1995 grants permitted development rights to carry out specified forms of development without the need to make an application for planning permission. Inclusion of appropriate categories of microgeneration technologies within the GPDO can directly eliminate these costs.

This will also have significant benefits if the demand and take-up of microgeneration technologies leads to reductions in price through economies of scale and in improvements to the effectiveness of these technologies. Encouraging companies to research and develop more energy effective equipment and mass production will drive prices to levels that are more affordable for more householders which will in turn stimulate further demand.

More generally, these proposals represent a deregulatory initiative and are in line with the government objective of reducing the regulatory burden on households and industry and to improve the overall efficiency of the planning system.

## Consultation

A consultation paper<sup>5</sup> on the extension of householder permitted development rights for microgeneration was issued on 4 April 2007. The consultation paper set out the Government's proposals for changes to the planning system in relation to the installation of microgeneration

<sup>3</sup> <http://www.dti.gov.uk/energy/sources/sustainable/microgeneration/strategy/page27594.html>

<sup>4</sup> EST, Potential for Microgeneration Study and Analysis Final Report. Nov 2005

<sup>5</sup> *Changes to Permitted Development – Consultation Paper 1: Permitted Development Rights for Householder Microgeneration*

equipment for domestic properties. The paper explained the changes proposed for extending and clarifying the scope of permitted development. An analysis of consultees' comments and the Government's response to the consultation was published on 27 November 2007<sup>6</sup>.

A total of 262 responses were received to the consultation document from the following groups:

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Environmental groups – 9 (3%)

The response was generally positive, with much of the comment related to points of detail as to how the measures proposed would be implemented, rather than any opposition to what the proposals are aiming to achieve. The most significant concerns were how the potential impacts of noise and vibration would be dealt with in the permitted development regime with the approach proposed in the consultation paper being viewed as inadequate and unworkable by a significant majority of respondents.

In the light of those responses we have acknowledged that clearer standards will need to be set on noise and vibration, for wind turbines and air source heat pumps to ensure that neighbours are not disturbed by the development. This will be dealt with principally through further work being led by the Department for Business, Enterprise and Regulatory Reform which is currently working with the microgeneration industry to develop a certification scheme for microgeneration that covers both standards for products and their installation. For that reason, permitted development rights for wind turbines and air source heat pumps are not included in this legislation, but will be implemented as soon as these standards and safeguards have been drawn up and received clearance from the European Commission under the EC Technical Standards Directive.

### **Sectors and groups affected**

The sectors most likely to be affected by the proposal are:

- Households wishing to purchase microgeneration technologies through reduced planning costs.
- Microgeneration equipment manufacturers, installers and retailers as a result of greater demand as barriers to take-up are removed.
- Microgeneration equipment retailers (who will experience greater demand for microgeneration technologies as the barriers to take-up are removed).

There may also be secondary effects to:

- Planning services/staff at local authorities who will have increased certainty as to what is acceptable without the need for an application for planning permission.
- Non-renewable energy suppliers who may experience reduced demand for their energy as barriers to the take-up of renewables are removed.

### **Options**

#### Option 1 Do Nothing

Do not adjust the GPDO for microgeneration.

#### Option 2

Adjust the GPDO for solar; ground- and water-source heat pumps; biomass and combined heat and power with the following limits and conditions:

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<sup>6</sup> Available at [www.communities.gov.uk/publications/planningandbuilding/householdermicrogeneration](http://www.communities.gov.uk/publications/planningandbuilding/householdermicrogeneration)

The amendment to the GPDO allows for the installation of solar PV or solar thermal equipment on the wall or roof of a dwellinghouse or a building within its curtilage so long as the equipment does not protrude more than 200 millimetres. Stand alone solar will be permitted if its height does not exceed four metres above ground level and is more than five metres from the boundary. There are restrictions that apply to solar in conservation areas, World Heritage Sites and to listed buildings.

## Costs and benefits

### Option 1 Costs and Benefits

There should be no additional costs or benefits from not reforming permitted development for microgeneration. It would however, mean that the barrier to microgeneration take-up remains in place.

### Option 2 Benefits

#### Savings from reduced cost of planning applications

Making a planning application incurs the following costs:

- Direct cost: the planning fee.
- Indirect costs: transaction costs such as professional fees, production of scaled drawings etc.

If the requirement to seek planning permission were removed these costs would no longer be incurred. The saving per application would be as follows:

- Planning fee is £150.
- Transaction cost is £725<sup>7</sup>.

This produces a total saving of £875 per installation.

In order to calculate the number of planning permissions per year that will no longer be subject to planning permissions a survey of the number of applications submitted by technology type was conducted for a sample of 20 local authorities<sup>8</sup>. This was then divided by the number of total planning applications in each authority<sup>9</sup> to calculate the proportion of all applications for each technology type. The average of these technology types was then multiplied by the total number of planning applications in England to give an estimation of the baseline number of microgeneration units installed.

Estimated Planning Application in England										
Solar Thermal		Solar PV		Heat Pumps		Micro CHP		Biomass		Total microgeneration planning applications for technologies affected by these regulations
Estimated Number	Proportion of all microgen	Estimated Number	Proportion of all microgen	Estimated Number	Proportion of all microgen	Estimated Number	Proportion of all microgen	Estimated Number	Proportion of all microgen	
1,493	83%	311	17%	181	10%	268	15%	73	4%	1,804

Two adjustments have been made to predict the number of applications that will be saved over the assessment period:

<sup>7</sup> Based on the PwC Administrative Burdens Measurement Project. The transaction cost of a minor application was calculated as £1450. It was assumed that a householder consent would cost half of this, or £725.

<sup>8</sup> 12 authorities responded with number of applications.

<sup>9</sup> The number of householder applications per English planning authority is collated and published by CLG. See <http://www.communities.gov.uk/planningandbuilding/planningbuilding/planningstatistics/developmentcontrolstatistics>

- Two scenarios of growth in the number of microgeneration units installed per year due to the reform of permitted development rights. The low scenario projected growth of 2% per annum whilst the high scenario projected growth of 5% per annum.
- Not every new microgeneration unit will meet the requirements of permitted development post change. It is reasonable to assume however that the majority of units will meet the requirements as consumers will have an incentive to choose microgeneration units that are permitted development in order to save planning costs. In addition the proportion of microgeneration units that meet the requirements over time should increase as manufacturers adapt to meet the permitted development requirements. For our high scenario the proportion of microgeneration units that meet requirements has been chosen to increase from 75% to 100% over the assessment period. For the low scenario the proportion has been chosen to increase from 50% to 75%.

Forecasts of future additional and total microgeneration units that will be permitted development have therefore been calculated for a high and a low scenario:

		Projected Microgeneration uptake that will be Permitted Development in England											
		Solar Thermal		Solar PV		Heat Pumps		Micro CHP		Biomass		Total for microgeneration units permitted through these regulations	
		Additional to Baseline	Total	Additional to Baseline	Total	Additional to Baseline	Total	Additional to Baseline	Total	Additional to Baseline	Total	Additional to Baseline	Total
Low Growth Scenario	2008	15	761	3	159	2	92	3	137	1	37	23	1186
	2009	32	820	7	171	4	99	6	147	2	40	50	1277
	2010	51	880	11	183	6	107	9	158	2	43	79	1371
	2011	72	943	15	196	9	114	13	169	3	46	112	1468
	2012	95	1007	20	210	11	122	17	181	5	49	148	1569
	2013	120	1074	25	224	15	130	22	193	6	52	187	1673
	2014	148	1143	31	238	18	138	27	205	7	56	230	1781
	2015	178	1215	37	253	22	147	32	218	9	59	277	1892
	2016	210	1289	44	268	25	156	38	231	10	63	328	2007
	2017	245	1365	51	284	30	165	44	245	12	66	382	2126
High Growth Scenario	2008	56	1176	12	245	7	92	10	211	3	57	87	1831
	2009	119	1280	25	267	14	99	21	230	6	62	185	1994
	2010	190	1392	39	290	23	107	34	250	9	68	295	2168
	2011	268	1512	56	315	32	114	48	271	13	73	418	2355
	2012	355	1641	74	342	43	122	64	295	17	80	553	2555
	2013	451	1778	94	370	55	130	81	319	22	86	703	2770
	2014	557	1926	116	401	67	138	100	346	27	94	868	2999
	2015	673	2083	140	434	81	147	121	374	33	101	1048	3244
	2016	800	2252	167	469	97	156	144	404	39	109	1246	3507
	2017	939	2432	196	507	114	165	169	437	46	118	1462	3787

These projections have been multiplied by the savings in planning applications to give estimated savings in planning application fees and planning transaction costs.

The estimate for average savings to planning application fees is: £0.2m to £0.4m

The estimate for average annual savings to planning transactions cost is: £1.2m to £2.0m

See the annex for the admin burden calculation.

This assessment will underestimate the savings from reduced planning applications as it does not take into account the increase in microgeneration units that occur from other reasons apart from permitted development reform. There are many reasons to expect an increase in microgeneration take-up, including increasing awareness of climate change, increasing fuel prices and BERR's microgeneration strategy.

### Green house gas savings

Microgeneration provides a more environmentally sustainable form of energy production than non-renewable sources. It has been possible to calculate the potential carbon savings from the increases in

take-up of microgeneration units. The increase in take-up was taken from the calculation of the total number of microgeneration units described above. Potential savings in gas and electricity were then calculated on the basis of electricity and gas consumption provided by consultants in a previous version of this report. These were then multiplied by emission factors for gas and carbon usage to give the quantities of carbon dioxide equivalent saved. This gives the following high and low estimates for carbon saved:

Carbon savings calculations to 2017 - annual carbon savings (tonnes)							
		Solar Thermal	Solar PV	Heat Pumps	Micro CHP	Biomass	Total for microgen permitted through these regulations
<b>Low scenario</b>	2008	7	1	4	15	3	31
	2009	23	3	13	46	7	92
	2010	48	7	27	96	12	191
	2011	84	11	47	167	20	330
	2012	131	18	73	261	30	514
	2013	191	26	107	380	43	747
	2014	264	36	148	527	59	1,033
	2015	352	48	197	703	78	1,378
	2016	457	62	256	911	100	1,786
2017	578	78	324	1,153	127	2,260	
<b>High scenario</b>	2008	28	4	16	55	6	108
	2009	87	12	49	173	19	339
	2010	181	24	101	361	39	706
	2011	314	43	176	626	68	1,226
	2012	490	66	274	977	106	1,914
	2013	714	97	400	1,423	154	2,788
	2014	990	134	555	1,975	214	3,867
	2015	1,324	179	742	2,640	286	5,171
	2016	1,721	233	964	3,432	372	6,721
2017	2,186	296	1,225	4,360	472	8,540	

These can be converted into monetary savings using DEFRA's shadow price of carbon<sup>10</sup>. The estimate for the average monetary value of these savings is £25,000 to £94,000 per year,

The figures above underestimate potential greenhouse gas savings as an assessment period of 10 years has been used whilst the lifespan of many microgeneration units will last for much longer. However this assessment does not take into account the embodied energy cost due to there being insufficient evidence on the embodied costs of different microgeneration technologies. Future evaluation of this proposal will need to take into account embodied energy costs.

### Reduced fuel bills for householders

The increase in take-up microgeneration units will save fuel bills for those houses that install microgeneration units as a result of this measure. These have not been included as part of this impact assessment however as it has not been possible to assess the cost purchasing and installing additional microgeneration units (see below). Including the benefits of fuel savings without these costs would lead to an unbalanced assessment. In addition the magnitude of the fuel savings will depend on the future price of electricity and gas.

### Energy security

Microgeneration can contribute positively towards renewable energy targets, increasing the overall stock of UK energy supply and adding to long term energy security.

### Benefits to the Microgeneration Industry and Secondary Benefits

The increase in demand for microgeneration units will benefit firms that produce and install microgeneration units.

<sup>10</sup> See <http://www.defra.gov.uk/environment/climatechange/research/carboncost/step1.htm>

This has the potential to boost investment in microgeneration leading to efficiency improvements. This could further benefit consumers and the environment as prices fall, output increases and embodied energy costs decrease. Any price falls will depend on the capacity of the industry and the structure of the market.

## **Option 2 Costs**

### Costs of purchasing and installing microgeneration units

Householders who install microgeneration units as a result of this proposal will incur a cost when they purchase and install their unit. The quantitative cost of this has not been assessed in this impact assessment as it will depend on how the cost of microgeneration units falls over the assessment period. In addition it is not easy to collect data on installation costs. The costs of purchasing and installing units along with the fuel savings have therefore been excluded from the summary sheet calculations.

### Landscape and amenity

There will be some limited impacts on the landscape. Solar will almost always be installed on a roof and given that it will not be permitted to project more than 200mm from the roof there will be little change to the roof's shape. Whether there is an adverse impact in terms of the contrast between solar panelling and the more traditional roofing material is a matter of personal opinion. As the main units associated with biomass and combined heat and power are likely to be located in the property any impact will be down to the flue part of the system. Given that many properties already have flues, TV aerials or satellite dishes any additional impact will be minimal. Finally, heat pumps are not likely to be visible at all externally once installed

### Costs of the embodied energy of microgeneration

The additional units of microgeneration installed as a result of this impact assessment will require energy to manufacture. There is no available data on the embodied energy costs of different microgeneration units.

### Costs to conventional energy providers

If more households get some or all of their energy requirements from microgeneration technologies there will be a reduced demand for energy from other sources. This imposes costs on more conventional energy providers in terms of lost business. However as a proportion of the total conventional energy market these reductions in demand will be small.

### Effect on enforcement

Specific planning permission provides an effective way for local planning authorities to control development.

Permitted development rights allow microgeneration to be installed without the approval of the local planning authority and the accompanying publicising of the development with neighbours etc. This may lead to enquiries/complaints from neighbours or surrounding occupiers as to whether something is acceptable. However, given that the permitted development rights have been drawn up with a view to minimising the impact on others and that what is permitted is subject to a clear and simple set of rules councils should be able to meet the enforcement requirements through their existing enforcement teams.

## **Implementation**

The technologies covered by this impact assessment will be granted permitted development rights under an amendment to the Town and Country Planning (General Permitted Development) (Amendment) (England) Order 1995 (the GPDO) which will apply from 6 April 2008.

## **Competition Assessment**

An assessment of the potential competition effects of the options has been undertaken. The main conclusions that can be drawn at this stage:

- Household electricity and gas are supplied mainly by large energy supply companies. The options discussed in this Impact Assessment are likely to have relatively negligible effects on their operations. If take-up of domestic microgeneration were to rapidly increase, however, this may potentially result in increasing activity in this sector from such companies (indeed, a number of major energy supply companies are already active in the microgeneration industry). Furthermore, increased take-up of microgeneration may provide price competition with the more conventional fossil fuels.
- Fewer restrictions to planning regulation are likely to make microgeneration products more competitive and may stimulate greater demand for their products. This in turn may allow these companies to benefit from economies of scale in their production techniques with greater mechanisation and worker productivity. The result may be a reduction in costs to microgeneration products which in turn may stimulate further demand. This will be especially relevant for microgeneration technologies under 12.5kW (or those that are 'small' and ready for the domestic market).
- It is possible that more short term research and development and efforts will be focused on smaller scale renewable technologies rather than creating efficient and affordable larger scale technologies. This may affect the achievement of renewable energy targets depending on the level of take-up of smaller scale microgeneration technologies.
- Fewer planning restrictions may reduce barriers to market entry for new businesses. Smaller microgeneration manufacturers may face a more favourable environment compared to the current situation. However, existing firms which are already more efficient in their production methods may be able to create barriers to entry through competitive pricing (thereby reducing the profitability of entry).

In relation to effects on competitiveness with countries outside the UK, the following conclusions have been drawn:

- UK based companies are likely to benefit from fewer restrictions. All other factors being equal, increased demand may help these companies reduce their production costs through economies of scale. A reduction in their price might make them more competitive in the international market, with potential knock on effects of increasing demand and further reductions in price. This may also mean more available funds for innovation and R&D.

### **Small Firms' Impact Test**

The Micropower Council, which represents the industry and which includes smaller firms amongst its membership, were closely involved in steering the research output that informed the preferred approach. While they are keen for action to be taken to facilitate the take-up of microgeneration, they are also keen to ensure that suitable restraints are put in place so as to prevent development that could impact adversely on others and therefore undermine the acceptable use of these technologies.

There will be positive impacts for small firms involved in the manufacturing or installation of microgeneration units. In addition small firms involved in the supply chains of these firms could benefit.

On the other hand some categories of small firm involved in assisting with householder planning permissions may be negatively affected by this proposal:

- Surveyors / consultants who may provide advice to local planning authorities and households;
- Architects / drafting firms to prepare scale drawings for planning permission.

Householder applications for microgeneration installation currently make up less than 1%<sup>11</sup> of householder applications. The overall impact on these industries should therefore be small.

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<sup>11</sup> Based on the survey and development control statistics.

**Legal aid**

None of the options has a legal aid impact.

**Sustainable development**

There exists real potential for the increased use of microgeneration to contribute greatly to meeting our future energy needs in a sustainable way.

**Other environment**

Increased take-up of householder microgeneration will have some effect on landscape and visual amenity

**Carbon assessment**

Microgeneration provides a more environmentally sustainable form of energy production than non-renewable sources. A greater use of this technology would lead to lower emissions of carbon dioxide.

**Health impact assessment**

None of the options has a health impact

**Race equality assessment**

As required by the Race Relations (Amendment) Act 2000 we have also examined whether any of the options would affect any groups or communities (e.g. black and ethnic minority [BME] groups) differentially. We believe that they would not.

**Disability Equality**

None of the options has a disability equality impact

**Gender Equality**

None of the options has a gender equality impact

**Human Rights**

None of the options has a human rights impact

**Rural proofing**

Microgeneration equipment installations could have a potential aesthetic impact in rural areas.

**Enforcement, sanctions and monitoring**

It is anticipated that the current regime of enforcement, sanctions and monitoring of development will be maintained and not need alteration in the light of the proposals.

## Specific Impact Tests: Checklist

Use the table below to demonstrate how broadly you have considered the potential impacts of your policy options.

**Ensure that the results of any tests that impact on the cost-benefit analysis are contained within the main evidence base; other results may be annexed.**

Type of testing undertaken	<i>Results in Evidence Base?</i>	<i>Results annexed?</i>
Competition Assessment	Yes	No
Small Firms Impact Test	Yes	No
Legal Aid	Yes	No
Sustainable Development	Yes	No
Carbon Assessment	Yes	No
Other Environment	Yes	No
Health Impact Assessment	Yes	No
Race Equality	Yes	No
Disability Equality	Yes	No
Gender Equality	Yes	No
Human Rights	Yes	No
Rural Proofing	Yes	No

## Annexes

### Calculation of Admin burden Baseline

The estimated number of applications in 2010 that will be permitted development is used to calculate the reduction in admin burdens. It is assumed that 78% of these householder applications are completed by businesses on behalf of householders. The estimates of burdens from the PwC Administrative burdens exercise are then used to calculate total admin burden savings. These are £725 for planning transaction costs and £547 for the provision of ownership certificate burden<sup>12</sup>.

Low estimate  $(1371 * 78\%) * (£725 + £547) = £1.4m$

High estimate  $(2168 * 78\%) * (£725 + £547) = £2.2m$

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<sup>12</sup> The burden for ownership certificates has not been included in the main impact assessment due to uncertainty over its calculation. However it is appropriate to include in the assessment of the impact on the administrative burden baseline as it was included in the original assessment of administrative burdens.