



Scottish Government Consultation Paper: Permitted Development Rights For Domestic Microgeneration Equipment

Planning Committee
15 May 2008

1 Purpose of report

1.1 To inform Committee of the Scottish Government's consultation concerning new secondary legislation on procedures relating to processing planning applications for microgeneration technologies and to recommend the Council's response.

2 Summary

2.1 The consultation paper is seeking views on the extent to which planning control can be reduced for domestic buildings by making microgeneration equipment 'permitted development' (PD) and thus remove the need to apply for planning permission.

2.2 The types of micro renewable equipment covered in the consultation are:

- solar water heating,
- solar electricity (photo-voltaics),
- micro wind turbines,
- biomass boilers,
- heat pumps (ground, water and air source),
- combined heat and power systems and
- micro hydro-electric generators.

2.3 Committee has previously supported the wider take up of domestic microgeneration equipment and the comments in this report are focused on how that can be achieved, while protecting amenity and heritage.

3 Main report

3.1 Domestic properties and small commercial buildings can contribute to renewable energy through the use of 'microgeneration' (or micro-renewables) technologies. Microgeneration refers to both the generation of

electricity *and/or* heat on a small scale basis and **from a low or no carbon source**.

3.2 The **Climate Change and Sustainable Energy Act 2006** defines small scale 'microgeneration' as:

- in relation to the generation of electricity, 50 kilowatts;
- in relation to the production of heat, 45 kilowatts thermal.

3.3 The Scottish Government proposals seek to support micro-renewable technologies in domestic situations and allows for cases where the technologies will no longer need planning permission.

3.4 The draft proposals acknowledge the potential impacts on built heritage features and this is taken account of in how the proposals for permitted development rights are framed. Notably, there is no distinction between flatted and non-flatted properties, other than in the case of erecting solar panels on the façade of a block of flats. Further, whilst the proposals paper does discuss issues around natural heritage, the view is taken that impacts on major natural heritage designations are likely to be few, given that this applies to domestic scale equipment.

3.5 Any proposed installation of microgeneration equipment on a listed building would require an application for listed building consent under the Planning (Listed Buildings and Conservation Areas) (Scotland) Act 1997. With this control in place, it is not proposed to make special provision for listed buildings in these proposals, other than situations where the installation of the equipment could affect the setting of a listed building.

3.6 The proposals do not have any implications for the way individual applications have to be determined, which will continue to be based on the principle that every case has to be determined on its merits. There also remains the option for Local Authorities to require applications that would otherwise be permitted development through the designation of Article 4 Directions, where special circumstances warrant this approach.

3.7 Changes to PD will not affect the separate Building Standards requirements which are concerned, in this instance, with maintaining the safety and environmental performance of the building.

Specific micro-renewable equipment

Solar Water Heating and Photo-Voltaics

3.8 Solar water heating panels and photo-voltaic panels share many characteristics that could have potential impacts and therefore the same approach is proposed for both. The issues for PD are primarily about the impact of the panels on amenity and the wider visual environment where cumulative impacts may arise.

- 3.9 Where a property has a pitched roof, the proposals limit the protrusion from the roof plane of 150mm, with a maximum 60% coverage of the roof plane area. Re-roofing a house in a way which materially affects its appearance would require planning permission and the proposals seek to ensure that the overall integrity of the roof shape and its reflective qualities are retained.
- 3.10 The installation of solar panels on the walls of tenements and other buildings containing flats raises additional issues compared to installations on houses. A multitude of different installations on the same façade would be likely to affect the amenity of other residents and destroy the unity of the design. There would be no neighbour notification under permitted development and other residents in the same building would not be able to object. Thus installation on the facades of flatted properties is therefore excluded and will continue to require planning permission.
- 3.11 Different considerations apply on flat roofs and the proposals here are for solar panels on flat roofs being at least 1 metre from the edge of the roof, allowing them to be angled to the sun provided they do not exceed one metre in height so as to minimise visual impacts on neighbouring property, and the same 60% coverage as for pitched roofs.
- 3.12 Solar panels can also be installed as free-standing features in gardens or elsewhere within the property boundary. The existing PD rights for extending dwelling houses or adding buildings applies in this instance other than the fact that, rather than requiring planning permission where such structures are within 20 metres of a road, this is reduced to 5 metres in the case of solar panels.
- 3.13 The proposals exclude permitted development in conservation areas but only where proposals face a road. This does not take account of the three dimensional nature of Edinburgh's built character, where any alterations to roofs could have far reaching consequence in visual terms. It is, therefore, suggested in the response to this draft that permitted development rights are not extended to any roof within a conservation area.
- 3.14 Additionally, the rationale behind allowing up to 60% of the roof plane to be covered by solar panels has been questioned as in largely homogenous suburban areas, the cumulative impact of this needs to be considered, particularly with respect to the front elevation.

Wind turbines

- 3.15 Small domestic scale wind turbines of about 2 metres in diameter can either be fixed on a pole attached to the building or on a free-standing mast. There are concerns that they can generate a degree of noise, vibration and light flicker. Their impacts depend on their siting, the number

of people in the area, the surrounding buildings/environments and ambient noise levels.

- 3.16 In the light of this, the proposals are suggesting that PD for building mounted or free-standing turbines applies to houses which are well separated from neighbours who might be adversely affected, and limited to one turbine per house, including the curtilage. A simple distance criteria of at least 100 metres to the nearest residential property is put forward. In Edinburgh this will effectively mean that the majority of proposals will require planning permission.
- 3.17 However, consideration should be given as to why permitted development is set at 100m. If this is in regard to noise concerns, then it may be difficult for local planning authorities to overcome neighbour objections to such features without substantial technical information submitted with such applications. This will render such micro-renewable technologies beyond the scope of householders. If there are concerns over noise associated with domestic wind turbines, appropriate noise levels should be agreed between the Scottish Government and technology providers to overcome this issue.
- 3.18 For free standing turbines, the masts may also have a visual impact. Planning Advice Note 45 (Annex) says that the colour should be appropriate to the setting and designed to minimise visual impact and reflection of light. One possibility would be to make PD subject to a condition such as 'provided the colour of the mast minimises its visual impact'. However, this adds a layer of bureaucracy and would be difficult to enforce. It is therefore suggested that this is not necessary or appropriate.

Biomass

- 3.19 Biomass boilers are deemed to be carbon neutral because the carbon emitted during wood burning is said to match that absorbed during tree growth. In an environmental respect, the Council has concerns that the very fine particles biomass boilers emit may make it more difficult to achieve air quality objectives in urban areas. As a result, and because of the need to identify types of energy generating technology when the Council's Standards for Sustainable Building apply, the opportunity has been taken to advise against the use of biomass boilers in those cases until a clearer position statement is given by the Scottish Government on air quality standards. However, in the purely domestic situations covered by this consultation, the use of biomass boilers in itself is not a planning issue, though flues and storage/delivery areas for the wood/pellets could be. The boilers and stoves would be internal and, therefore, not a matter for planning permission and hence nor for PD.
- 3.20 The Scottish Government research on amending the PD rights for householder development generally adequately covers storage for

biomass fuel sources and therefore specific provisions are not needed under the microgeneration heading. Provision has been made for boiler flues which should be permitted development up to 1 metre above the highest point of the roof.

- 3.21 However, as with solar panels and photo-voltaic cells, the boiler flues can have an effect on the appearance of a property, even if they do not face a road. Particularly where there are flatted or subdivided properties, the cumulative impacts of such structures, can be significant. Therefore, it is suggested that there should be no permitted development rights for flues in conservation areas.

Heat Pumps

- 3.22 Ground source heat pumps which need trenches or boreholes could potentially affect archaeological sites. For those which are Scheduled Ancient Monuments, the separate requirement to get Consent will remain and planning authorities will continue to have the option of using Article 4 Directions to control PD rights for them and for other areas provided there is sufficient justification. It is also the case that the size of garden required to dig a large trench within the curtilage of a dwelling house or flat will act as a constraint on the exercise of PD rights. In view of these factors, it is not proposed to restrict PD rights generally for archaeological reasons.
- 3.23 Water source heat pumps could require a separate authorisation under the Controlled Activities Regulations to control effects on the water environment.
- 3.24 Air source heat pumps draw their air from just outside the building, are similar in appearance to large air conditioning units and are potentially a source of noise because of their fan(s) and compressor. It is therefore proposed to restrict permitted development rights to properties where it is 100 metres distant from the nearest residential building. A distance criteria would have the effect of not granting PD rights to flats.

Combined Heat and Power (CHP)

- 3.25 A combined heat and power device simultaneously generates electricity and heat for water and space heating. Units are available as replacements for domestic boilers. Being internal, they are not expected to give rise to planning issues.

Micro Hydro-electricity

- 3.26 Hydro schemes generate electricity by using water to turn a turbine connected to a generator. There are likely to be few opportunities for such schemes in domestic circumstances and the planning issues are likely to be specific to the land and property in question. It is not proposed to extend permitted development rights to cover hydro-electric generation.

Possible Cumulative effects

- 3.27 The PD proposals above have been set on the basis of each individual technology. The question arises as to whether there should be an overall limit to the installation of microgeneration equipment under PD Rights. The purpose would be to control any cumulative impacts. The SE research recommended a limit of 50kW (or 45kW thermal) within the curtilage of a single house. The rationale of this is questioned, particularly as this will be difficult for planning authorities to monitor and enforce.
- 3.28 Other than combining air pumps and wind turbines and thus, potentially, creating two noise generating elements, it is not considered that there is likely to be any harm caused by combining technologies at one domestic property.

4 Financial Implications

- 4.1 It is not anticipated that there will be significant resource implications as a result of the proposals. It is likely that this will result in numerically fewer applications for planning permission. However, the number of applications for micro-renewables is small at present and the fact that permitted development rights are limited in conservation areas and not extended to listed buildings will mean that there is little impact on the workload in Edinburgh.

5 Conclusions

- 5.1 The City of Edinburgh Council has supported the wider take up of domestic microgeneration equipment and therefore supports the Scottish Government's proposals to amend the permitted development rights for Microgeneration technologies.
- 5.2 As technology improves, microgeneration technologies are also becoming more accessible to householders and the interest in their installation in Edinburgh is increasing. The City of Edinburgh Council supports the use of microgeneration technologies, provided that they do not have an adverse effect on visual or residential amenity, listed buildings and conservation areas, natural heritage or road safety.
- 5.3 The comments in this report therefore use the experience of this planning authority and focus on how a wider take up of domestic microgeneration equipment can be consistent with the protection of such amenity and heritage.
- 5.4 As comments were required by 12 May, this report has been forwarded as the Council's draft response, subject to the views of Committee.

6 Recommendations

- 6.1 It is recommended that the Committee agrees that this report and the appendix be forwarded to the Scottish Government as the Council's response to the consultation paper on Permitted Development Rights for Domestic Microgeneration Equipment.



Dave Anderson
Director of City Development

Appendices	Appendix 1: Detailed considerations by The City of Edinburgh Council on the Scottish Government's consultation paper "Permitted Development Rights For Domestic Microgeneration Equipment", May 2008
Contact/tel	Barbara Cummins (0131) 529 3442 Kate Evans (0131) 529 6232
Wards affected	All
Background Papers	1 Scottish Government's consultation paper "Permitted Development Rights For Domestic Microgeneration Equipment", May 2008 2 Planning Advice Note (PAN) 45 (Annex) Planning for Micro renewables

Appendix 1

Detailed considerations by The City of Edinburgh Council on the Scottish Government's consultation paper "PERMITTED DEVELOPMENT RIGHTS FOR DOMESTIC MICROGENERATION EQUIPMENT", May 2008

General

Q1: Are there sufficient grounds to further constrain the PD proposals for domestic microgeneration equipment, especially wind turbines, in areas designated for their landscape quality?

Given that only one turbine is permitted and the distance criteria proposed is significant, it is not considered that cumulative impact is likely to be significant for an urban authority such as Edinburgh. There is no justification for further limiting permitted development rights.

Q2: Are there sufficient grounds to further constrain PD proposals for domestic microgeneration equipment in areas designated for the protection of flora and fauna?

As 1 above.

Q3: Should PD rights for microgeneration equipment, except wind turbines, be granted in areas designated for their built heritage value providing that the principal elevation fronting a highway is unaffected?

This is more problematic in a city like Edinburgh. The character of the built environment is not limited to that part of built development immediately fronting a public highway. The three dimensional quality of Edinburgh's built environment means that some developments on the roof of properties, is likely to have wider impacts. An example where this was acknowledged recently at appeal relates to the installation of solar panels on the roof of a mews style property in Great King Street (appeal reference P/PPA/230/797 and P/LBA/230/152). Whilst this related to a listed building, the principles are equally applicable to unlisted buildings in conservation areas. The reporter acknowledged the special characteristics of the New Town Conservation Area and the fact that it is often viewed and photographed from above, both due to the topography and the nature of buildings, being larger Georgian properties with smaller mews behind.

It is suggested that, as at present, any alteration to a roof in a conservation area requires a fuller assessment and should be subject to the need for planning permission. This will continue to allow the Planning Authority to make an assessment as to whether there is any material impact on the appearance of the property and thereby permit the works in the event that they do not.

Q4: Are the separate controls for listed buildings sufficient to control the installation of microgeneration equipment?

Yes.

Q5: Will the setting of listed buildings be adequately protected by not granting PD rights to wind turbines and solar arrays within their curtilage?

This does not sufficiently address the setting of listed buildings, which can extend beyond the immediate curtilage. However, this is unlikely to constitute a significant number of properties such that further restrictions would be necessary.

Q6: Do you think that general conditions on amenity and other impacts could be applied to the PD rights for microgeneration equipment?

No. The aim of the proposals should be to allow householders to determine that what they are proposing is permitted development. By adding conditions, this will result in the need for confirmation, without a fee income, from planning authorities that they are satisfied with the proposed works. It may also result in expectations from neighbours that enforcement action will be taken. It is difficult to see how generic conditions can be easily and reasonably enforced.

Q7: Do you agree that the same PD rights should apply to solar water heating and photovoltaic panels? If not, please say why.

This approach is reasonable.

Q8: Do you consider that the proposed PD limits for solar panels on domestic buildings of 150mm above the plane of a pitched roof or a wall, not higher than the highest point of a pitched roof and covering up to 60% of the roof or wall area are appropriate? If not, what should the limits be and why?

This requires clarification:

- Does this apply to a single plane or to a cumulative approach on a single roof?
- Will planning permission be required if a dwelling house has already altered their roof – i.e with Dormers or Velux windows?
- Is the 60% of roof plane taken to include the whole plane of the roof, or outwith any features such as dormers or velux?

The language of the revised Order must be absolutely clear.

Additionally, in largely homogeneous areas, allowing for 60% of the roof to be covered by solar panels, could have a significant impact on the appearance of streets. We question the Scottish Government's assumption that allowing for up to 60% would not have a significant material impact.

The City of Edinburgh Council's preference would be to exclude the front plane of the roof of domestic properties from this, thus safeguarding the wider character of suburban locations as well as those with conservation area designation.

Q9: Do you agree that there should be no PD for solar panels on the walls of buildings containing flats?

Yes.

Q10: For flat roofs do you agree or do you have alternatives to the suggestion that PD rights for solar panels should be set so that they are no closer than 1 metre to the edge of the roof, with the highest point of the panel not more than 1 metre above the plane of the roof covering up to 60% of its area? If not, please suggest alternative provisions.

This appears a reasonable approach. However, as with question 3 above, the nature of the built environment requires to be taken account of in that topography may also render a roof highly visible from areas other than the road immediately fronting it. It is difficult to see how this can be catered for in general situations. However, it is suggested that any alteration to a roof in a conservation area should be subject to planning permission, as at present.

Q11: For free-standing arrays, should PD rights be set at less than 4 metres in height, at least 5 metres from the property boundary and with a maximum area of 9 square metres?

This results in all structures within the curtilage of a domestic property being considered in the same light, and is reasonable.

Q12: Do you agree with the principle of applying distance criteria for wind turbines to deal with the potentially adverse impacts?

Yes. There appears no other solution to a simple, easily understood and enforced criteria.

Q13: If you agree with question 11 (don't think that's right should it be 12?) do you think it should be set at 100 metres to the nearest domestic building or can you suggest and give evidence for another figure?

The result for urban authorities such as Edinburgh is that planning permission will be required in most instances for this type of development. The only concern in this respect is the rationale for the distance criteria.

If it is understood that the reason for domestic wind turbines requiring planning permission within 100m of a neighbouring dwelling house it may be difficult for local planning authorities to overcome neighbour objections to such features without substantial technical information submitted with such applications. This

will render such micro-renewable technologies beyond the scope of householders.

If there are concerns over noise associated with domestic wind turbines, appropriate noise levels should be agreed between the Scottish Government and technology providers to overcome this issue.

Q14: Do you agree with the following limits on the scale of building mounted turbines? (each turbine blade up to 1.1 metres in length, up to 3 metres above the highest part of the roof and one per building)

Given the limited instances where such elements are likely to be permitted development, this is unlikely to have a significant impact for Edinburgh.

However, if the blade tip of a turbine is more than 11.1m above the ground, then permission is also needed from Ministry of Defence Estates safeguarding regime.

Q15: Do you agree with the following limits on the scale of free-standing turbines? (each blade up to 1.1 metres in length and a maximum height including tower of 11.1 metres to the tip of the turbine blade, located at least 12 m from the boundary of the property and one per curtilage).

As at Q14 above.

Q16: Should the visual impact of free-standing turbine masts be controlled by a condition on the PD rights such as “provided the colour of the mast minimises its visual impact” or can you suggest an alternative formula?

As at Q6 above. Conditions would complicate the process by adding another layer of control.

Q17: Do you agree that flues for biomass stoves should be permitted development up to 1 metre above the highest point of the roof but not on the principal elevation in conservation areas?

This appears a reasonable approach.

Q18: Do you agree that wood stores should be treated in the same way as any other residential alterations or ancillary development, so that depending on circumstances they may be PD?

Yes

Q19 Do you agree with the proposal that ground and water source heat pumps, including the collectors and associated trenches or boreholes should be permitted development?

Yes

Q20: Do you agree that air source heat pumps should be permitted development with the proviso that they should not be located within 100 metres of a separate house or flat?

If the issue is to protect residential amenity, this appears a reasonable approach.

However, as at question 13 above, the result for urban authorities such as Edinburgh is that planning permission will be required in most instances for this type of development.

The only concern in this respect is the rationale for the distance criteria. If it is understood that there are noise issues associated with domestic air source heat pumps it may be difficult for local planning authorities to overcome neighbour objections to such features, where applications for planning permission are received without substantial technical information submitted with the applications. This will render such micro-renewable technologies beyond the scope of householders.

If there are concerns over noise associated with air source heat pumps, appropriate noise levels should be agreed between the Scottish Government and technology providers to overcome this issue.

Q21: If you think the distance criteria should be different, please say what you suggest and give the evidence to justify it.

This Authority has no evidence of the impacts of such developments in domestic situations to provide a useful basis for an alternative.

Q22: Do you agree that there are no PD issues for domestic combined heat and power devices except for flues, in which case the PD limit should be 1 metre above the highest point of the roof, and additionally in conservation areas or world heritage sites not on the principal elevation and visible from a road?

This appears a reasonable approach.

Q23 Do you agree that there should be no additional PD rights for domestic scale hydro-electric generating schemes? If no please see the next question

Yes

Q24: If you have answered “no” to the previous question please say in what circumstances and within what criteria you think that domestic scale hydro schemes should be permitted development?

N/A

Q25: Do you think that an overall limit should be set for the combined microgeneration capacity which is permitted development, and if so what should it be? Please justify your answer

No - The proposal to limit micro generation to an energy limit would be difficult for planning authorities to monitor and enforce.

If the concern is for impact on neighbours, particularly in the case of the potential cumulative noise impact of a wind turbine and an air source heat pump, it may be necessary to ask for planning permission if either of these technologies have already been installed. Other than for such considerations, it does not appear necessary to limit technologies in combination at a domestic property.