Consultation on the Review of the Home Energy Conservation Act 1995 (HECA)

Response from National Energy Services
January 3rd, 2008

About National Energy Services

National Energy Services (NES) owns and operates both the NHER scheme and SAVA.

The NHER is the UK's first and largest energy rating scheme, established in 1990. It provides software, training, accreditation, research and consultancy for organisations and individuals involved with improving the energy efficiency of homes. The NHER's members are local authorities (LAs), builders, housing associations, consultants, architects, surveyors and energy companies. In a consultancy role, we have carried out energy ratings of over a hundred housing stocks over the past ten years for LAs and housing associations. We have undertaken HECA reporting on behalf of LAs.

NHER and SAVA provide software and training and operate Accreditation and Certification Schemes for Domestic Energy Assessors and Home Inspectors respectively.

Summary

We believe that HECA should be repealed but must be replaced with a SAP reporting requirement over and above the forthcoming National Indicators. SAP ratings are central to internal and external LA reporting of domestic energy efficiency and should not be withdrawn as a reporting requirement.

Consultation Questions

1. What has been your experience of the success of HECA in meeting its objectives?

Positive outcomes due to HECA:

- Most LAs have had one person with a designated responsibility for energy efficiency in all local homes
- Many minds have been focussed on improving local energy efficiency
- Local networks and forums have been established, to pursue a common objective
- The Energy Efficiency Commitment, Warm Front etc have been used by LAs more effectively than would otherwise have been the case
- Innovative work has been undertaken at a local level, including educational activities and provision of energy advice

- LAs can assess their own progress year on year and therefore monitor success of various programmes and identify any need for further work

However, it is disappointing that reported figures are not comparable between LAs and unofficial league tables are therefore not credible. HECA no longer fits well with LA work on energy efficiency and its value has been much reduced. It is therefore timely to revise the legislation.

2. Do you think HECA promotes the Government's domestic energy efficiency objectives in an effective and proportionate manner?

When it was established, HECA had a marked impact on domestic energy efficiency and the ability of LAs to make improvements. At the time it was written, the Act was groundbreaking. It was defined as clearly as was possible within the existing framework. However, since other programmes (EEC, Warm Front etc) have grown, what is required of LAs and what legislation can do to help the process has changed dramatically. Momentum has now been gained and more accurate reporting of the good progress being made by LAs should now be a priority. Therefore HECA no longer promotes the Government's domestic energy efficiency objectives in an effective and proportionate manner.

Government is now changing the reporting of energy figures across other programmes to be in terms of carbon rather than units of energy. HECA does not report in this way and there is therefore an opportunity to bring it more closely in line with other reporting.

3a. Do you support the findings of the HECA review?

In this section we have commented on what we believe to be the main findings of the report, shown in bold.

We support the consensus among stakeholders that **HECA needs to be strengthened or replaced by an outcome based system focussed on reducing carbon emissions** (in line with Government reporting of other programmes, as described in (2)).

Ranking of LA performance would be very beneficial in improving domestic energy efficiency as it would stimulate demand from the public and competition between councillors. Although currently HECA figures should not be compared across different LAs, some well respected organisations in the industry have created league tables and these have been seriously considered by some people as in theory they are so useful.

In devising a way of ranking LAs against their performance under the replacement of HECA, another point in the consultation must be considered; **housing stock differs by each LA and thus it should be recognised that different levels of improvement will be possible according to local circumstances.** Each LA target must be realistic and achievable.

It should be acknowledged that some LAs have already achieved large savings under the existing HECA regime, or even beforehand. Also, some LA areas include a large number of properties with solid walls – so improvements in energy efficiency will be more difficult and expensive. In either of these examples, LAs would have much less potential to achieve additional savings. This was a serious concern of LA representatives at the HECA workshop held in December 2006. Energy efficiency improvements should obviously be required where appropriate, but the relative targets for different LAs must be appropriate.

It may be appropriate to establish a "potential" average SAP rating for each LA and to rank them on their progress from the rating in the baseline year towards this target. This is possible using currently available energy rating software. As the "potential" rating changes

over time (with technological developments etc adding to what can be achieved cost-effectively) LAs could be driven towards a more stretching yet realistic target over time. Annual recalculation of the current and "potential" SAP rating of all housing in a LA area would mean that new dwellings could be taken account of, in a way that the existing HECA has been unable to do.

LAs who wish to act sooner will benefit from a reduced gap in future, between actual and "potential" SAP. LAs who are slower to act will simply postpone the required improvements into later years. A clear definition of the "potential" rating would obviously need to be defined, but this would be worthwhile. One option is to use the 1% sample survey requirement of NI 187 (if a full RDSAP[1] EPC is produced) to obtain an average SAP rating and "potential" SAP rating. This would also provide a baseline figure.

According to the consultation document, SAP ratings are not expected to stimulate further work by LAs to tackle climate change. We disagree and believe that SAP ratings are well understood and are a good benchmark for domestic energy efficiency and for assessing the long-term savings from improvement works. The current plans for the National Indicators drastically reduce the importance of SAP rating figures as they are only used in NI 187 (to estimate fuel poverty). If this is allowed to happen then current levels of investment in measures such as insulation and heating improvements may also decrease dramatically.

The energy reporting under NI 186 (per capita reduction in CO_2 emissions) is currently proposed to be based on total, actual energy use, including housing, business and road transport emissions. Energy consumption for housing (from which emissions can be derived) would be reported by utility companies.

The influence that local authorities have over emissions from its own housing stock is far greater than other emissions included in this indicator – but increases in energy use in housing could easily be masked by reductions in other areas. Thus this indicator does not represent a replacement for SAP reporting or HECA.

It is vital that clear indicators are agreed with LAs; the proposed NI 186 would not provide an effective way of managing the process of reducing CO_2 emissions locally. We appreciate that Government cannot currently dictate the make up of local indicators. However, ways need to be found of supporting and encouraging authorities to develop effective local indicators that support local action. With the loss of BVPI 63, there is a real danger of reducing rather than increasing the priority of domestic energy efficiency, as reported by SAP ratings.

The consultation document states that SAP reporting does not stimulate action on encouraging behavioural change and this is considered a major shortcoming. It must be recognised that basic measures undertaken on the building fabric have a guaranteed energy saving which far outweighs the benefits of energy advice. An estimate for energy savings achievable from behavioural change from the EST is 7.9% (http://www.berr.gov.uk/files/file37311.pdf). To estimate energy savings from simple measures undertaken on the building fabric, we have modelled a 1930s semi detached house. With very few energy efficiency measures installed the energy use would be around 579 kWh per year. By installing only 4 measures (250m loft insulation, cavity wall insulation, a condensing boiler and a hot water cylinder jacket) the energy reduces to 2,585 kWh – i.e. a 53% saving. Full energy modelling data in provided in the RDSAP data sheet in the appendix.

To avoid unwanted reporting requirements remaining in place in the new reporting framework, a clear, new SAP reporting requirement could be imposed at the same time as the repeal of HECA. An additional requirement to report on the provision of advice may also be imposed, but should not detract from the SAP figures.

We agree that **measurement needs to be auditable**. It is timely to impose stricter quality monitoring onto HECA or its replacement. With the introduction of Energy Performance Certificates (EPCs) there has been massive growth in the volume and quality monitoring of energy assessments of dwellings. EPCs are already required each time a dwelling is marketed for sale and this requirement will be extended to include rented properties in October 2008. EPC data (using RDSAP) is monitored and should therefore be leveraged and used for energy reporting.

Independent compilation of figures would ensure consistency but this would be at the expense of the empowerment provided to LA officers by them writing their own reports.

To **ensure alignment with other policy objectives such as fuel poverty**, the replacement for HECA should complement the planned National Indicators (NIs). NI 187 is entitled "Tackling fuel poverty - People receiving income based benefits living in homes with a low energy efficiency rating" and can only measure performance against SAP rating improvements for those in receipt of benefits. There will be many households in fuel poverty who are not in receipt of income based benefits and/or with a SAP rating of more than 30. The new reporting framework should monitor a wider range of criteria to ensure that the proxies used for this National Indicator remain relevant. A less defined but more wide-ranging trend for fuel poverty could be provided by the reporting framework replacing HECA.

The **repeal HECA** option considered in the consultation document assumes that all the reporting resource would be redirected at installing measures, should it be implemented. However, without sufficient reporting it will be impossible to monitor progress and therefore for LA officers to remain aware of what measures work best in their area. Therefore some of the perceived financial savings would be lost.

3b. Is there any additional information we should consider?

"National Indicators for LAs and LA Partnerships" are being consulted upon at exactly the same time as this review is taking place. These are referred to in the HECA consultation document but the energy related indicators (NI 185, 186 and 187) must be considered in detail as part of this consultation as well as in the context of the other indicators, to ensure that the work undertaken towards each is complementary. A very important question that has arisen out of the new indicators is whether or not SAP reporting will be reported or at least recorded, as an absolute requirement. Should this not be the case then HECA would certainly need to be replaced by something which incorporates this well-established criterion. At the same time, duplication of effort must be avoided.

4. Which of the options outlined in Section 6 and in the accompanying Impact Assessment on the future role of HECA do you support?

To conclude the discussion above, we support the option to repeal HECA and also to replace it with a requirement to report on SAP figures.

National Energy Services
January 3rd, 2008

Appendix – Energy modelling data

Part 1 – without building fabric improvements

Energy Data Input
GENERAL DETAILS

Type of Property	House
Detachment	Semi detached
Internal / External measurements	External
Number of storeys	2
Rooms in roof?	No
Number of extensions	0
Mains gas available?	Yes

Energy Data Input
CONSTRUCTION

Main property age	1930 to 1949
Main roof	Pitched Insulation at Joists (None)
Main wall	Cavity wall Insulation As built
Number of habitable rooms	5
Unheated rooms present?	No

Energy Data Input
DIMENSIONS

	Area (m^2)	Height (m)	Heat Loss Perimeter (m)
Main Floor 1	43	2.4	18.6
Main Floor 0	43	2.5	18.6

Energy Data Input
OPENINGS

Total glazed area	Normal
Proportion double glazed	50
Double glazing installed	Pre 2002 double glazing
Number of open fireplaces	1
Mechanical ventilation present	No

Energy Data Input
HEATING & HOT WATER

Electricity meter type	Dual
Heater type	Boiler
Boiler type	Regular
Fan flue	Fan
Open flue?	Open flue
Fuel	Mains gas
Primary system	Pre 1998 - High or unknown thermal capacity
Controls	Programmer and room thermostat
Emitters	Radiators
Secondary Heating	Electric panel, convector or radiant heaters
Water Heating	From main system (Gas)

Energy Data Input
CYLINDER, SOLAR & LIGHTS

Water heating storage	Normal (90-130) cylinder with no insulation.
Has cylinder thermostat?	No
Solar panels supply some water heating	No
Photovoltaic array	Not present
Low energy lights	No low-energy lights present

Energy Data Input
CONSERVATORIES

Non-separated conservatory present?	No

Part 2 – with building fabric improvements

Energy Data Input
GENERAL DETAILS

Type of Property	House
Detachment	Semi detached
Internal / External measurements	External
Number of storeys	2
Rooms in roof?	No
Number of extensions	0
Mains gas available?	Yes

Energy Data Input
CONSTRUCTION

Main property age	1930 to 1949
Main roof	Pitched Insulation at Joists (250mm)
Main wall	Cavity wall Filled cavity
Number of habitable rooms	5
Unheated rooms present?	No

Energy Data Input
DIMENSIONS

	Area (m²)	Height (m)	Heat Loss Perimeter (m)
Main Floor 1	43	2.4	18.6
Main Floor 0	43	2.5	18.6

Energy Data Input
OPENINGS

Total glazed area	Normal
Proportion double glazed	50
Double glazing installed	Pre 2002 double glazing
Number of open fireplaces	1
Mechanical ventilation present	No

Energy Data Input
HEATING & HOT WATER

Electricity meter type	Dual
Heater type	Boiler
Boiler type	Condensing boiler
Fan flue	Fan
Open flue?	Open flue
Fuel	Mains gas
Primary system	Post 1998 - Condensing, auto ignition
Controls	Programmer and room thermostat
Emitters	Radiators
Secondary Heating	Electric panel, convector or radiant heaters
Water Heating	From main system (Gas)

Energy Data Input
CYLINDER, SOLAR & LIGHTS

Water heating storage	Normal (90-130) cylinder with 50mm spray foam insulation.
Has cylinder	No

thermostat?	
Solar panels supply some water heating	No
Photovoltaic array	Not present
Low energy lights	No low-energy lights present

Energy Data Input CONSERVATORIES

Non-separated conservatory present?	No