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Ofgem's response to the DECC Heat and Energy Saving Strategy consultation

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Target audience: This document is addressed to DECC, but may be of interest to renewable and low carbon energy generators, environmental bodies and agencies, energy suppliers, energy market participants, customers and other interested parties.

Overview:

In this document we set our response to the Government's Heat and Energy Saving Strategy consultation on measures to deliver a 30 percent reduction in emissions from households by 2020. We agree with the main thrust of the strategy - there is still scope for further energy efficiency measures to be one of the most cost effective ways to meet the UK's renewable energy and carbon emissions reduction targets.

Now is the time to think strategically about the best way to accomplish this ambition, which may involve wholesale changes to delivery and finance models. Government will need to carefully consider who pays and who benefits from energy saving measures, giving particular attention to households in or on the edge of fuel poverty. We welcome the review of delivery models and would advocate approaches which reduce barriers to more customer-focussed new entrants into the energy service market. We are working to encourage network companies to facilitate moves to a low carbon economy through our price control reviews, although we have concerns with the proposals for electricity distribution companies to finance a major energy efficiency programme, We look forward to participating in the heat markets forum.

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Context

Tackling the cause and effects of climate change is one of the most significant global challenges we currently face. Households are responsible for a significant proportion of greenhouse gas emissions in the UK (~145 million tonnes of carbon dioxide equivalent in 2006), and therefore have a role to play in meeting this challenge. The reduction of household energy use is thus a priority for the Government at both a national and European level.

The UK Government has put in place a number of measures to encourage the development of energy efficiency measures and the deployment of renewable and low carbon electricity generation. However, in recognition of proposed EU targets, the Government has published a consultation on a Heat and Energy Saving strategy to make the step change required to meet these targets. Ofgem has two separate roles that are relevant to responding to this consultation. Firstly, we are the regulator of the gas and electricity sectors, with a principal objective to protect the interests of existing and future consumers. We are also responsible for administration of a number of support schemes, including the Carbon Emissions Reduction Target.

Associated Documents

- DECC's Heat and Energy Saving Strategy consultation, and supporting documents http://hes.decc.gov.uk

- Ofgem's response to the Government's 2006 Energy Review (ref 82/06) http://www.ofgem.gov.uk/About%20us/CorpPlan/Documents1/13924-8206.pdf

- Ofgem's response to the Government's 2007 Renewable Energy Strategy (ref 139/08) http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=320&refer=Sustainability/Environment/Policy

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Introduction

Ofgem welcomes the opportunity to respond to the Government's consultation on the Heat and Energy Saving Strategy consultation (HES). Household energy efficiency is a very cost-effective way of delivering carbon savings, as well as reducing the cost and effort required to meet the renewables target.

Ofgem is the executive body of the Gas and Electricity Markets Authority. In addition to our Statutory Duties (set out in Appendix 1) we carry out an administrative function for a number of energy-related Government environmental support schemes.

Government's ambitions for energy saving

The HES consultation addresses a number of the Government's energy-related commitments: to reduce carbon emissions by 34 percent, meet 15 percent of energy consumption from renewables, and eliminate fuel poverty across the UK by 2018. The headline ambitions outlined in the HES consultation aim to reduce household carbon dioxide emissions by a third and to offer seven million homes a 'whole house' energy saving refurbishment.

Our response

The Government's ambitions have the potential to make significant, permanent and cost-effective contributions to the UK's emissions and renewables commitments. However, the cost of recovering levies to pay for environmental programmes needs to be recognised and addressed.

Our response is divided into two sections:

Section one develops Ofgem's thinking on four key issues relating to the consultation:

- Fairness
- Finance and delivery options
- Role of DNOs
- Heat markets framework

Section two provides Ofgem's response to the questions outlined in the consultation.

1. Ofgem's key issues in response to the HES consultation

Key issue 1: fairness

1.1. One of the important principles that the Government identifies in its consultation is that of "fairness" in the way that measures are introduced. In particular it makes clear that in developing its policy in this area it will be looking both at how to ensure that those on low incomes who cannot afford the measures are able to benefit and at how to ensure that the costs of the scheme are recovered fairly across consumers.

1.2. While there are no specific questions asked about this aspect in the consultation it is one that we see as critical to the design of any future scheme. At a time when over five million households are in fuel poverty and the Government's fuel poverty targets are in jeopardy it is essential that thought is given as to how to ensure that this programme plays its part in tackling the problem and that the costs of the programme do not exacerbate the problem further.

1.3. Most energy saving measures are cost-effective over their lifetimes. A key challenge is therefore to enable/persuade consumers to make rational long-term decisions rather than heavily subsidising all consumers. To avoid putting an excessive burden on energy consumers, particularly those in or on the edge of fuel poverty, we urge Government to further explore the barriers to the uptake of measures and self-financing by those that can pay. Areas for focus could include availability of information and long term loans, effect of energy efficiency investments on house resale values and identification of appropriate trigger points to encourage consumers to undertake work (e.g. at point of purchase) rather than offering substantial support to all households.

1.4. As is implicit throughout the consultation it is inevitable that there will be significant numbers of consumers who cannot afford to pay for the measures and these will be the ones who stand to gain most in terms of reduced energy bills. It is right that support is provided to this group. However it is also essential – if the costs are to be kept to anything like a reasonable level – that such support is carefully targeted. As well as looking at income and other measures of deprivation any strategy needs to differentiate clearly between different types of tenure. For owner occupiers installation of these measures could be expected to add to the value of the property and even if the consumer is on a low income it may be appropriate to look to them to fund part of the costs through a charge on their property. For private rented property thought needs to be given to how to achieve benefits for low income tenants without providing a windfall gain for landlords. The social rented sector is an obvious easy target where change could be effected (through the planning regulations and an extension of the decent homes standard) without individual tenants having to bear the upfront costs.

1.5. The most equitable way to recover the costs of the programme is through taxation rather than energy bills. While those on low incomes use less energy on average, raising money through energy bills remains highly regressive. The tax and benefits system is inevitably more flexible and able to accommodate tapering (to avoid the poverty trap problem) and rapid changes in a household's circumstances from week to week. The Warm Front scheme is already funded through taxation and in merging schemes together it is essential that Government's contribution is maintained, if not extended.

1.6. If some element of the costs of energy saving programmes are to be funded through energy bills then careful thought will be needed as to how to mitigate the impacts for those on low incomes by considering who pays for the schemes. Government is already thinking about these issues, including the role of social tariffs, as part of its fuel poverty review and it is important that this thinking is joined up. Given that low income households tend, on average, to consume less energy, future government obligations on suppliers could be based on their consumers' consumption, rather than the number of customers they have. However, further options are available, including exempting certain consumers from paying the levy, releasing suppliers from their obligation to recover levies in respect of vulnerable customers or changing the 'tax base' to be more progressive with the consumption profile. Ofgem is contributing to thinking in this area in its current work on domestic energy consumption and tariffs; a discussion paper is due for publication in June 2009.

1.7. The Renewable Heat Incentive needs particular consideration in this context given the risk that it could prove to be a financial transfer from all consumers to homeowners who part-finance installations. The equity issue would be reduced if the RHI drove a large increase measures that primarily benefit vulnerable and low income households.

1.8. However across all the areas considered in this consultation the issues of "fairness" need much greater consideration. Previous schemes have grappled with the challenge of how to achieve effective targeting (as highlighted for example in the recent National Audit Office report on Warm Front[1]). Given the scale of the programme envisaged here – both in terms of the level of support available to those who benefit and the costs to be born by consumers at large – this aspect is more critical than ever. As Government develops its thinking and the costs of delivering this programme become clearer it is essential that there is transparency about the costs that might be born by energy consumers to allow a proper debate on this issue.

[1] See the NAO's report on the Warm Front Scheme, published February 2009. http://www.nao.org.uk//idoc.ashx?docId=b2e3d3ee-90f4-4500-ab45-7966aae983e8&version=-1

Key issue 2: finance and delivery options post-2012

1.9. The HES strategy will require a substantial expansion of household installation work to deliver the required reduction of energy use. Now is the time for the Government to think strategically about how these measures could best be financed and delivered. The scale of the ambition demands a delivery approach that can rise to the challenge, and the step change in delivery costs, in a way that delivers fairness in terms of who pays and who benefits from measures.

1.10. There are potential state aid issues with many of the options set out in the consultation, such as fiscal incentives, state subsidies and support schemes. Government would need to consider state aid implications with any of the models put forward.

Financing energy saving measures

1.11. The consultation outlines a number of options for financing energy saving measures, including

- Standard finance (i.e. commercial loans from banks, suppliers or others);
- Service charging for energy efficiency and low carbon energy equipment: an ESCo model; and
- ESCo model using DNOs.

1.12. Both standard finance and an ESCo model may become more attractive with the help of good quality advice, information campaigns, fiscal incentives and joined-up access to Government environmental programmes. However, we are of the view that DNOs are not the most appropriate vehicle for financing energy efficiency loans, as we set out in our Role of DNOs key issue. Finance options are explored further in our response to Q9.

Delivery model options

1.13. In the HES consultation Government sets out its two preferred options:

- A continuation of the supplier-led model; or
- Delivery through a central co-ordinating body.

1.14. Though the supplier-led model has been effective at delivering low cost measures efficiently, we agree that it may not deliver on the Government's longer term ambitions because

- it may be impeding the development of a competitive energy services market;
- it is unlikely to be the most effective model for encouraging the whole house, community approach that the Government seeks; and
- it may be less effective than a single body at working in partnership with local authorities and community groups.

1.15. A central co-ordinating body could be designed in a way that allows all potential market participants, including suppliers, installers and energy service companies (ESCos) to access support as required, and delivers a co-ordinated approach in partnership with the appropriate stakeholders. It could either be a customer-facing organisation, or an intermediary passing funding from sources such as suppliers to installers and households. Customer advice should be delivered in a holistic way that offers whole-house solutions, including advice on all available support schemes, perhaps utilising existing resources such as the Energy Saving Trust and Domestic Energy Assessors. Delivery will also work best when tailored to the differing needs of the spectrum of customers and housing tenures. In our response to Q17 we expand our thinking on delivery model options, and our suggested criteria.

Key issue 3: role of DNOs

1.16. The role of DNOs is a significant topic for Ofgem for two reasons: firstly, the consultation suggests a potential role for DNOs as finance vehicles for energy efficiency measures; secondly, there is a wider issue about the role of DNOs in the transition to a low carbon economy. We have been discussing the role of DNOs with DECC, and intend to continue our engagement on this issue.

DNOs as providers of energy saving loans

1.17. The consultation proposes that DNOs could become large-scale providers of finance for energy saving schemes. We understand that DECC has been considering the role of electricity distribution network operators (DNOs) rather than gas distribution networks (GDNs). Most of the energy saving measures are likely to reduce gas consumption rather than electricity consumption (where heat pumps replace gas central heating electricity consumption will actually increase) so it is not clear why the DNOs have been chosen. DNOs are seen as viable candidates for the following reasons:

- DNOs have a 'permanent association with the house';
- Network charges already vary by property; and
- DNOs can potentially access capital at lower interest rates than others.

1.18. We have significant concerns with the DNO finance model. Not only would it represent a significant departure from existing business models, it is also not building on any existing platform; others in the marketplace are better positioned to offer loans to households. In particular, we note that:

- DNOs have a physical link to households, but not a direct commercial or customer-facing relationship;
- DECC claims that adding a network charge to a consumer's bill would be simply another variable, as DNOs vary charges by property already. This is not the case; DNOs charge suppliers on the basis of generic customer profiles for domestic and small/medium size businesses. Developing a house-specific charging system would involve developing billing systems, which are likely to be costly and may have to be replicated for each of the seven DNO ownership groups; these are competencies which others (e.g. suppliers, local councils) already have;
- While it is true that DNOs are seen as relatively low-risk investments with a fairly low cost of capital, this would not necessarily apply to energy saving measures outside its core regulated business. In fact, forcing DNOs to offer loans that could be passed to future homeowners could make these investments more risky because the loan could not be risk-rated against unknown future homeowners;
- DNOs would also have to comply with financial services regulation, an area they are unlikely to have expertise in;
- We are concerned that this type of model may lead to increased customer confusion and issues around ascertaining total costs when switching suppliers leading to opportunities for mis-selling, as well as an increase in customer queries about payment levels; and
- If households are responsible for loan repayments as part of their energy bill, the ultimate sanction is disconnection. Bad debt issues could lead to an increase in disconnection rates.

1.19. We explore the options for a variety of finance models in our response to question nine.

DNOs' role in moving to a low carbon economy

1.20. Generally DNOs are seen as passive actors in the energy sector at present, primarily concerned with delivering economically efficient networks at the lowest cost to consumers; their primary incentive is to outperform the allowed revenue. However, we believe that DNOs can in the future make an important contribution to a low carbon energy system.

1.21. The DPCR5 policy paper[2] expressed Ofgem's desire for DNOs to consider their strategic role in delivering a low carbon economy, and avoid being perceived as a

[2] See Ofgem's DPCR5 Policy Paper, published December 2008. http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=132&refer=Networks/ElecDist/

barrier to change. However, there is considerable uncertainty as to the shape of the low carbon economy, how quickly it will materialise and what this will mean for distribution networks. The challenge is to balance the risk involved in predicting the future with the risk of continuing business as usual, both of which could result in stranded assets. Given the uncertainty, flexibility is important. DNOs should be able to respond to a changing policy climate. To this end we are encouraging DNOs to make a step change in operating and managing their networks: equalising incentives for capital and operating expenditure to reduce current bias for network solutions (thereby encouraging more active network management and demand side management) and creating a flexible incentive to encourage DNOs to explore innovative options in the development of their networks to facilitate the low carbon economy. Ofgem's RPI-X@20 regulatory review is also looking at longer term issues relating to network companies' role in delivering a low carbon energy system[3].

1.22. We also think there are opportunities for DNOs become more active in facilitating:

- connection of low carbon technologies and integration of low-carbon heat schemes: reducing complexity and assisting DE developers; identifying opportunities for DE schemes; advising local authorities and developers; and
- end-use energy efficiency: encouraging end-use efficiency or load-shifting to defer reinforcement (we are removing the DPCR4 volume-based revenue driver to help); DNOs should not be excluded from competing in energy services if this is outside of their price-controlled business and to the extend permitted under their licences.

Key issue 4: heat markets framework

1.23. The market for heat is not regulated like electricity or gas. This means that domestic community heating consumers are not subject to sector-specific regulatory protection. This can give rise to issues, not least because installed community heating systems have monopoly characteristics. Charges, quality of service, metering, billing and dispute resolution are dealt with through contractual terms.

1.24. Ofgem has received enquiries from dissatisfied heat consumers in the past few years attempting to seek redress for charging arrangements that are not transparent, and can become a significant issue without explanation. A potential issue here is that while Consumer Direct is able to deal with heat supply issues they have no specific expertise and there is not a recognised body to deal specifically with such complaints.

PriceCntrls/DPCR5

[3] See the RPI-X@20 page on the Ofgem website: http://www.ofgem.gov.uk/Networks/rpix20/Pages/RPIX20.aspx

1.25. In the consultation, DECC outlines its intention not to establish a new heat licensing framework, a position in accordance with our response to the January 2008 Heat Call for Evidence (CfE) and June 2008 Renewable Energy Strategy (RES) consultations. For now, a heat markets forum will convene industry, Government, consumer groups and Ofgem to assess various types of arrangements for areas where more might be needed to protect customers or build confidence.

1.26. Ofgem's general duty to keep activities connected with the supply of heat from CHP under review, our administration of Government environmental programmes and our revised SD duty give us a mandate to play a part in developing a renewable/low carbon heat markets framework. We look forward to playing an active role in the forum, in line with our principal objective and statutory duties.

1.27. We welcome the suggested mix of Government, industry, consumer groups and Ofgem, and suggest that local authorities and developers should also be included due to their central role in delivering district heating schemes. The forum represents an opportunity for the various stakeholders to work together to reach practical solutions that benefit both consumers and industry.

1.28. The forum's task will be to provide advice on a number of heat-related issues. It will require a defined agenda and timeframe to be effective and focused. The group's role could tend toward being either proactive or advisory; before deciding whether to establish a heat licensing framework we think it is appropriate to trial codes of practice. This will help to reduce the regulatory and cost burden on the emerging industry. Our suggestions for the role of the heat forum are noted in response to questions 22-24 of this response.

2. Response to consultation questions

Chapter Summary

In this section we respond to the questions raised by DECC within the HES strategy consultation. We have responded to those questions that we consider relevant to our remit as well as in relation to our role as administrator of various Government environmental programmes. Where we have not incorporated a response to a question, it can be assumed that either we do not consider that the area falls within our remit or that we have no relevant information to provide.

Chapter 1 - Introduction

Q1: Do you agree with the level of ambition and the indicative pathway set out in this chapter? If not, why, and what alternative would you suggest?

Q2: Do you agree with the Government's policy approach set out in paragraphs 1.31 onwards to achieving our ambitions on heat and energy saving?

1.29. See the key themes summary for our views on this.

Chapter 2 - Changing behaviour

Q3: How can the Government encourage people and communities to change behaviour to save energy? What is the appropriate balance between changing attitudes, and providing advice and information?

A significant component to energy use is habitual behaviour. Government will need to be alive to this, and work to bring about a culture change in energy use. This could be achieved in part through expanding the role of EST, DEAs and the roll-out of street-by-street home visits. To reach a critical mass of households the Government may need a more creative approach, perhaps through partnerships with various media sources.

Q4: How can home energy audits be made most useful, and do you agree that the Government should use Domestic Energy Assessors, who have been suitably trained, to deliver them as widely as possible?

1.30. Domestic energy assessors are a valuable existing resource that could be expanded. Because their work takes place at key trigger points such as when a home goes on the market, their information can be used by the incoming household to plan energy saving investment. They could work best by providing trusted, impartial advice on all aspects of energy saving, together with (means-tested?) advice on accessing support schemes.

Q5: Should the Government work with industry to develop accreditation standards for advice about, and installation of, energy efficiency technologies? What would be the best model for such a scheme, and why?

1.31. Accreditation of energy saving advice and installers will be very important for building the trust and credibility required to persuade large numbers of households to choose to install energy saving measures.

Q6: Are the information, advice and support services provided by the Government to businesses effective in encouraging them to reduce their energy use and their CO2 emissions?

1.32. Schemes such as the Carbon Reduction Commitment (CRC) will help engage businesses in reducing their energy use. We would support clear guidance and information provision to scheme participants to ensure they are aware of their role and opportunities and benefits associated with active participation.

Q7: Are the existing commitments for public sector buildings sufficient for the public sector to fulfil its role in driving improvements and leading by example?

1.33. Public sector buildings (local and central government, schools, hospitals etc) should lead by example. This can take a number of forms, from reducing the energy use by turning off lights to using public sector buildings as anchor loads for district heat networks.

Chapter 3 - Financing options

Q8: What will be the most effective way for Government to develop RHI and FIT policy so that combined financing packages of insulation, renewable heat and small-scale low carbon electricity technologies might be offered?

1.34. For customers to determine the appropriate package of measures they will require access to joined-up, holistic advice. A whole house package of measures is likely to require support from multiple environmental programmes, as well as finance arrangements, and the success of any scheme is likely to be greater if assistance in ascertaining and understanding overall costs is provided. A single cost for the whole house refurbishment can then be calculated.

Q9: What action, if any, should the Government take to enable finance to be arranged for the higher cost energy efficiency and low carbon measures? Are there other options the Government should consider? Please provide evidence to support your response.

1.35. We agree it is necessary for Government to take action to deliver on its ambitions; indications are that households will not undertake this work without

support. Standard finance, such as commercial loans from banks, suppliers, or remortgages, could become more attractive with the help of fiscal incentives, for example tax breaks on green/energy efficiency investment funds to attract investment provide energy saving loans on favourable terms to borrowers. This, as well as grants mentioned in the consultation, may be necessary to address any potential hangovers from current economic issues such as credit constraints and falling house prices that may make it more difficult for households to access commercial loans or extend mortgages to pay for energy saving measures.

1.36. The Government may wish to give further consideration to successful financing schemes abroad, such as ecoENERGY Refit in Canada and Germany's national development bank (KfW), mentioned in the consultation. Government-backed schemes can offer favourable rates - Germany's KfW is triple-A rated - which may increase the potential viability of whole house packages for households. This scheme facilitates long term viability of funding, reduced risk for commercial providers and households, and a competitive framework for consumers to choose a finance provider (high street banks) and installer/ESCo. This scheme has been central to enabling those who are in a position to do so to self-finance, as well as reducing Germany's reliance on regressive energy levies that increase the cost of energy, disproportionately affecting low income households.

1.37. Energy service company (ESCo) contracts could become increasingly attractive to households and multiple occupancy private and social housing sites by providing a service level agreement for a guaranteed price – thus reducing the hassle factor. The Government could encourage the development of ESCos by introducing a competitive framework for accessing consumer funding from all Government programmes; the supplier-led focus of the CERT may be a barrier as ESCos cannot profitably compete with suppliers' provision of energy efficiency measures that are currently subsidised by all consumers.

1.38. The DNO finance model appears prominently in Government's thinking as a way to offer long term, low interest loans linked to households. We believe that synergies with DNOs' existing competencies are overstated. For example, the consultation states that 'network charges already vary by property', which is not the case: DNOs set generic charges for households and SMEs according to the behaviour of different consumer types. We encourage the Government to further consider actors such as councils, banks and other commercial finance providers, existing customer-facing actors that are already offering loans to households and could develop loans that are portable to point of house sale if the Government wishes to go down this route. We understand that some local councils are working with DECC to offer loans to households that are repaid via council tax, which sounds promising.

Q10: What should the Government do beyond these initiatives to promote investment in energy saving and low carbon energy technologies in business and the public sectors?

1.39. Appropriate cost signals are required to encourage business and public sector organisations to make low carbon investments. In particular, it is important to get carbon pricing right. The EU ETS may not be providing an adequate signal to

investors at its current level. The Budget 2009 announcement to extend the eligibility of low carbon CHP for exemption from the Climate Change Levy (CCL) will help to provide some medium term certainty for investors.

Q11: Should levels of support through the Renewable Heat Incentive vary by technology and/or customer group? Are there any other ways of differentiating levels of support under the RHI?

1.40. The RHI will cover a range of technologies and customer groups, so it may be appropriate to differentiate levels and types of support to target support effectively and make it user-friendly. We have previously said that households are likely to require help with upfront costs for renewable heat installations, which could be based on a predetermined heat output for pragmatic reasons4. Notwithstanding current issues with securing finance, larger generators are less likely to see upfront costs as a barrier, so upfront payments based on deemed output could be restricted to household-scale installations that are impractical to meter. Larger installations could receive regular payments based on metered output.

1.41. Differentiated support via technology banding may be appropriate given that the Renewables Obligation (RO) now offers different support levels. This could help to equalise incentives between renewable heat and electricity, and target support to where it is needed most (lower levels of support for lower cost, mature technologies, more for higher cost, emerging technologies). However, we recommend that the Government simplifies the support scheme arrangements available to renewable generators. For example, renewable CHP generators could in future access support under the RO, Climate Change Levy (CCL) exemption and the RHI, which could lead to undue complexity for generators and administrator, especially if differentiated support is offered. This complexity could increase the likelihood of giving the wrong support levels to renewable generators. One option to reduce complexity would be to use RO or RHI certificates to denote eligibility for CCL exemption, rather than Levy Exemption Certificates (LECs).

Q12: How can we introduce the levy to fund the Renewable Heat Incentive so as to minimise suppliers' administrative costs and reduce uncertainty among suppliers of fossil fuels for heat?

1.42. A significant question for Government is whether suppliers or the scheme administrator will be required to carry working capital to make payments to renewable heat producers. There is likely to be a lag between making the first payments and recovering the first levy payments, and the size of working capital required could be significant. One option would be to initially set the levy based on

4 See Ofgem's response to the Renewable Energy Strategy consultation, October 2008: http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=320&refer=Sustainability/Environment/Policy

upfront estimates, perhaps through four quarterly payments, and then conduct an end of year reconciliation. To reduce uncertainty the levy could be set at a fixed level for a few years as it was for the RO.

1.43. The RHI powers in the Energy Act 2008 allow for a levy on suppliers of fossil fuels for heat, including but not limited to gas. If Ofgem is to administer the scheme, and the scheme applies to all fossil fuel heating sources (e.g. coal, oil, LPG), this raises issues about our enforcement powers - only gas supply is currently a licensable activity - and practical issues in what is a fragmented market. Whilst we agree that all fossil fuels for heat should be included to provide the right incentives, these issues will need to be bottomed out for the administration to work.

Q13: Do you think that financial institutions, such as banks or other loan companies, would be an effective way of assisting potential small-scale heat generators (such as householders) with financing of the initial capital cost of renewable installations? What other considerations, if any, should be taken into account when determining eligibility for an up-front payment (for example, only generators with equipment below a certain size can apply, such as domestic customers)?

1.44. Please see Q9 for views on finance arrangements.

1.45. As with other energy saving incentives, the Government will need to think about the impacts on different customer groups. Firstly, the needs of households will be different to industrial-scale CHP ventures; this is covered in more detail below. There is also the question, particularly at domestic level, of who benefits from renewable heat measures, which we covered previously in our 'fairness' key issue. To avoid the scenario where the RHI is seen as a transfer from all consumers to those able to part-finance installations it will be important for RHI benefits to be accessed by households in a variety of financial predicaments. If providers of whole-house installations are able to access multiple sources of funding (e.g. RHI, CERT and FIT) to offer a package that met upfront costs and reduced the net cost of energy including loan repayments, this would potentially be attractive to the majority of households. However, the RHI is less likely to be appropriate for low income households as a stand-alone measure, even if it offers an upfront payment to partially offset the capital cost of the equipment (unless the upfront payment covered the whole capital cost).

1.46. The RHI will cover a range of heat producers with differing levels of expertise and financial means. Small-scale heat producers will be predominantly domestic, and the size of the equipment will tend to mean that it is impractical to meter the heat output. Households may also see the upfront cost of a renewable heat generator as a significant barrier. Therefore it may be effective and pragmatic to provide small-scale heat producers with an up-front payment to offset the initial capital cost, which could be calculated according to a deemed heat output over a set number of years. The Government could apply up-front payments to renewable heat producers below 50kWth capacity to match the scale of the equipment covered under the low carbon heat incentive for the proposed domestic Micro-CHP.

1.47. Larger heat producers are more likely to be able to make finance arrangements using a longer term investment horizon, and value the certainty of volume-related payments over the long term. They are also more practical to meter. To offer up-front incentive payments for large-scale heat plants would significantly increase the working capital required to administer the RHI, and would fail to recognise the potential for accurate, meter-based payments at this scale, which would more accurately reflect the output of the installation. Therefore we think that the RHI should offer regular payments for larger renewable heat installations instead of up-front payments.

Q14: How can we maintain demand for renewable heat technologies before we introduce the Renewable Heat Incentive?

1.48. To maintain demand prior to the introduction of the RHI, the Government could consider whether it could backdate eligibility for payments to a set date. It would need to ensure that producers have a valid way of proving the date of installation, as well as confirming eligibility of installations, for example through the microgeneration certification scheme or some other accreditation method. Issues surrounding legal certainty/non-retroactivity would also need to be considered.

Chapter 4 - Delivery

Q15: Do you agree with the proposal to continue with a CERT-type obligation until December 2012? Do you also agree that the proposed CESP framework should run concurrently to the same end date?

1.49. See CERT and CESP responses[5].

Q16: Do you agree with our analysis of the potential impacts of a cap-and-trade approach to delivering energy efficiency in homes? Please support your answer with evidence.

1.50. On the basis of the Government's analysis we agree that a measures-based approach would be more effective than a cap and trade approach. If a cap and trade approach were to encourage demand rationing we would have significant concerns with the impact on vulnerable consumers.

Q17: Do you have views on the merits of moving to a different approach for delivering energy efficiency to households? Do you have other suggestions of alternative delivery models which might be effective in achieving our objective?

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1.51. The HES consultation states that a post-2012 delivery model will need to enable multiple measures to be delivered effectively to millions of households. This approach may deliver greater savings in energy and bills for households which could encourage greater uptake from consumers, though thought should be given to how to bring the various players to market – through incentives, obligations or fiscal stimuli. We reiterate our support for a holistic, community approach as expressed in our response to the Energy Review 2006. We recognise that a significant characteristic of energy use is habitual behaviour, and will suggest that support and advice should be given in parallel to physical measures to achieve the greatest effect.

1.52. Good advice to consumers is essential for delivering whole house energy saving measures, potentially using the EST and domestic energy assessors or relying more on commercial providers such as suppliers, ESCos and installers. Advice should cover the spectrum of heat and energy efficiency installations, an assessment of packages against Energy Performance Certificates/SAP benchmarks together with opportunities for accessing commercial loans and incentives such as RHI, FIT and the post-CERT scheme. A definition of 'whole house' would be useful, and setting a benchmark, for example a thermal efficiency rating for a whole house energy saving project would give developers and households the freedom to choose the measures appropriate for their circumstances. The achievable thermal efficiency rating may vary by property, so again a segmented strategy would be required.

1.53. Ideally we think that the future delivery model should:

- Cater for different types of customer and ability to pay (support targeted at vulnerable customers, encouragement and soft green loans for others);

- Facilitate a joined-up, multiple measures approach to enable large, measurable energy savings for each household (and quantifiable CO2 reductions);

- Respond to consumer behaviour, for example by being activated at particular trigger points to encourage households to undertake work, such as when buying a house (possibly to include a stamp duty rebate);

- Strive for value for money and efficiency; and

- Enable as many delivery agents as possible to access funding in order to compete to install energy saving measures.

1.54. Despite the previous success of supplier-led programmes such as EEC1 and EEC2 we recognise the Government's concerns that the supplier-led delivery model may not be effective for achieving the scale of ambition envisaged in the HES post-2012. We are concerned that the supplier-led model may be impeding development of a market for competitive energy services. The contracts developed under CERT favoured a small number of providers, making it difficult for ESCos, merchants and installers from participating in the energy efficiency market. A level playing field would give consumers more choice and increase contestability, and help to counteract the low levels of trust that consumers currently have for suppliers.

1.55. We are also of the view that in its current format at least the supplier model may not be the best vehicle for a whole house, community approach that the Government seeks. The trial of a community-based approach in the forthcoming CESP is a welcome development that can inform the design of the post-2012 delivery model. However, it is still an imperfect targeting measure. Even within the most deprived areas there will be a mix of households and the Government will need to look carefully at the results of CESP to ensure that there are not incentives for suppliers to simply focus on the better off in these communities and that certain communities, for example in rural areas, are not excluded. Nonetheless it is a valuable pilot from which lessons can be learnt.

1.56. Replacing the supplier-led model would be a significant change. However, in the context of the 2020 goals, early and effective action to secure large, permanent energy savings would reduce the costs to existing and future consumers of reducing carbon emissions and increasing the proportion of renewable energy.

A more innovative, co-ordinated approach is needed

1.57. A central co-ordinating body could target better in partnership with local authorities and community groups, and deliver better against most of our criteria, though careful attention to detail would be important. Careful design could ensure a contestable market for all would-be providers whilst ensuring the big players can deliver at scale. We would not want to see a beauty-parade type model where providers would be chosen which could limit the ability for all would-be providers to compete. We would also caution against introducing infrequent (annually or less frequent) opportunities for providers to bid to offer services as this prevents providers from accessing funding in the interim. We recommend that the Government develops a competitive framework so that providers can access funding from energy efficiency programmes on the basis of being paid for success. For any post-2012 scheme, careful consideration should be given to the transition arrangements from CERT; in the transition from EEC to CERT suppliers exceeded their targets on the basis that extra measures installed could count towards the CERT.

1.58. Different approaches will be required for different housing tenures. As previously stated, social and council housing can be seen as low hanging fruit for a number of reasons. These housing types already undergo planned refurbishment and could be targeted much easier than individual housing where homeowners or private landlords can be very resistant due to hassle factors and concerns about payback. A central co-ordinating body could work with local authorities, social landlords and community groups to target measures effectively and agree finance arrangements. However given that the existing schemes have already focussed heavily on this sector the level of need in this sector is arguably lower and it is important that careful thought is given to how the traditionally more difficult areas – and in particular the private rented sector – might best be addressed. For privately owned homes, an approach may need to consider push and pull factors; the CERT scheme 'pushes' subsidised measures onto customers, whereas a soft loans approach would require customer 'pull'. Appetite for the latter is uncertain, though it has enjoyed some success under the German KfW scheme, mentioned earlier.

Chapter 5 - Stronger incentives to move to a low carbon future

Q19: Should we require marketing material for property sales and rental to feature the EPC rating more prominently? If so how? What delivery bodies or industry groups could be given access to the EPC database, and how could they make best use of it whilst ensuring it is not misused? Please support your answers with evidence.

1.59. Ofgem is supportive of efforts to have information on house condition available to help in targeting assistance. This is an invaluable source of information and Government should be looking hard at how to make it more widely available. Given it concerns houses rather than individuals it is not clear that data protection should be an issue. Even if it is an issue then there can be ways through, as shown with data sharing on pensions data which Ofgem championed and has now been facilitated through primary legislation. Clear guidance from the Information Commissioner would be helpful and as a minimum it would seem that this information should be available to local authorities who could then help in targeting.

Q20: Besides removing the threshold for consequential improvements, which will be considered in the consultation on changes to the Buildings Regulation in 2009, are there any other options for wider building regulation that you would like to see considered in the longer term? Please support your answer with evidence for the effectiveness of your suggestions.

1.60. We are generally supportive of the role that regulation can play in delivering energy demand reduction. These opportunities may be particularly relevant to the social housing sector, and possibly private rented sector. Enforceable building regulations can reduce the cost to energy consumers, and could be enforced at trigger points, such as the existing requirement for energy performance assessments when a house is sold or rented out. The Government should consider what the appropriate balance is between obligations and incentives.

Chapter 6 - District heating

Q22: Do you agree that the Heat Markets Forum should consider regulatory arrangements for district heating to ensure consumer protection? Are there specific issues you think it should cover?

1.61. Consumer protection must be a central feature of the policy framework for encouraging low and zero carbon heating technologies. Consumer confidence is vital to developing this market and overcoming scepticism. Clearly, when undertaking expensive investments consumers need to have confidence that the technology is reliable and that arrangements are in place should that technology fail. These issues may be magnified if district heating is most viable in areas of social/council housing if vulnerable customers reside in these areas.

1.62. The necessary steps for protecting consumers depend on the type of contract model used. If a two contract model were used – one between the tenant and the landlord (with heat included as part of the rent or service charge), and the other between the landlord and the heating company – then it is reasonable for the consumer protection arrangements to focus on what exist currently for protecting tenants (i.e. the Ombudsman) and indeed they may already cover it. However, if the contract is directly between the tenant and the heating provider the protections are more likely to be within the framework of general consumer protection legislation and/or encouraging the heating providers to set up a code of practice including redress. In this case the existing Ombudsman would not be able to help, but there are other general arbitration services such as CISAS which could[6].

1.63. A code of practice and accreditation scheme for district heating could help to protect existing and future consumers and boost public and investor confidence in heat schemes and the industry. At present this would be voluntary but accreditation could be a strong component in qualifying for partnership projects with local government and social housing so this may not be an impotent measure.

1.64. The district heating code of practice could cover:

- Minimum temperatures
- Priority services register for vulnerable customers
- Regular billing to help consumers to manage payments
- Procedures for dealing with consumers struggling to pay bills

1.65. A body assigned with responsibility for dispute resolution will be required. General housing ombudsman services currently exist for social tenants (Housing Ombudsman Service[7] – non-social landlords can voluntarily join too) and council tenants (Local Government Ombudsman[8]). These could provide customer-facing services for heat-related complaints, or a new body could be set up. A code of practice with basic protections common to all accredited providers would be a good starting point for consumers, and provide a frame of reference for the aforementioned ombudsman services, or a new one. We note that non-social landlords can sign up to the social housing ombudsman, which could prevent the need for setting up a new one.

1.66. Heat providers could be encouraged to focus on the needs of their consumers through the development of a league table and/or some form of best practice awards scheme.

[6] See the Communications and Internet Adjudication Services website: http://www.cisas.org.uk/
[7] See www.ihos.org.uk for further details.
[8] See www.lgo.org.uk.

Q23: There are a number of ways to tackle commercial barriers to district heating. These include using the planning system and heat mapping, encouraging or requiring certain buildings to connect to networks and engaging property developers. Which of these options should be taken forward and why?

1.67. District heating networks are large, long term sunk cost investments, and it is unclear from the HES consultation that private investment will be attracted to these opportunities. Concerns about the risk of returns and certainty of demand have meant that the public sector has historically played a central role in developing schemes, and is likely to continue to do so. The forum could be an important place to identify solutions to this, which could include involvement of local/central government anchor loads (hospitals, social housing, public offices, swimming pools etc), local authority waste management policies and sharing best practice with operational schemes. Public sector anchor loads can help to make schemes viable and represent opportunities to lead by example.

Q24: What are your views on the options for reducing the risks of poor returns on investment in district heating networks? Which do you think would be most effective and are there other more appropriate solutions?

1.68. There are a number of commercial considerations for district heat projects to make in terms of reducing the risks of poor returns, not least ensuring that they are sited appropriately in areas with an appropriate heat density and steady heat demand from anchor loads. Poor returns may be a sign that investment in an area is uneconomical. However, planning regulations requiring new and/or refurbished buildings, particularly in the public sector, to connect to heat networks, have the potential to make such schemes viable. Investors need to have confidence in the development of long-term demand, and certainty of recovery to avoid stranded assets. Good planning can help here, and local Government is a vital partner in identifying potential opportunities. Because heat networks have high sunk costs, it is important for the planning process to think strategically and incorporate all potential heat consumers in the area to ensure the pipes are sized correctly; it may not be possible to provide economical connections for latecomers. To reduce the risk of poor returns it would also be important to provide a high level of customer service and satisfaction, which will help to maintain demand for the service and serve as a promotion tool for growing the business.

Chapter 7 - CHP and surplus heat

Q25: Will the ETS and other policies, such as the Carbon Reduction Commitment and support for renewable combined heat and power, send a strong enough signal to encourage the development of CHP schemes and more efficient use of surplus heat? If not what measures do you believe would provide sufficient stimulus to accelerate new CHP capacity build? Can you provide evidence to support your view?

1.69. The ETS may be causing difficulties for potential investors in CHP and surplus heat due to the price of EU allowances. The CRC, the RHI and the CCL exemption can all play a role in encouraging this investment, but their future impact is unclear at present.

Q28: Do you consider such cooling technologies can play a role in delivering a renewable and low carbon energy mix? What opportunities exist for their exploitation in the UK? What further factors do we need to consider?

1.70. At a large scale, many commercial buildings use electric cooling systems which are inefficient. Replacing inefficient electric air conditioning systems with renewable or low carbon alternatives can play a part in decarbonising the UK's energy mix and boosting renewables. However, the Government should be mindful of encouraging new demand for cooling technologies through support schemes, which could increase overall energy demand and add to the pressure (and cost) of meeting the renewables target.

Chapter 8 - Wider impacts

Q29: Do you agree with our analysis of the likely impacts of the proposals in this document and in the associated impact assessments on carbon dioxide emissions, energy prices, fuel poverty, security of supply sustainable development or the economy?

1.71. Given the very significant costs involved with the policies outlined in this consultation, it is essential that Government does a full impact assessment.

Appendix 1 – The Authority's Powers and Duties

1.1. Ofgem is the Office of Gas and Electricity Markets which supports the Gas and Electricity Markets Authority ("the Authority"), the regulator of the gas and electricity industries in Great Britain. This Appendix summarises the primary powers and duties of the Authority. It is not comprehensive and is not a substitute to reference to the relevant legal instruments (including, but not limited to, those referred to below).

1.2. The Authority's powers and duties are largely provided for in statute, principally the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998, the Enterprise Act 2002 and the Energy Act 2004, as well as arising from directly effective European Community legislation. References to the Gas Act and the Electricity Act in this Appendix are to Part 1 of each of those Acts.[9]

1.3. Duties and functions relating to gas are set out in the Gas Act and those relating to electricity are set out in the Electricity Act. This Appendix must be read accordingly[10].

1.4. The Authority's principal objective when carrying out certain of its functions under each of the Gas Act and the Electricity Act is to protect the interests of existing and future consumers, wherever appropriate by promoting effective competition between persons engaged in, or in commercial activities connected with, the shipping, transportation or supply of gas conveyed through pipes, and the generation, transmission, distribution or supply of electricity or the provision or use of electricity interconnectors.

1.5. The Authority must when carrying out those functions have regard to:

- the need to secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met;
- the need to secure that all reasonable demands for electricity are met;
- the need to secure that licence holders are able to finance the activities which are the subject of obligations on them[11];
- the need to contribute to the achievement of sustainable development; and
- the interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.[12]

[9] entitled "Gas Supply" and "Electricity Supply" respectively.
[10] However, in exercising a function under the Electricity Act the Authority may have regard to the interests of consumers in relation to gas conveyed through pipes and vice versa in the case of it exercising a function under the Gas Act.
[11] under the Gas Act and the Utilities Act, in the case of Gas Act functions, or the Electricity Act, the Utilities Act and certain parts of the Energy Act in the case of Electricity Act functions.
[12] The Authority may have regard to other descriptions of consumers.

1.6. Subject to the above, the Authority is required to carry out the functions referred to in the manner which it considers is best calculated to:

- promote efficiency and economy on the part of those licensed[13] under the relevant Act and the efficient use of gas conveyed through pipes and electricity conveyed by distribution systems or transmission systems;
- protect the public from dangers arising from the conveyance of gas through pipes or the use of gas conveyed through pipes and from the generation, transmission, distribution or supply of electricity; and
- secure a diverse and viable long-term energy supply.

1.7. In carrying out the functions referred to, the Authority must also have regard, to:

- the effect on the environment of activities connected with the conveyance of gas through pipes or with the generation, transmission, distribution or supply of electricity;
- the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed and any other principles that appear to it to represent the best regulatory practice; and
- certain statutory guidance on social and environmental matters issued by the Secretary of State.

1.8. The Authority has powers under the Competition Act to investigate suspected anti-competitive activity and take action for breaches of the prohibitions in the legislation in respect of the gas and electricity sectors in Great Britain and is a designated National Competition Authority under the EC Modernisation Regulation[14] and therefore part of the European Competition Network. The Authority also has concurrent powers with the Office of Fair Trading in respect of market investigation references to the Competition Commission.

[13] or persons authorised by exemptions to carry on any activity.
[14] Council Regulation (EC) 1/2003

Appendix 2 - Feedback Questionnaire

1.1. Ofgem considers that consultation is at the heart of good policy development. We are keen to consider any comments or complaints about the manner in which this consultation has been conducted. In any case we would be keen to get your answers to the following questions:

1. Do you have any comments about the overall process, which was adopted for this consultation?
2. Do you have any comments about the overall tone and content of the report?
3. Was the report easy to read and understand, could it have been better written?
4. To what extent did the report's conclusions provide a balanced view?
5. To what extent did the report make reasoned recommendations for improvement?
6. Please add any further comments?

1.2. Please send your comments to:

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