The Association for Decentralised Energy



### Consultation response | Energy Company Obligation 2.2 20<sup>th</sup> of January 2015

### Introduction

The Association for Decentralised Energy welcomes the opportunity to respond to Ofgem's consultation on Energy Company Obligation 2.2. The Association for Decentralised Energy is the leading advocate of an integrated approach to delivering energy locally through combined heat and power, district heating and cooling, and demand side services.

We are responding to Questions 1, 2 and 3 of the consultation, which are related to district heating systems.

#### **Response to Consultation Questions**

## Question 1 a: Do you agree with our proposed requirements for pre-existing roof insulation for district heating systems under the CERO & CSCO elements of ECO? Please provide reasons for your answer.

Ofgem proposes that the insulation of the roof will be sufficient if the premises were built or insulation installed during or after 1983 (England and Wales) or 1984 (Scotland). For premises built before 1983, roof insulation must meet the requirements of the age band G values under RdSAP (100mm insulation depth).

We are supportive of this proposal. More than three quarter of the UK housing building stock was built before 1981, according to CLG's Housing Survey, Stock Profile 2012 (**here**, tab 2012). By bringing a number of those properties up to the insulation level for the roof set in Building regulations in 1983 (England and Wales), we believe that a significant reduction in the U-value<sup>1</sup> of the roof is to be achieved.

# Question 2 a, b & c: Do you agree with our proposal that a wall with a section of cavity narrower than 40mm cannot be insulated? Do you agree with our proposal that a wall which adjoins a wall that cannot be insulated also cannot be insulated? Are there any other scenarios where a cavity wall cannot be insulated?

We agree with the proposals. For properties with a wall with a section of cavity narrower than 40mm or a wall adjoining a wall that cannot be insulated, a whole house SWI solution is neither practical nor advisable.

<sup>&</sup>lt;sup>1</sup> A U-value is a measure of heat loss expressed in watts per square meter of material. Therefore the lower the U-value, the better the insulation.

### Question 2d: for compliance purposes, how can suppliers demonstrate that a cavity wall cannot be insulated?

We think that a Chartered Surveyor's report or a Structured Engineer's report should be used to demonstrate that a cavity wall cannot be insulated due to practical constraints. A mechanism should be set up so that Green Deal Assessors can flag up on a Chartered Surveyor that a hard to treat cavity cannot be insulated.

# Question 3: Do you agree with our preferred approach (Option 1) for calculating the lifetime of multi-fuel district heating systems upgrade? If you do not agree with Option 1, do you agree with any other proposed option for calculating the lifetime for multi fuel upgrade?

We do not agree with the consultation's proposal to implement Option 1 as the preferred approach. We recommend Option 2 is implemented, as it has a similar impact as Option 1 and will ensure a lower regulatory burden on businesses, and lower administrative costs on Government, helping to reduce the overall costs of the scheme.

Option 1 takes into account the proportion of total carbon savings achieved by two or more generators newly connected to a heat network, compared with the generator displaced. Option 2 simply takes into account the amount of heat supplied by two or more generators newly connected to a heat network.

Options 1 and 2 have essentially very similar outcomes. However, there appear to be several flaws in the calculations provided in the worked examples for Options 1 and 2 which do not allow them to be effectively compared.

- The example values used in Ofgem's calculations for Option 1 do not reflect the proportional relationship between heat supplied and  $CO_2$  savings. The emission factors would need to be adjusted to reflect real life  $CO_2$  emissions of each fuel types set under RdSAP.
- The proportion of heat supplied by each generator and the type of generators are not the same in the examples provided for Options 1 and 2, which create a bias in the results and preclude a comparison between both.
- The methodology underpinning the calculations for the example of the Option 1 is too simplified and does not reflect accurately the carbon savings achieved by each technology over their lifetime. This fact is explained further in the paragraph below (a).
- There is a numerical error in the calculation of the weighted lifetime for multi-fuel upgrade under the example for Option 1, at the bottom of page 13 of the consultation document.

Taking these errors into account would show that the results of Options 1 and 2 are very similar.

Due to these expected similar results, we therefore would recommend Option 2 is implemented because it puts a smaller regulatory burden on both Government and participant energy companies, eventually reducing the costs of the ECO scheme to UK consumers and businesses.

We do not support Ofgem's proposed options 3 and 4. Options 3 retains the shortest lifetime of all the generation technologies added to the network, which does not reward appropriately the carbon savings achieved by the generation technology with the longest lifetime.

Options 4 proposes that lifetimes for multi-fuel upgrades are calculated and awarded on a caseby-case basis, which would lead to high administrative costs and would not be cost effective.

(a) The methodology underpinning the calculations for the example of the Option 1 does not reflect accurately the carbon savings achieved by each technology over their lifetime. This is because:

- the carbon factor values of generation technologies which are used in SAP can be reviewed by DECC. DECC implemented an update of the emission factors which are used to calculate scores under ECO savings, as explained in Government response to the discussion paper on converting SAP/RdSAP 2012 CO2e to SAP/RdSAP 2009 CO2 emissions (here, p4).
- the annual heat production and the capacity of a generator are two different concepts. The annual amount of heat supplied by each generator connected to a district heating system is intrinsically dependent on degree days (climatic conditions) because some generators are used to supply the base load demand and some other supply the peak load demand. Ofgem will have to use an approximate figure for the heat supplied by each generator.

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