

The Institute of Acoustics Response to  
**Changes to Various Permitted Development Rights: Consultation**  
8<sup>th</sup> April 2024

## Introduction

The **Institute of Acoustics (IOA)** is the UK's professional body for those working in acoustics, noise and vibration. The IOA has some 3000 members from diverse backgrounds, with engineers, scientists, educators, lawyers, occupational hygienists, architects and environmental health officers among their number. This multidisciplinary culture provides a productive environment for cross-fertilisation of ideas and initiatives. The range of interests of members within the world of acoustics is equally wide, embracing such aspects as aerodynamics, architectural acoustics, building acoustics, electroacoustics, engineering dynamics, noise and vibration, hearing, speech, underwater acoustics, together with a variety of environmental aspects.

Members of the IOA regularly carry out noise impact assessments that contribute to the planning process. To capture their professional experience to feed into the consultation, a consultation workshop attended by 57 Members was held on Wednesday 20<sup>th</sup> March. This response reflects the range of views expressed.

The prior approvals process is the mechanism through which local planning authorities currently consider the impacts of noise on new residential development created under permitted development rights (PDRs). As part of this process, the authority assesses the potential noise impact from existing commercial premises on the intended occupiers of the converted residential units. This assessment is crucial not only to prevent future noise nuisance investigations and complaints after the development is completed but also to ensure that the new residential use does not become an Agent of Change that adversely affects the operation of established businesses in the area.

The prior approvals process aims to strike a balance between facilitating the creation of new homes through PDRs and protecting the rights and interests of both residents and businesses in the area. However, it is important to note that the existing prior approvals process for PDRs does not require the assessment of transportation noise sources, such as road traffic, railways, or aircraft, which can also have significant impacts on the health, well-being, and quality of life of residents in converted properties.

Often in collaboration with other professional and trade bodies, such as the Chartered Institute of Environmental Health and the Association of Noise Consultants, the IOA publish a number of relevant guidance documents on noise and planning:

- Professional Practice Guidance on Noise: Planning and Noise
- Professional Practice Guidance: Gym Acoustics Guidance
- Residential Guide – Acoustics, Ventilation & Overheating Guide
- Air Source Heat Pump Briefing Note – Professional Advice Note

This consultation response was prepared by the following members of the IOA:

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For all questions not listed explicitly below the following response is relevant

- Yes
- No
- Don't know ✓

Please provide your reasons

No clear acoustic implications – no view either way.

**Q.4 Do you agree that the existing limitation requiring that extensions must be at least 7 metres from the rear boundary of the home should be amended so that it only applies if the adjacent use is residential?**

- Yes
- No ✓
- Don't know

**Please provide your reasons**

If the adjacent use is commercial, then the implications of bringing a noise sensitive receptor closer to an existing noise source should trigger the Agent of Change principles (paragraph 193 of the NPPF) to ensure the commercial operation is not “unreasonably restricted”. Therefore, this should be considered through the planning system where a noise impact assessment on the existing businesses and community facilities can be undertaken, and mitigation agreed via prior approval to implement the agent of change principle and guard against causing unreasonable restrictions. This was discussed and agreed as a necessary approach by consensus during the meeting of members.

**Q.5 Are there are any circumstances where it would not be appropriate to allow extensions up to the rear boundary where the adjacent use is non-residential?**

- Yes
- No ✓
- Don't know

**Please provide your reasons**

There is a need to ensure that there would be no unreasonable restriction caused to the existing businesses and community facilities in line with the expectation of the Agent of Change principle, which is part of the approach set out in paragraph 193 of the National Planning Policy Framework. This cannot be achieved under the PDR regime.

**Q.21 Are there any other planning matters that should be considered if bin and bike stores were permitted in front gardens?**

- Yes ✓
- No
- Don't know

**Please provide your reasons**

The IOA recommends the inclusion of Air Source Heat Pumps (ASHPs) in front gardens under PDRs to encourage the deployment of renewable energy technology. Front facades are often the least noise-sensitive, and this would reduce the pressure to place units on quieter rear facades, which are usually the only available amenity spaces.

**Q.24 Do you think that any of the proposed changes in relation to the Class A, B C and E of Part 1 permitted development rights could impact on: a) businesses b) local planning authorities c) communities?**

- Yes ✓
- No
- Don't know

**Please provide your reasons**

Where noise sensitive receptors are brought closer to noise emitting businesses without proper mitigation of the impacts from noise, this could have serious implications for the viability of existing businesses to operate in a common and ordinary way. Relating to a) this could change an established character of the locality of an area (with cultural importance for instance to a mix use area) causing erosion to existing areas of vibrancy as a result. Relating to b) this would be likely to impose regulatory pressures on local authorities dealing with complaints resulting from the situation brought about by PDRs, or in dealing with licencing within an area in which increasing residential use has encroached via permitted development. This in turn could result in imposed community impacts where residents must put-up (or show reciprocity) when living in proximity with other uses, which may harm the character of an area and sense of place for the community as a whole. This may become increasingly important in future urban centres where uses increase in density and is of central importance to the design of sustainable cities where residents can exist alongside daytime and nighttime economic activity and human vibrancy.

**Q.27 Do you have any views on the operation of the permitted development right that allows for the construction of new dwellinghouses on a freestanding block of flats (Class A of Part 20)?**

- Yes ✓
- No
- Don't know

**Please provide your reasons**

Most acoustics issues arising from this situation are handled though the building regulations. However, the IOA has concerns about building additional storeys atop existing blocks of flats near airports, where aircraft noise is prevalent. The construction of additional building storeys will necessarily be of lightweight construction to avoid overloading the building structure and foundations. Lightweight building constructions will offer little resistance to the passage of low frequency noise from aircraft, which will lead to poor living conditions due to high noise levels. This would be in direct opposition to the UK Government's current policy on noise. This could be mitigated and minimised by insisting that blocks of flats falling within an airport's publicly available noise contours (currently  $L_{Aeq,16hr}$  54dB and above) should be subject to a prior approvals' procedure.

**Q.28 Do you agree that the existing limitations associated with the permitted development right for building upwards on a freestanding block of flats (Class A of Part 20) incorporates sufficient mitigation to limit impacts on leaseholders?**

- Yes
- No
- Don't know ✓

**Please provide your reasons**

In addition to the permanent impacts discussed in our response to Qu.27, the IOA notes the potential for temporary noise and vibration impacts during the construction phase. One potential solution would be to make Section 61 agreements under the Control of Pollution Act mandatory, or equivalent technical evidence to be provided to and agreed with the local authority prior to the commencement of works under Class A of Part 20 if existing leaseholders remain in their properties while the works are carried out. This to manage the impact of noise or vibration from construction work on the existing residents.

**Q.29 Do you think that any of the proposed changes in relation to the Class AA of Part 1 and Class A, AA, AB, AC and AD of Part 20 permitted development rights could impact on: a) businesses b) local planning authorities c) communities?**

- Yes ✓
- No
- Don't know

**Please provide your reasons**

Noise from expanded development near noise-producing non-residential uses could impact other businesses, increase the burden on local authority regulatory services, and affect the community of residents, therefore these changes should not be made to PDRs. To minimise this impact, a noise impact assessment should be completed by a qualified acoustician in accordance with National Noise and Planning policies. Where agent of change provisions require mitigation, good acoustic design is necessary to achieve a balance that avoids unreasonable restrictions on non-residential uses and prevents significant adverse impacts on residents.

**Q.31 If the permitted development right is amended to allow newer buildings to be demolished, are there any other matters that should be considered?**

- Yes ✓
- No
- Don't know

**Please provide your reasons**

Buildings can act as barriers between existing noise producing and noise-sensitive uses, therefore the demolition of a building can result in a new state of affairs whereby noise nuisance conditions are created or significant loss of amenity arises. This can result in compromising the freedom of existing businesses to operate without restrictions. Prior approval requiring a noise impact assessment by a suitably qualified acoustician would address this issue.

The IOA supports making better use of existing buildings in line with the Government's sustainable development policies. The decision not to reuse a building, and the implications this has for the embodied carbon, should be subject to prior approval from the local authority, which provides strategic direction for the area. Although the IOA has no specific expertise in this field, the principle of sustainability requires consideration from all collaborating professions to provide future solutions. This view is offered as a point of good governance rather than being specific to acoustics.

**Q.34 Do you think that prior approvals for the demolition and rebuild permitted development right could be streamlined or simplified?**

- Yes
- No ✓
- Don't know

**Please provide your reasons and examples where possible.**

The IOA supports the desire to make better use of existing buildings, particularly in the context of the Government's policies on sustainable development. However, it is vital that the prior approvals process for permitted development rights properly considers noise impacts on new residential developments. The prior approvals system allows for an assessment of the noise risk from existing commercial/industrial premises before new housing is allowed through permitted development. This is crucial for implementing the Agent of Change principle, which places the responsibility for mitigating noise impacts on the new development, not the established business. Without the prior approvals process, there is a risk that new housing could be erected next to long-standing pubs, music venues, factories etc. and then future residents could seek to force those businesses to curtail their operations due to noise complaints.

While the aim to simplify and streamline planning processes is appreciated, any removal or weakening of the prior approval mechanism could severely undermine the Agent of Change principle. This could expose local businesses, cultural venues and community assets to potential closure due to noise issues with new neighbouring housing. It could also lead to a completely preventable scenario of new homeowners being trapped in poor acoustic environments.

The IOA believes that robust prior approvals for noise risk assessments must be a key consideration in any changes to PDRs. Protecting existing businesses and ensuring appropriate acoustic design should be prioritised over marginal procedural streamlining. Getting this balance right is essential for promoting housing while avoiding severe noise conflicts that cause residents harm to health and wellbeing and businesses economic harm and potentially a wider harm to cultural prosperity.

**Q.35 Do you think that any of the proposed changes in relation to the Class ZA of Part 20 permitted development right could impact on: a) businesses b) local planning authorities c) communities?**

- Yes ✓
- No
- Don't know

**Please provide your reasons. It would be helpful if you could specify whether your comments relate to a) business, b) local planning authorities, or c) communities, or a combination.**

**a) Restricting Business Activity**

Without a proper noise assessment through the prior approvals mechanism, new residential developments could easily be constructed in close proximity to existing industrial/commercial premises without due concern for the Agent of Change principle. This could potentially give rise to noise complaints from the new residents, forcing those long-standing businesses to curtail their operations, implement expensive noise mitigation measures, or potentially face closure in order to avoid disturbances. Pubs, music venues, factories, and other local employers could see their activities severely restricted to accommodate the new housing for instance.

**b) Nuisance Complaints and Enforcement**

Local authorities would likely see a significant increase in noise complaints and enforcement actions related to established commercial/industrial premises if this change allowed residential developments to encroach into unsuitable areas. Dealing with an influx of such complaints diverts resources away from other priorities. Enforcement could also become complicated when balancing resident complaints against protecting existing businesses operating as they have done for years. This needs to be balanced with the potential workload from reviewing prior approval submissions.

**c) Unbalanced Communities**

Sustainable communities require appropriate buffers and transitions between residential and industrial/commercial areas. Approving new housing in high-noise areas leads to conflicts and changes in the area's character. This can damage the interaction and cohesion between community elements that should coexist through proper planning and protections. An unbalanced situation arises where pre-existing noisy premises are expected to limit disturbances, and the mitigation provided to residents is inadequate.

**Q.36 Do you agree that the limitation that wall-mounted outlets for EV charging cannot face onto and be within 2 metres of a highway should be removed?**

- Yes ✓
- No
- Don't know

**Please provide your reasons.**

The IOA welcomes the Government's push to accelerate the adoption of electric vehicles and the associated infrastructure requirements. However, there are some concerns about the potential noise impacts of allowing electric vehicle chargers to be installed within 2 meters of a public highway without proper consideration.

While small, consumer-level electric vehicle chargers for residential use tend to be relatively quiet during operation, this is not necessarily the case for larger commercial and rapid charging units. Many of these higher-powered charging points rely on internal cooling fans and inverters that can generate noticeable noise levels, especially when clustered together at charging hubs.

Positioning these noisier charging units in very close proximity to residential premises, either facing the highway or installed on the homes themselves, raises the possibility of noise nuisance and disturbance for neighbours. Depending on the charger design, noise characteristics, and number of units installed, it could result in an unacceptable noise impact.

The IOA recommends that, if this permitted development right is relaxed, it should be accompanied by a sound power level limit (controlling source noise emissions) for new chargers. This would allow the permitted development rights to be relaxed, without undue concern about noise impacts and without burdening the planning system with a prior approvals process.

**Q.37 Do you agree that the limitation that electrical upstands for EV charging cannot be within 2 metres of a highway should be removed?**

- Yes ✓
- No
- Don't know

**Please provide your reasons.**

There is the same concern for upstands for EV charging stations as for wall-mounted chargers in Qu.36. There is the potential for a noise impact if electrical upstands for electric vehicle chargers were to be installed within 2 meters of a public highway without proper consideration.

While small, consumer-level electric vehicle chargers for residential use tend to be relatively quiet during operation, this is not necessarily the case for larger commercial and rapid charging units. Many of these higher-powered charging points rely on internal cooling fans and inverters that can generate noticeable noise levels, especially when clustered together at charging hubs.

Positioning these noisier charging units in very close proximity to residential premises, either facing the highway or installed on the homes themselves, raises the possibility of noise nuisance and disturbance for neighbours. Depending on the charger design, noise characteristics, and number of units installed, it could result in an unacceptable noise impact.

The IOA recommends that, if this permitted development right is relaxed, it should be accompanied by a sound power level limit for new upstands. This would allow the permitted development rights to be relaxed, without undue concern about noise impacts and without burdening the planning system with a prior approvals process.



**Q.38 Do you agree that the maximum height of electric upstands for EV recharging should be increased from 2.3 metres to 2.7 metres where they would be installed in cases not within the curtilage of a dwellinghouse or a block of flats?**

- Yes
- No ✓
- Don't know

**Please provide your reasons.**

The IOA wishes to highlight some acoustic concerns with increasing the allowable height for EV charger upstands from 2.3m to 2.7m as currently proposed.

While the motivation to future-proof designs and accommodate a wider range of vehicle heights is understood, this increase might undermine the noise reduction performance of existing environmental noise barriers near many charger locations.

Acoustic barriers such as solid wooden fences and walls are commonly installed between 2-3m high alongside roads, car parks and other noise sources to provide screening for nearby residential areas. By raising the upstand height to 2.7m, there is a risk that noise sources could end up being above these noise barriers when they otherwise would not have been.

The shielding effect of the barriers relies on having no line-of-sight between the noise source and receiver. Even seemingly minor protrusions above the barrier can degrade their overall sound reduction performance through diffracted sound path.

While enabling EV charging infrastructure is crucial, it should not be at the expense of undermining existing invested noise mitigation measures intended to protect communities from environmental noise exposure.

**Q.39 Do you agree that permitted development rights should allow for the installation of a unit for equipment housing or storage cabinets needed to support non-domestic upstands for EV recharging?**

- Yes
- No ✓
- Don't know

**Please provide your reasons.**

While supporting the rollout of electric vehicle charging infrastructure across the UK, The IOA must raise some concerns about allowing storage cabinets and equipment housing to be installed without any consideration of potential noise impacts on nearby residential areas.

These ancillary installations often house power inverters, cooling fans, and other mechanical equipment necessary to support the charging points themselves. Depending on their design and configuration, these components can act as noise sources that could disturb neighbouring residential properties if placed too close without proper mitigation.

The noise characteristics can vary significantly across the different types of storage cabinets and housings used. Some may generate tonal, whining noises from the inverters, while others produce broadband fan noise. Their proximity to sensitive residential premises is a key factor in whether the noise levels become an issue.

Unlike for the chargers themselves, storage cabinets and equipment housing may contain assemblies of equipment and it might be difficult to apply a simple sound power level limit to control their noise emissions. A prior approval system might be more appropriate for assessing the potential noise impacts in this case.

The IOA recommends that if permitting these installations by-right, there needs to be some mechanism for local authorities to review and approve the siting of noisier equipment cabinets/housings, especially in noise-sensitive areas.



**Q.40 Do you agree that the permitted development right should allow one unit of equipment housing in a non-domestic car park?**

- Yes
- No ✓
- Don't know

**Please provide your reasons. If you think that the permitted development right should allow for more than one unit of equipment housing or storage cabinet, please specify a suitable alternative limit and provide any supporting evidence.**

While supporting the rollout of electric vehicle charging infrastructure across the UK, the IOA would advise against granting an unlimited permitted development right for equipment housing units associated with EV chargers in non-domestic car park settings without any provision for the review of potential noise impacts.

While a single housing unit may seem innocuous, these installations can contain a variety of noise-generating components like inverters, fans, compressors etc. Depending on the specific technology employed and proximity to nearby residential areas, even one unit could potentially cause noise disturbance or nuisance.

The noise characteristics and levels emitted can vary significantly across different equipment housing designs. Without the ability for local authorities to assess and apply appropriate noise control requirements, such as setback distances, enclosure standards, or time restrictions, some housing units may be unsuitable for installation near noise-sensitive receptors.

Non-domestic car parks, such as those for offices, retail parks, leisure facilities and so on, are often located in relatively close proximity to existing housing estates. Introducing noise sources in this setting could lead to justified complaints from residents if not deployed sensibly.

The IOA would suggest that a more balanced approach may be to allow a single equipment housing unit under permitted development rights, but a prior approvals procedure should allow local authorities to review installations.

Public acceptance will be crucial to accelerating EV charging infrastructure growth. Allowing noise nuisance from equipment housing installs could undermine that acceptance within residential communities. A considered implementation approach is advisable.

**Q.41 Do you agree with the other proposed limitations set out at paragraph 60 for units for equipment housing or storage cabinets, including the size limit of up to 29 cubic metres?**

- Yes
- No ✓
- Don't know

**Please provide your reasons.**

While The IOA understands the desire to enable efficient EV charging infrastructure rollout, there are some reservations amongst members about allowing equipment housing or storage cabinets up to 29 cubic meters to be installed as permitted development without any prior review of noise impacts.

A 29 cubic meter enclosure is a substantial size that could potentially accommodate a wide range and number of noise-generating sources like inverters, transformers, compressors, and fans. The larger the housing, the greater the scope for noisier electrical and mechanical equipment installations.

Given this diversity of potential noise sources, it becomes increasingly important that there is an ability to review proposed large housing/cabinet installations near noise-sensitive residential areas on a case-by-case basis. This would allow identifying any higher-risk noise situations and applying appropriate conditions or mitigation requirements.

Without any prior approvals process for assessing noise, there is a possibility that large housing units acting as significant sound sources could get installed in inappropriate locations, leading to entirely preventable noise complaints and disturbances for neighbours.

The IOA would suggest that if the 29 cubic meter size allowance is to proceed as permitted development, it should still incorporate a mechanism for local authorities to require a basic acoustic assessment where housing is proposed in noise-sensitive areas. This prior approval procedure would identify installations requiring setback distances, enclosure performance specifications, or potentially deem the location unsuitable if mitigation is impractical.

Balancing charging infrastructure growth with protecting residential amenity from noise impacts should be an important consideration. Some form of prior approval pathway would provide a sensible control measure for larger housing/cabinet installations.

**Q.43 Do you think that any of the proposed changes in relation to the Class D and E of Part 2 permitted development right could impact on: a) businesses b) local planning authorities c) communities?**

- Yes ✓
- No
- Don't know

**Please provide your reasons. It would be helpful if you could specify whether your comments relate to a) business, b) local planning authorities, or c) communities, or a combination and which right or rights your comments relate to.**

From the perspective of the IOA, several of the proposed changes raise concerns about potential noise impacts on nearby businesses, local authorities, and residential communities if not implemented with appropriate safeguards.

While supporting EV charging infrastructure growth, permitting these types of installations without any mechanism for local authorities to review noise aspects could directly impact:

a) Businesses - Businesses who invest in EV charging under permitted development may be hit by unexpected mitigation costs if the EV chargers were subsequently shown to cause a nuisance.

b) Local Authorities - Increased noise complaint volumes and enforcement costs related to preventable installations. This should be balanced against the need to process prior approval submissions.

c) Communities - Noise nuisance and loss of amenity for residents from inappropriate siting of noisy charger equipment with no ability to address issues.

The IOA recommends that, if these changes proceed, prior approvals provisions are included to allow local authorities to require basic noise impact assessments and apply conditions or restrictions for installations posing noise risks to sensitive receptors.

**Q.44 Do you agree that the limitation that an air source heat pump must be at least 1 metre from the property boundary should be removed?**

- Yes ✓
- No
- Don't know

**Please provide your reasons.**

The IOA agrees that removing the blanket 1 metre limitation could be reasonable. In addition, the Microgeneration Certification Scheme (MCS) noise limit and associated noise assessment procedure (i.e. the noise propagation model, with allowances for barriers and distance) for heat pumps should be based on scientific evidence and research.

In principle, having a fixed setback distance is an overly simplistic proxy for controlling noise impacts. Best practice on the siting of the heat pump should be considered, including avoiding structure-borne noise. A performance-based approach allowing heat pumps to be situated closer to boundaries, as long as they comply with an appropriate noise criterion at nearby receptors, aligns better with standard noise control practices.

**Q.45 Do you agree that the current volume limit of 0.6 cubic metres for an air source heat pump should be increased?**

- Yes ✓
- No
- Don't know

**Please provide your reasons. If you have answered yes, please provide examples of a suitable size threshold, for example, in cubic meters or a height limit, including any supporting evidence.**

The IOA agrees that removing the existing 0.6 cubic meter volume restraint would be beneficial for enabling air source heat pump manufacturers to explore a wider range of product designs that could incorporate improved noise control measures.

Larger casing volumes provide more internal space for techniques like better vibration isolation, enhanced exhaust silencing, increased fan/compressor encapsulation and other acoustic louvring. It would also allow noisier units to be acoustically enclosed to enable use in more challenging locations, such as terraces, tenements, and flats.

**Q.46 Are there any other matters that should be considered if the size threshold is increased?**

- Yes ✓
- No
- Don't know

**Please provide your reasons.**

Although this is difficult to quantify if unit sizes increase significantly beyond the current limit, the IOA wishes to highlight that the basic noise propagation assumptions underlying the MCS 020 Planning Standard's assessment methodology become increasingly invalid.

The MCS 020 procedure treats all air source heat pumps as quasi point sources for calculating noise levels at receiver locations. While a reasonable simplification for very compact units, this assumption breaks down as installations become larger distributed sources.

For larger sized units, factors like casing radiation, exhaust characteristics, and internal configurations make simplistic point source modelling inadequate for accurate noise predictions. At these scales, more complex calculations incorporating source directivity and dimensions are required.

As directivity information is not currently available from manufacturers, as it does not form part of the standardised test procedure, it is not practical to mandate all these changes in one step. A practical first step would be to systematically investigate and update the noise propagation model. This would not require a change to the laboratory sound power test procedures, which is something that will require international agreement and therefore take time.

Without updating the noise modelling approach there is a risk that the current MCS 020 methodology could increasingly under-predict actual noise levels for larger air source heat pumps installed near property boundaries if the volume limit is removed.

The IOA recommends that if the volume limit is raised to accommodate advanced noise control designs, it should be accompanied by a revision to the noise assessment calculations to implement more appropriate modelling techniques for larger units.

Expanded noise measurements and modelling of diverse large air source heat pump configurations would be needed to develop and validate these improved propagation calculation procedures.

Provided the noise assessment methods are refined accordingly, the IOA supports eliminating the volume limitation to unlock further product noise reductions through innovative design approaches by manufacturers.

**Q.47 Do you agree that detached dwellinghouses should be permitted to install a maximum of two air source heat pumps?**

- Yes ✓
- No
- Don't know

**Please provide your reasons.**

The IOA agrees that detached dwelling houses should be permitted to install a maximum of two air source heat pumps, provided that safeguards are put in place to control noise emissions. Specifically, it is recommended that the existing MCS noise limit for a single air source heat pump should be applied to the combined noise emissions of both units serving the dwelling house to avoid a cumulative impact being caused.

The current MCS Planning Standard, which installations under permitted development must comply with, sets a clear noise limit to protect neighbouring properties from excessive noise impact. However, permitting two heat pumps on a single dwelling introduces the potential for higher cumulative noise levels that could exceed this threshold when combined.

To mitigate this risk, the IOA proposes that where two air source heat pumps are installed on a detached house, the noise assessment and compliance requirements should consider the aggregate maximum noise emissions from both units operating simultaneously. In practice, this would mean that the combined noise level from the two heat pumps must not exceed the adopted MCS noise permitted level. The methodology for combining the noise level from two heat pumps and the nearest sensitive receptors would need to take into account if the two heat pumps were installed as a cascade system or separately on different areas of the dwelling.

This approach strikes an appropriate balance between permitting greater flexibility for homeowners to install low-carbon heating systems and managing the potential noise impact consequences on neighbours. It will not deal with the noise impact on the homeowner benefiting from the unit, which remains a gap in the process.

**Q. 48 Do you agree that stand-alone blocks of flats should be permitted to install more than one air source heat pump?**

1. Yes
2. No ✓
3. Don't know

**Please provide your reasons.**

While supportive of measures to accelerate heat pump deployment, the IOA has reservations about allowing unrestricted installations of multiple air source heat pump units on blocks of flats through permitted development rights alone.

Installing multiple separate air source heat pumps requires a mechanism to assess the cumulative noise impact on surrounding receptor locations. The current MCS noise limit applies to each individual heat pump, but does not explicitly address or limit the compounded effect when numerous units are operating simultaneously.

Without provisions for assessing this cumulative noise level from all heat pumps at each receptor point, there is a risk of unintended noise nuisance and disturbance situations arising for nearby residents as system deployments scale up unconstrained within a block of flats.

Ideally, for multi-tenant developments like flat blocks, the IOA recommends that a single centralised heating and/or domestic hot water system design be used to comply with noise limits at all receptors, rather than allowing ad-hoc individual installations from each flat.

If allowing more than one air source heat pump per block of flats, the IOA recommends that this should still be subject to a form of prior approval by local authorities specifically reviewing the potential cumulative noise impact using prescribed methodology within the updated MCS 020 Planning Standard.

This prior approval process could evaluate the positioning and combined noise levels of all proposed installations, with the ability to require alternative locations, noise mitigation or other conditions to ensure the aggregate noise remains within acceptable levels for noise-sensitive receptors in the area before granting approval.

While potentially more involved than outright permitted development, this system balances heat pump proliferation whilst considering the cumulative noise effects of multi-unit deployments on flat blocks.

Overall, The IOA cautions against allowing unlimited installations without provisions like prior approval to manage the cumulative noise for the benefit of residents. A single system overseen by a single entity like the freeholder may ultimately be preferable to control noise for multi-tenant scenarios.

**Q.49 Do you agree that the permitted development right should be amended so that, where the development would result in more than one air source heat pump on or within the curtilage of a block flats, it is subject to a prior approval with regard to siting?**

- Yes ✓
- No
- Don't know

**Please provide your reasons.**

The IOA supports amending the permitted development right to require prior approval for siting in cases where more than one air source heat pump is proposed on or within the curtilage of a block of flats.

Allowing multiple air source heat pumps in close proximity to residential dwellings introduces the potential for adverse noise impacts, especially in the context of a higher-density development like a block of flats. The cumulative noise emissions from several heat pumps could create an unacceptable acoustic environment for residents if not properly assessed and controlled.

A prior approval process specifically for choosing the location for air source heat pumps is an appropriate and proportionate mechanism to evaluate and mitigate this risk. It would allow the local authority to consider the specific context of the proposed development, including the number and positioning of heat pumps, proximity to noise-sensitive receptors like bedroom windows, and the overall noise levels likely to be experienced by residents.

Where the prior approval assessment indicates that the siting of multiple heat pumps would result in unacceptable noise exposure, the local authority could require alternative positioning, screening, or other mitigation measures as a condition of approval. This would provide a safeguard for residents' health and quality of life.

Furthermore, a prior approval for siting aligns with the overarching aims of the Noise Policy Statement for England, which seeks to avoid significant adverse noise impacts and mitigate and minimise adverse impacts through the planning system. It is a targeted intervention that provides necessary oversight for installations with greater risk of noise disturbance, while still preserving a permitted development right that streamlines the process compared to a full planning application.



**Q.50 Are there any safeguards or specific matters that should be considered if the installation of more than one air source heat pump on or within the curtilage of a block of flats was supported through permitted development rights?**

- Yes ✓
- No
- Don't know

**Please provide your reasons.**

If the installation of more than one air source heat pump on or within the curtilage of a block of flats is to be supported through permitted development rights, it is crucial that appropriate safeguards are put in place to control cumulative noise impacts. The key matter that must be considered is the potential for the combined noise emissions from multiple heat pumps to create an unacceptable acoustic environment for residents.

In a higher-density development like a block of flats, the close proximity of multiple noise sources to dwellings significantly increases the risk of adverse effects. This could include sleep disturbance, interference with speech communication and general annoyance, all of which can have negative consequences for health and quality of life.

To avoid these outcomes, the IOA strongly recommends that a prior approval process for noise control is implemented as a safeguard. This would provide the local authority with oversight to assess the specific circumstances of each proposed installation, taking into account factors such as the number and siting of heat pumps, their cumulative noise emissions, and the proximity to noise-sensitive receptors.

Through the prior approval process, the local authority could ensure that the cumulative noise impact is properly evaluated using robust acoustic assessment methods. Where the assessment indicates an unacceptable noise exposure, the local authority should have the power to require mitigation measures, such as improved acoustic screening, alternative siting or low-noise equipment selection, as a condition of approval.

Additionally, it may be appropriate to set a maximum limit on the number of heat pumps that can be installed in a block of flats under permitted development. This could help to constrain the scale of installations to a level where noise risks can be effectively managed through the prior approval process.

**Q.51 Do you have any views on the other existing limitations which apply to this permitted development right that could be amended to further support the deployment of air source heat pumps?**

- Yes ✓
- No
- Don't know

**Please provide your reasons.**

The proposal to remove the limitation on using air source heat pumps only for heating should be considered carefully. Based on the experience of IOA members, the cooling mode of an external heat exchanger can often have a lower sound power level than the heating mode; however, allowing cooling modes will lead to air source heat pumps being potentially used at different times of the day, particularly at times of the year when the weather is warmer, and people will be using their gardens for relaxation.

The current MCS noise limit applies 1m from the centre point of the window or door of a neighbour's nearest habitable room (which may well be open in the summer months). This implies that the noise limit is mainly to protect the amenity of people indoors. It may be appropriate to consider a different noise criterion if air source heat pumps are likely to be used for cooling, considering factors such as indoor vs. outdoor criteria and the likelihood of neighbours' windows being open. In the UK, BS 4142 is used to assess the noise impact of items of heating, ventilation and air conditioning plant used for commercial purposes on residential receptors outdoors. In most areas of the country, a neighbour's air source heat pump would be unlikely to result in a positive outcome if assessed using this standard.

The IOA recommends that appropriate noise limits and assessment methodologies be researched prior to removing the limitation on air source heat pumps installed using permitted development rights that they must only be used for heating.

**Q.52 Do you think that any of the proposed changes in relation to the Class G of Part 14 permitted development right could impact on: a) businesses b) local planning authorities c) communities?**

- Yes ✓
- No
- Don't know

The IOA believes that the proposed changes to the Class G of Part 14 permitted development right, which governs the installation of air source heat pumps on domestic premises, could have impacts on businesses, local planning authorities, and communities.

a) Businesses

The proposed changes to the permitted development right, particularly the removal of size restrictions on air source heat pumps, could have significant positive impacts for businesses in the sector.

Currently, the permitted development right limits the volume of an air source heat pump's outdoor compressor unit (including any housing) to no more than 0.6 cubic metres. This constraint has been identified as a barrier to the development of quieter heat pump models for the mass market. By removing or increasing this size limit, manufacturers would have greater flexibility to innovate the acoustic design.

For example, with the ability to increase the size of the heat pump's evaporator and fan, manufacturers could potentially develop units that operate at lower speeds while still maintaining performance. Slower fan speeds can significantly reduce noise emissions, making the units more acoustically acceptable in residential settings. Similarly, larger housings could accommodate improved acoustic insulation and attenuation measures.

Removing the size constraint would also give manufacturers the design freedom they need to prioritise noise reduction alongside other performance characteristics. This could lead to the development of a new generation of quieter, more neighbour-friendly heat pump products.

Moreover, the proposed changes to the permitted development rights, such as potentially allowing multiple units on a single property and removing the 1 metre boundary distance requirement, could significantly increase the market demand for heat pumps. By making it easier for households to install these systems, the changes could drive up adoption rates.

This growing market presents a strong incentive for businesses to invest in heat pump technology, including in research and development aimed at improving acoustic performance. With a larger potential customer base, manufacturers may be more willing to commit resources to creating quieter, more efficient, and more cost-effective heat pump solutions.

The increased demand could also stimulate competition and innovation among suppliers and installers, leading to improved installation practices that prioritise noise control. This could include the development of better acoustic screening and vibration isolation solutions.

However, to fully realise these benefits, it is crucial that the amended permitted development rights include clear and robust noise control measures. By setting achievable noise limits and providing a level playing field for manufacturers, the regulations can drive innovation towards quieter products while still facilitating wider heat pump deployment.

Removing size constraints on air source heat pumps through the permitted development right could unlock significant opportunities for businesses to develop quieter, more neighbour-friendly products. Combined with the potential for increased market demand, this could accelerate investment and innovation in the sector, leading to better acoustic design and installation practices. By creating a supportive regulatory framework, the Government can harness the ingenuity of industry to deliver heat pump solutions that are both sustainable and acoustically acceptable.

#### b) Local Planning Authorities

The suggested amendments to the permitted development rights would have direct implications for local planning authorities. Removing the 1 metre boundary distance rule and potentially allowing multiple heat pumps on a property could lead to a higher number of installations overall. This may increase the workload for planning departments in terms of registering and monitoring these developments. The workload may also be increased by requiring prior approvals for multiple air source heat pumps within the curtilage of a block of flats.

Moreover, if the proposed changes lead to a rise in noise complaints from poorly sited or cumulatively noisy heat pump installations, local authority environmental health officers may experience an increased burden in investigating and enforcing against statutory noise nuisances. It is vital that any amended permitted development right provides clear mechanisms for local authorities to assess and control noise impacts through tools like prior approval or standardised noise limits.

#### c) Communities

The potential impacts on communities are primarily related to noise. While the proposed changes aim to facilitate the wider adoption of low-carbon heating, which could contribute to climate change mitigation and lower energy bills, it is essential that this doesn't come at the cost of acoustic amenity.

Removing the 1 metre boundary distance requirement could lead to heat pumps being sited closer to neighbouring properties, which may affect the neighbours' perception of the installation (non-acoustic factors). Similarly, allowing multiple heat pumps on a single property introduces the risk of cumulative noise impacts affecting nearby residents.

To mitigate these risks, it is crucial that any amended permitted development right includes robust noise control measures, such as applying the MCS noise limit to the combined impact of multiple units, requiring prior approval for noise-sensitive installations. With appropriate safeguards in place, the proposed changes could strike a balance between supporting the transition to low-carbon heating and protecting communities from unacceptable noise disturbance.

The IOA believes that the proposed amendments to the permitted development rights for air source heat pumps could have significant impacts on businesses, local planning authorities, and communities. While there are potential benefits in terms of facilitating heat pump deployment, it is vital that any changes are accompanied by effective mechanisms to assess and control noise impacts. By embedding acoustic considerations into the permitted development framework, the Government can support the wider rollout of this sustainable technology while still safeguarding the health and quality of life of communities.