Sustainable energy supply chain event

The Scottish Government's consultation on permitted development rights for air source heat pumps

West Lothian College, Livingston, building pavilion B, ground floor 31 July 2015

Perspectives

Manufacturer - Panasonic Heat – Darren Reis
Getting more activity in the retrofit market assists research and development activities. Loudest units from Panasonic are in the region of 55 decibels (sound power). The installation process is fragmented and has room for efficiencies to be made. Manufacturers could provide noise frequency levels for the purposes of mapping against Noise Rating 20 curve but noise frequency is influenced by installation, making each installation unique. In current units there is as much noise from air flow as there is from fan/compressor noise.

Installer – ECO Heat Renewables – Jim Russell
Introduced the delegates to a typical installation story of an older person living in a suitable property and currently using oil fuel for heating/hot water. Ultimately the annual cost for changing to air source heat pump would be the same as oil but there would be security of supply, removal of the threat of oil theft from the property and there would be sufficient/plenty of space heating and hot water rather than the person being concerned about using too much oil. The main problem is the length of time from technology selection to installation plus some irretrievable up-front fees (planning, EPC). It could take up to 6 months to achieve installation of an air source heat pump because of the paperwork (physical installation takes only a couple of days at the most), where as a replacement oil system could be installed in a matter of days.

Environmental Health Officer – Joe May – Aberdeenshire Council

Speaking of his own experiences, rather than expressing the views of the Council, Joe confirmed that of the 18 air source heat pump applications made in the area since 2004, three complaints had been made on noise grounds and none of them were upheld agains the unit, in one case it was a mechanical heat recovery fan which was responsible. The profession recognizes the carbon benefit and the impact of the technology of reducing fuel poverty. The profession historically has accepted that people need to heat their homes and that there can be a loss of amenity for neighbours as a result. Gas fired systems are not without noise and oil fired systems can be noisier than gas.

Microgeneration Certification Scheme – Kunal Sharma

Kunal introduced delegates to the background of the Microgeneration Certification Scheme and the 2011 planning standards (MCS 020). The more recent review of noise levels within the standard was highlighted, and did not recommend that the 42 decibel target level should be changed. The assessment position of the target noise level was explained and it was also explained that the 40 decibel background noise that is used by MCS planning standard was an agreed level thought to represent the background noise levels in most situations where air source heat pumps would be installed. Kunal indicated that it was always the intention to keep the planning standards under review and MCS is happy to work with users in Scotland to ensure the approach is relevant.

Round Table Discussion 1: Experiences of Air Source Heat Pumps

Environmental Health Officers

- Common use of Noise Rating 20 curve for assessing/limiting noise impacts of air source heat pumps. How consistent is this with Microgeneration Certification Scheme planning standards?
- Insufficient information provided to EHOs from manufacturers, installers and home owners on the likely noise impacts of air source heat pumps.
- Could manufacturers provide information to support mapping against Noise Rating 20 curve based on a standard type of installation?
- Change in sound/noise levels can be a problem
- Can machine design or installation design reduce sound power and noise frequencies?

- Neighbours often complain to Environmental Health Officers before speaking to their neighbour, complaints are sometimes caused by long standing disagreements between neighbours rather than actual problems of an air source heat pump.
- EHOs need to build up experience of the technology
- Is district heating an alternative for new build properties?

Manufacturers

- Microgeneration Certification Scheme product certification is onerous (as small product changes require complete product re-certification)
- Acoustic barriers can be used but can affect performance and air intake
- Manufacturers do work with Environmental Health Officers
- Air source heat pumps are not as bad as other locally specific sources

Installers

- Only takes 3 days to install an air source heat pump system
- Current planning process is positive but time consuming.
- Some unscrupulous installers (although Microgeneration Certification Scheme assists with identifying these)
- Environmental Health Officers often the problem rather than planning officers (acknowledgment that noise conditions will generally originate from Environmental Health Officers rather than planners.
- Current main problems are noise and the 100m restriction on permitted development rights
- Suggest adoption of the approach in England, does it work and is it right for Scotland?
- 0.02% of complaints against air source heat pumps were upheld in England (Freedom of Information request of Councils in England), so a very low number.
- No standard that planners/EHOs are working to and a standard approach would make it quicker to turn around applications; improve the quality of systems installed; and avoid complaints post installations.

- Planning timescales make it difficult/impossible to sell heat pumps in a ‘distress purchase’ (i.e. when a customer is looking to immediately replace a broken existing heating system)
- Some installers already using Microgeneration Certification Scheme planning standards and provide the output to Environmental Health Officers
- Grid connection problems
- Social housing sector is a key driver for the industry
- Air source heat pumps generally exceed customer expectations

Planners

- Lots of planning applications for air source heat pumps require amendments after the initial submission (suggests some planning aspects have been missed during the design phase)
- Generally supportive of change towards greater permitted development rights
- Use of Microgeneration Certification Scheme 020 helps
- One council approach relates more to Registered Social Landlords than other applicants.

Roundtable discussion 2: Scottish Government Proposals for Permitted Development Rights for Air Source Heat Pumps

Restriction of permitted development rights to one per building

- Less good for flats
- Less good for landlords/factors with control of blocks of flats and looking to install the units to more than one property in the block
- Larger properties may require two air source heat pumps
- Need to separate out aesthetic and noise aspects

Restriction of installation to the rear of a building in a National Park

- Some support
- Need to clearly define ‘rear of a building’

Restriction of installation to the ground floor level for buildings containing flats

- Supported
- Greater impacts on the ground floor flats
- Should installation at upper levels also be permitted development?

1 meter bubble

- Units can't be located outside of the meter and sometimes that is a preferable location
- Need access to maintain units, could mean installations exceed the 1 meter bubble
- Some installations won't fit within a meter of the exterior wall
- Suggest change this restriction to 'reasonable distance'
- Should also extend to out-buildings and garages
- Does not allow as many siting options in order to deal with noise
- Is the restriction to 0.6 cubic metres for the heat pump housing set in England (or some other dimension) also applicable in Scotland?
- Is the restriction to ground floor level at the side to protect views from the street? (Post meeting note – more to protect the overall street scene, rather than just the impact on buildings in isolation)
- Does the elevation restriction at front and side work agains the 1 meter bubble approach (Post meeting note, it is a restriction beyond the current approach to the 1 meter bubble for alterations to a dwelling house that don't extend its floor area)
- Removal of the current 100m restriction could see the majority of installations be achieved under permitted development rights.

Compliance with Microgeneration Certification Scheme

- Some support
- Compliance already required in order to obtain Renewable Heat Incentive payments (implication is that the formal legislative link in planning may not be required)
- Environmental Heath Officers not fully aware of the scheme and need further information about it
- If there is no noise problem following the application of MCS 020 could the permitted development right extend to within 1m of the boundary?
- The full methodology should be explained to Environmental Health Officers in the background to the permitted development rights
- How does it relate to oil fired systems? (post meeting note - MCS 020 does not relate to oil fired systems)
- Incorporate the review from England (post meeting note - the review on the noise threshold has been considered in bringing forward these proposals)
- Where did the 42 decibel target noise level come from? (post meeting note – as set out in Kunal Sharma's presentation, UK Ministers set the level following consultation)
- Would be most useful if the approach is consistent across the UK.

Restriction to domestic properties

- Supported

Amenity Condition

- Some support
- Is this necessary? The 1 meter bubble and other siting restrictions take care of amenity.
- Will this be enforced?

Removal condition

- Supported
- What is the time limit for removal?
- Will this be enforced?

Other garden buildings not attached to the dwellinghouse

- Installation on out-buildings and garages is common in rural areas but would not benefit from permitted development rights.

Restriction to heating (not allowing cooling)

- Supported

Restrictions for listed buildings and world heritage sites

- Supported

Other

- Seeking changes to legislation as soon as possible

Summary views by sector:

Environmental Health Officers

- Some support
- Further information wanted

Manufacturers

- Generally supportive

Installers

- Generally supportive