

THE BERKELEY GROUP PLC

RESPONSE TO THE CALL FOR EVIDENCE FOR THE REVIEW OF BARRIERS AND INCENTIVES TO DISTRIBUTED ELECTRICITY GENERATION, INCLUDING COMBINED HEAT AND POWER

1. INTRODUCTION

- 1.1 Thank you for publishing in November 2006 a Call for Evidence for the Review of Barriers and Incentives to Distributed Electricity Generation, including Combined Heat and Power (the "**Call for Evidence**").
- 1.2 We find the Call for Evidence a constructive contribution to the important debate around distributed electricity, and are pleased to set out below the response (the "**Response**") of The Berkeley Group plc ("**Berkeley**").
- 1.3 This Response:
- (a) briefly describes the Berkeley Group and its development projects involving distributed energy solutions – see paragraph 2;
 - (b) set outs Berkeley's interest in the distributed electricity industry – see paragraph 3;
 - (c) summarises the structure of a mixed use urban regeneration scheme currently under development by Berkeley which will be supplied by an embedded CHP Plant (the "**Scheme**") – see paragraph 4;
 - (d) explains some of the characteristics of the Scheme which may call for innovative solutions to its energy needs – see paragraph 5; and
 - (e) identifies some of the regulatory issues which, as far as we can see, represent potential barriers in the implementation of a CHP energy solution at the Scheme – see paragraph 6.
- 1.4 Attached at Annex A to the Call for Evidence is a list of questions on which representations are sought. In preparing this Response, we have considered that it is more helpful to set out the background and issues as set out above rather than to seek to make representations to each question in the order to which they are listed in Annex A. However we do identify in Annex A to this Response which paragraphs of the Response are relevant to which questions in Annex A in the Call for Evidence.

2. BERKELEY GROUP

- 2.1 Berkeley, a FTSE 250 company, is a leader in the business of urban regeneration, with over 95% of development taking place on brownfield land. Berkeley operates through a diverse range of regional companies, including its principal divisions Berkeley Homes, St George and St James Homes. Berkeley's talented and experienced management team consistently demonstrate the vision needed to develop attractive and sustainable developments for our customers, whilst extracting high value from the land we develop.
- 2.2 In recent years Berkeley has broadened its portfolio from its traditional detached developments to include a multiplicity of medium to large-scale developments incorporating, mixed use schemes, traditional executive homes, riverside apartments, refurbished historic buildings and urban loft spaces. Berkeley now has unrivalled expertise in creating sustainable communities within complex regeneration schemes on brownfield sites.
- (a) Berkeley is currently developing a number of major regeneration schemes which involve distributed energy solutions using CHP, CCHP and renewable technologies

These developments comprise in excess of 3200 residential units, with commercial and retail space. In addition we are presently and actively considering CHP and CCHP on a number of other schemes, totalling a further minimum of 2500 residential units.

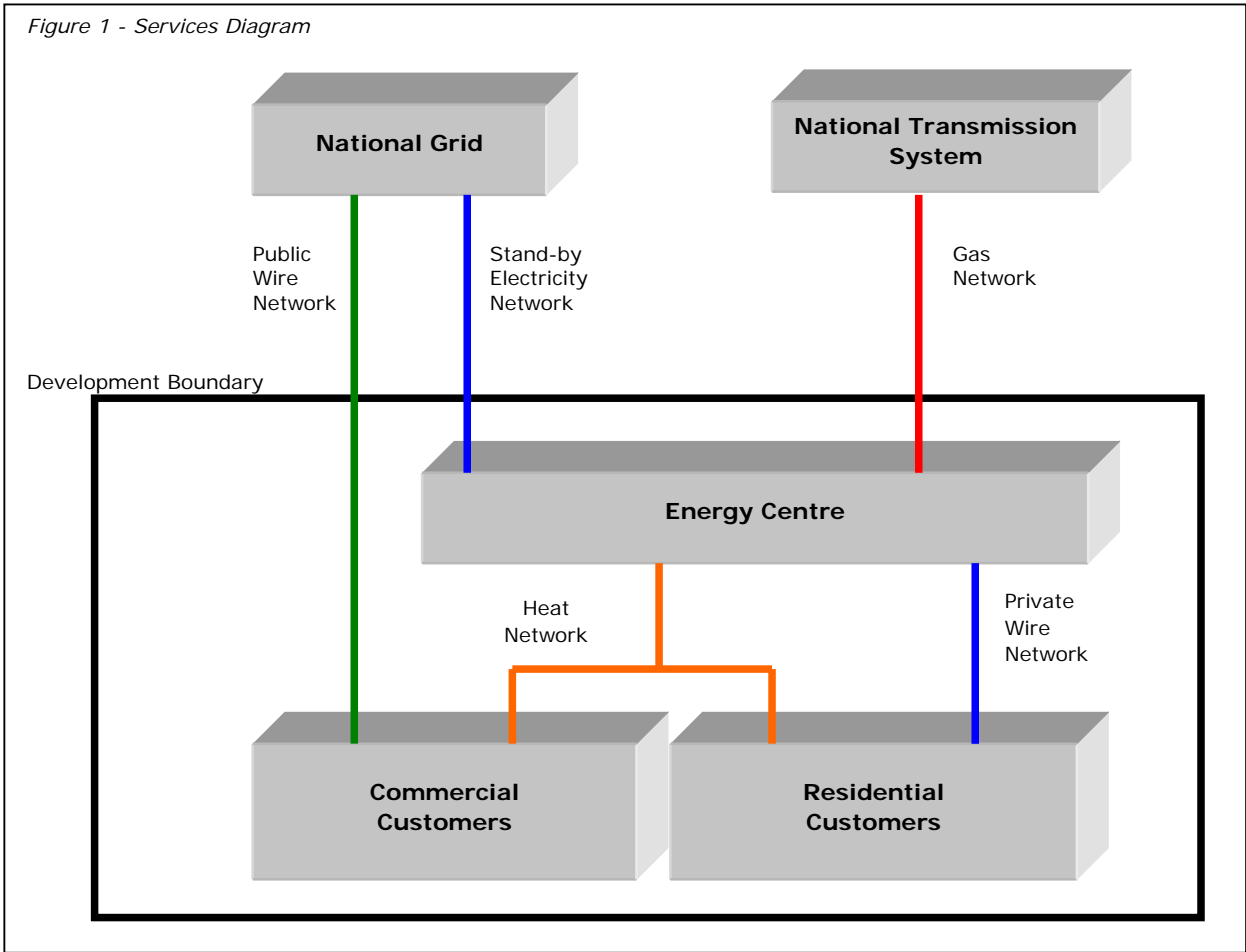
3. BERKELEY'S INTEREST IN DISTRIBUTED ENERGY

- 3.1 Berkeley is keen to contribute to the further development of distributed energy in the UK for a number of reasons.
- 3.2 First, and most importantly, Berkeley recognises the importance of the development of distributed energy to addressing climate change and security of energy supply: reasons of fundamental importance to all of us.
- 3.3 Secondly, we believe that Berkeley's environmental performance has a direct affect on Berkeley's ability successfully to market its development projects. We expect this trend to continue and strengthen, not least following the introduction in the UK of mandatory Energy Performance Certificates in 2006 pursuant to the EU Energy Performance of Buildings Directive (2003).
- 3.4 Furthermore, and especially as regards any large-scale schemes which are referable to the Greater London Authority policy, it is, and is likely to remain, a planning consideration that energy is generated locally, resulting in the necessity to consider CHP as a solution.

4. CASE STUDY –STRUCTURE

We set out below, as a case study, a description of the Scheme. This is the Berkeley scheme currently under development where we have made the most progress on distributed energy issues.

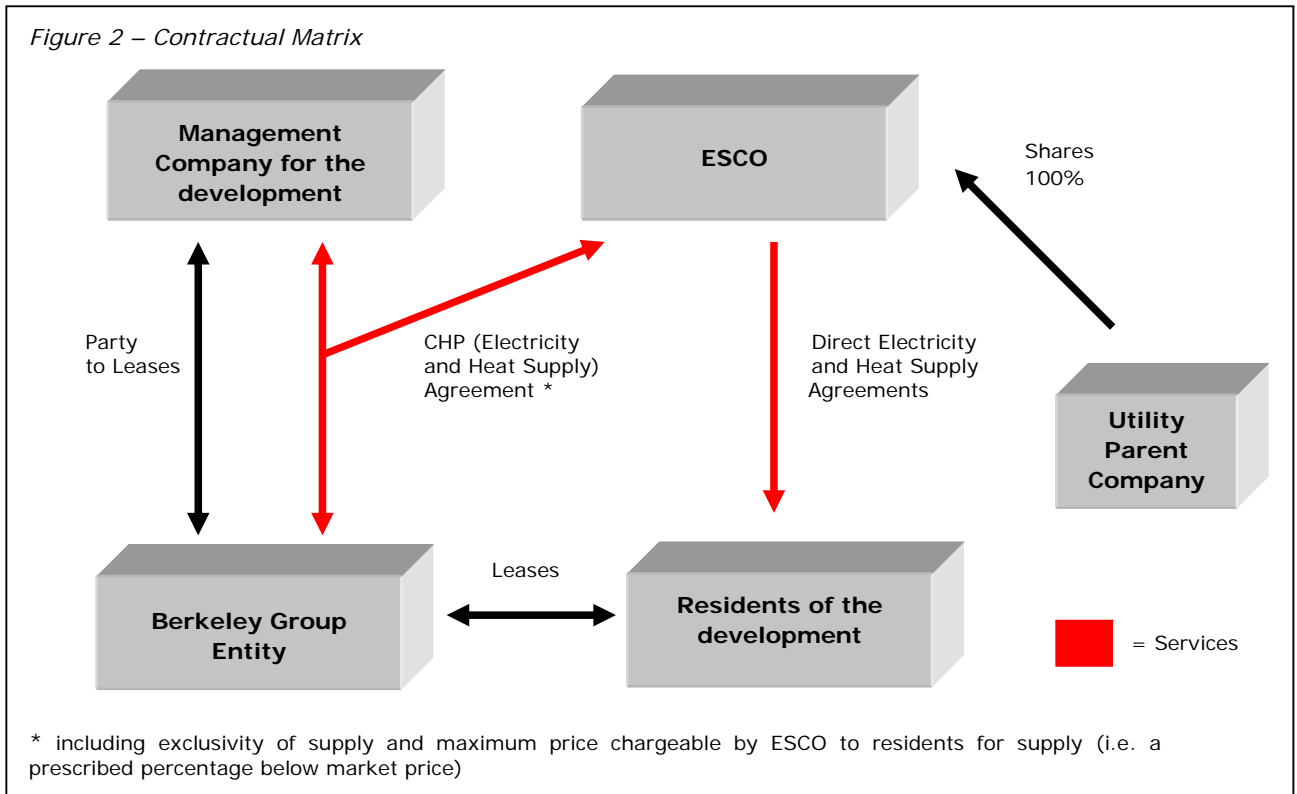
4.1 **Scheme Structure**



As shown above on a pictorial basis, the energy flows from the Scheme involve:

- (a) a gas network over which gas would be transported from the National Transmission System to one gas fired combined heat and power plant ("**Energy Centre**");
- (b) a public wire network from the National Grid directly to commercial customers (i.e. the network by-passes the Energy Centre) at the development. Only electricity from the National Grid would be transported over this network;
- (c) a private wire network between the Energy Centre and residential customers over which electricity generated by the Energy Centre would pass;
- (d) a connection from the National Grid to the Energy Centre to allow electricity to be drawn from the National Grid if required; and
- (e) a heat network delivering heat from the Energy Centre to both residential and commercial customers.

4.2 **Contractual Matrix**



As shown above on a pictorial basis, the contractual matrix for the Scheme involves:

- (a) leases relating to the residential and commercial units at the development to which Berkeley, the management company for the development ("**ManCo**") and individual residents are party. Berkeley and ManCo are obliged pursuant to the leases to provide residents with various services including heat and power;
- (b) a CHP Agreement between the ESCO (which is 100% owned by a major utility company), ManCo and Berkeley under which:
 - (i) Berkeley and ManCo agree to provide the ESCO with exclusive rights to supply heat and power to domestic residents and heat to commercial residents at the development;
 - (ii) the ESCO agrees that any price it charges domestic customers for the provision of power may not exceed a maximum price prescribed by way of a formula which sets a permanent fixed percentage discount against the market price for power for domestic residents at the development;
 - (iii) the gas, wire and heat networks, and the Energy Centre, are to be owned/leased by the ESCO. On termination or expiry of the CHP Agreement, those assets (excluding any regulated assets) transfer/revert to the relevant Berkeley company; and
 - (iv) ESCO obligations under the CHP Agreement are guaranteed by its parent, and

- (c) Direct Heat and Power Supply Agreements between both domestic and commercial residents at the development and the ESCO.

In order to protect its reputation and to ensure that the units are marketable both initially and on re-sale, Berkeley is motivated to ensure that the terms of this arrangement impose robust obligations on the ESCO in relation to heat and power supply.

5. CASE STUDY – CHARACTERISTICS

The Scheme has a number of characteristics which are relevant to how energy is supplied to the development. We have no reason to believe that these characteristics are in any way unusual or unique to the Scheme. Indeed anecdotal evidence suggests that similar issues arise elsewhere in other schemes.

5.1 Heat-led generation

- (a) The Chancellor's Budget speech on 26 March 2006 called for the UK's supply of energy to be "environmentally sustainable" and noted that by 2016 all new dwellings must be net zero carbon. Part L of the Building Regulations (2006) requires that as of 6 April 2006 all new dwellings must achieve annual carbon emissions ("**carbon footprint**") which are less than the carbon footprint of a prescribed notional reference building as detailed within the regulations themselves (i.e. a benchmark threshold).
- (b) The London Plan, the Mayor of London's spatial development strategy which is one source of requirements relating to planning consents within London, already provides a target of 10% carbon reductions through on-site renewable energy generation for new dwellings being built today. The latest review of the London Plan resulted in the recommendation that the permitted carbon emission levels for new dwellings be reduced by a further 20% (10% with respect to passive energy reduction and 10% with respect to renewable energy reduction) by 2008.
- (c) In these circumstances, local generation is attractive because, as set out above, it helps to reduce the carbon footprint of a dwelling which is now a requirement of planning legislation. The trend at the moment in the UK is for planning policy to encourage if not directly mandate the use of local generation as an energy solution for future developments and we believe that this trend will continue to grow over the next decade or so.
- (d) Heat is a normal by-product of the generation of electricity. Power stations connected to the National Grid will dump heat produced into the atmosphere. Some experts estimate that up to 50% of the energy value of the fuel is dumped in this manner. Clearly, this is unattractive from a sustainability perspective and does little to reduce the UK's overall carbon footprint as a nation.
- (e) Local generation is very efficient in comparison as generators can be sized so that all of the heat energy produced as a by-product of the local electricity generation is utilised rather than being dumped into the atmosphere. In simple terms, a CHP plant configured to meet the maximum anticipated power load for a scheme will generate significantly more heat than required to meet that scheme's demand for heat. The surplus heat will therefore need to be dumped.
- (f) For this reason, Berkeley is configuring the Energy Centre to meet the Scheme's maximum anticipated demand for heat (i.e. the Energy Centre is heat-led). As a result, the Energy Centre will be unable to meet a significant percentage of the Scheme's maximum anticipated power demands. We understand that CHP plants constructed to supply heat and power to predominantly residential developments will generally only be able to generate between 40 – 60% of that development's

electricity demand because they will be sized to be heat-led generators. This means that the Scheme and others like it need to be configured to allow for significant quantities of power to be imported from the National Grid. These characteristics have a number of regulatory consequences as explained in paragraph 6 below.

- (g) If, however, Berkeley were to configure the Energy Centre so as to meet the Scheme's maximum demand for power (i.e. the Energy Centre is power-led), then the Energy Centre would emit significant quantities of wasted heat (i.e. all heat generated in excess of the heat demand within the Scheme). Such emissions would be unacceptable to Berkeley for the environmental reasons as set out in paragraph 3. In addition, they would make it less likely that the Scheme would meet the applicable planning conditions.

5.2 **Distinctive Demand Profile**

- (a) As mentioned above, the Scheme is a mixed scheme comprising both residential and commercial units. The nature of the Scheme and therefore its power and heat demand profile are determined at the planning stage. The planning process tends to require that large-scale schemes be mixed use (i.e. a mixture of domestic and commercial residents).
- (b) At the Scheme, variations in demand in any 24 hour period are expected to be significant. In simple terms, notwithstanding the presence of commercial units within the Scheme, demand for heat and power from the Energy Centre will be significantly higher early in the morning and in the evening than during the middle of the day and at night. This is because the power to be supplied to commercial units comes directly from the National Grid (for reasons described in paragraph 6.2 below). The demand profile of commercial power users cannot therefore be used to mitigate the significant decreases in demand during the middle of the day and at night from residential customers.
- (c) As a result of the Scheme's demand, for significant periods of each day, the most efficient approach will be:
 - (i) not to run the Energy Centre either at full output or at all;
 - (ii) to provide power by means of power imports from the National Grid; and
 - (iii) to meet the Scheme's demand for heat by the release of heat stored within highly insulated thermal stores containing water in the Energy Centre.

This characteristic also has a number of regulatory consequences as explained in paragraph 6 below.

- (d) We believe that, in these areas, the Scheme is different from the widely publicised London ESCO and Woking Council schemes as they have:
 - (i) a greater demand for heat and power (e.g. we estimate the Woking Council scheme is approximately 30 times the size of the Scheme); and
 - (ii) a smoother overall demand profile as a result of a different mix of residential, commercial and public e.g. schools.

These fundamental differences mean that the regulatory solutions available to Woking Council or the London ESCO may not be available or, if available, may not be attractive from a commercial perspective for the Scheme.

- (e) As discussed above, a scheme like the one adopted by Woking Council can also potentially take advantage of tri-generation technology. This technology allows the on-site generation of electricity, heat and cooling (e.g. comfort cooling in hospitals or offices). A tri-generation scheme could potentially be electricity led as demand for cooling can be met by using the excess heat that would otherwise be dumped into the atmosphere. This solution reduces the wasted heat, thus mitigating the Urban Heat Island effect which has been identified as particularly problematic in London. The excess heat that would otherwise be wasted in summer could be converted to usable chilled water supplies via the use of an absorption chiller.
- (f) This option to be electricity-led means that a tri-generation scheme could potentially generate sufficient electricity on a net annual basis to meet the entire power demand for those electricity consumers within the scheme (see paragraph 5.1 regarding the limits of heat-led CHP with respect to meeting scheme electricity demands). We note, however, that this approach may require the export of excess electricity to the grid at low demand times like, for example, the middle of the night. This would obviously affect the commercial viability of such a scheme as export of electricity to the grid at such times may not achieve very high prices.

5.3 Phased Development

- (a) The first phase of the Scheme is underway. The Scheme is structured to allow for several subsequent phases. This is a very common approach. A developer will look to sell a maximum number of units at any one time so as not to saturate the market and erode the potential to realise maximum sales prices on the relevant units and therefore maximum margin for its business. The maximum number will vary depending on the nature and location of the development itself but as a general observation it is likely that a developer would budget to sell about 100 units per year.
- (b) The sale and construction process are closely interlinked in residential developments. For example, a development construction programme will be in step with a sales programme so that, in a best case scenario, the developer sells the last unit of the development at the same time as construction of the relevant unit is completed. The phased approach allows the developer to manage its exposure to the risk of carrying stock (i.e. units that have not sold upon completion for which the developer receives no return).
- (c) It is also worth noting that as most developments (including the Scheme) are phased, the regulatory requirements applicable at the beginning of such development will not necessarily remain the same throughout the various phases. This may prove very challenging for a developer to satisfy new regulatory requirements for subsequent phases of a scheme when in fact the changes required impact on the development as a whole.
- (d) It would be helpful, as explained in more detail below, for the DTI or Ofgem to provide some clarification on how the various thresholds to licensed exemptions apply across a multi-phase but single site development.

5.4 Exclusive right to supply residents

- (a) The development of an Energy Centre to supply the Scheme involves significant capital expenditure by the relevant ESCO. In our experience in return for making this capital expenditure, ESCOs typically require exclusive rights to supply units comprising a scheme with heat and power (recognising that the power may be either imported from the National Grid or generated at the CHP plant).

- (b) From the residents' point of view the ESCO's exclusive right to supply means an obligation on their part to take heat and power exclusively from the ESCO (i.e. no ability to switch providers). Such an obligation is potentially an agreement which appreciably prevents, restricts or distorts competition and which may affect trade within the UK or any part of it. As such, it would be contrary to section 2(1) of the Competition Act 1989 ("**Competition Act**"). In certain circumstances an agreement of this type may benefit from an individual exemption under the Competition Act if, broadly speaking, the benefits to which it gives rise outweigh its anti-competitive effects. It is for the parties themselves to assess whether the agreement in question merits such exemption.
- (c) Given the advantages which embedded distributed energy provides, some guidance from the DTI or Ofgem on what restrictions on competition are acceptable with respect to CHP power generation would be helpful.

6. REGULATORY ISSUES

We set out in this paragraph a detailed analysis of the regulatory issues relating to mixed use schemes. In summary we believe that the regulatory regime is too rigid and, on a number of key points, unclear. These issues impede development of distributed energy solutions for mixed use schemes.

Under section 4(1) of Electricity Act (1989) (the "**Act**") it is an offence to generate, transmit, distribute or supply electricity without having first obtained a licence. This general licensing requirement is subject to the action being undertaken not falling under one of the exemptions listed in the Electricity (Class Exemptions from the Requirement for a Licence) Order (2001) (the "**Order**").

6.1 *Generation*

- (a) The most likely exemption to be relied upon by developers in relation to generation is Class A which applies to small generators. The Class A exemption provides that persons are exempt from obtaining a generation licence if they do not provide more electrical power from one generating station than 10MW or 50MW (in the case of a generating station with a declared net capacity of less than 100MW).
- (b) The Class A exemption with regard to generation is not in general problematic as it is unlikely that CHP plants for schemes would be sized so as to generate in excess of 50MW. For example, the Energy Centre for the first phase of the Scheme is sized so as to generate at a maximum of 0.2MW/h.

6.2 *Distribution*

- (a) Class A Exemption
 - (i) The Class A exemption only applies to persons distributing less than 2.5MW to domestic consumers. This exemption may be useful to small to medium scale developments. It will not assist with large scale developments (i.e. 2,000 units and above) which will require distributed electricity in excess of 2.5MW.
 - (ii) The Class A exemption does not apply to persons distributing energy to commercial customers. It does not therefore apply on mixed use schemes.
 - (iii) We note that the 2.5MW limit applicable to the Class A exemption applies to all power distributed by an ESCO. This prevents an ESCO distributing power to multiple sites with an aggregate load greater than 2.5MW but where each individual site's load is less than 2.5MW. This seems an unnecessary

restriction, given that a utility company could circumvent it by incorporating site-specific ESCOs.

(b) Class B Exemption

(i) The Class B exemption provides that persons are exempt from obtaining a distribution licence if they do not distribute more than 1MW from "*any distribution system*" to supply domestic consumers **and** that electricity is generated from a generating station embedded "*in the same distribution system*".

(ii) "*Stand-by electrical power*"

(A) In principle this exemption prevents the ESCO from importing power from the National Grid. However, a person is also entitled under the Class B exemption to receive "*stand-by electrical power*" from the National Grid without foregoing its right to the Class B exemption. "*Stand-by electrical power*" is defined in Note B1 to the Class C distribution exemption as being:

"electricity supplied periodically or intermittently to a person to make good any shortfall in the availability of electricity to that person from its own generation for the purposes of its supply of electricity to domestic consumers seeking such supply, where such shortfall arises from the generating station being wholly or partly out of commission for a temporary period."

(B) It is unclear to what extent an ESCO may rely on the stand-by electricity proviso to draw electricity from the National Grid. We are aware that the DTI has expressed a view in informal discussions that an ESCO which, for operational reasons, turns off its CHP plant overnight and draws power entirely from the National Grid for that period would not be in breach of this provision irrespective of the fact that the CHP plant is not out of commission and that this occurs each night (i.e. not for a temporary period but rather a regular, repetitive period which occurs each day for significant durations).

(C) In addition to the question of how frequently an ESCO may rely on the stand-by electricity proviso, it is also unclear whether a maximum percentage of the Scheme's power load can be met by stand-by electricity drawn from the National Grid, without foregoing the exemption. If so, guidance on the level of that percentage would be helpful as reliance on a high percentage of electricity drawn from the National Grid is necessary for high grade commercially designed CHP installations to avoid rejecting heat and to maintain a low carbon footprint.

(iii) *Distribution to Domestic Customers*

The Class B exemption only expressly applies to distribution to domestic customers and is silent on its application to commercial customers. It is hard to see therefore that this class exemption could apply to distribution to mixed use schemes (i.e. residential and commercial).

(c) Class C Exemption

(i) The Class C exemption is available to any person "*who do[es] not at any time distribute electrical power for the purpose of giving a supply to*

domestic consumers or enabling a supply to be so given with that electrical power".

- (ii) Given the wording of this class exemption, however, we consider it is only available to persons who distribute to non-domestic customers and as such the Class C could not apply to mixed use schemes.
- (iii) We note that there are not thresholds for this exemption. As a result, a person can distribute as much or as little electricity to commercial customers as it desires relying on this exemption.

(d) Mixed Use Schemes

- (i) As explained above, none of the three exemptions in relation to distribution apply to mixed use schemes. As explained in paragraph 6.3(a) below, the Order does provide an exemption for mixed use schemes in relation to supply.
- (ii) We wonder why the availability of distribution and supply exemptions are unaligned in this way. Clearly the lack of an exemption in relation to distribution applicable to mixed use schemes makes it in practice difficult to rely on the exemption in relation to supply for such schemes.

6.3 **Supply**

There are only two possible supply exemption available to ESCOs involved in distributed energy schemes: Class A and Class C.

(a) Class A Exemption

- (i) The Class A exemption provides that persons are exempt from obtaining a supply licence if they only supply a maximum of 5MW of electricity of which no more than 2.5MW is supplied to domestic customers and the electricity they supply is generated by themselves. This exemption also provides that a supplier shall include any body corporate which is associated with the supplier.
- (ii) A person relying on the Class A exemption may not supply more than 5MW of which not more than 2.5MW is supplied to domestic consumers. So, again while the Class A exemption may be available for initial phases of a scheme, it prevents an ESCO from growing its business on future schemes or subsequent phases of the same scheme. This exemption may also be problematic for a developer if that developer chooses not to outsource the provision of heat and power to an ESCO. The developer may have CHP plants in operation at a number of sites and retain a leasehold interest in those sites and also in any residents' management company established in relation to those sites. It is likely in this scenario that the developer would breach the threshold limits provided under the Class A exemption.
- (iii) The limits applicable to the Class A exemption are measured on a group-wide basis. As a result, a supplier cannot circumvent the limits by incorporating site-specific ESCOs. This seems to be a major barrier to companies entering the market to supply power to schemes power generated by means of a distributed energy solution.

(b) Class C Exemption

- (i) *Summary of Class C Exemption*

The Class C electricity supply exemption provided under Schedule 4 of the Order is a two step test. A person wishing to rely upon the exemption must:

- (A) supply electricity:
 - (aa) which it generates (Class C(1)(a)); OR
 - (bb) which it generates together with electricity supplied to it by a licensed supplier (Class C(1)(b)); AND
- (B) meet all of the following:
 - (aa) The electricity it generates from a generating station is only provided to one or more consumers ("**End-users**") who each occupy premises that are:
 - On the same site as the premises where the generating station is located; OR
 - not on the same site but receive electricity from that generating station over private wires; AND
 - (bb) the End-users consume all electricity provided by the supplier at their premises; AND
 - (cc) the supplier provides no more than 100MW in total to the End-users collectively within only 1MW of that supply being provided to domestic consumers (Class C(2)(c)(i)(bb)).

(ii) *Meaning of "Generating Station"*

- (A) Note C.1, which appears in Schedule 4 of the Order in relation to the Class C electricity supply exemption, provides that two or more "generating sets" which (i) are operated by the same person or bodies corporate; and (ii) are on the same site as each other, are treated as a single generating station for the purposes of the Class C electricity supply exemption.
- (B) The Order goes on to explain that generating sets are considered "on the same site" if they are
 - (aa) on the same premises as each other,
 - (bb) on premises immediately adjoining each other, or
 - (cc) on premises separated only by a road, railway, waterway or other premises occupied by the supplier or an associated body corporate of the supplier.

(iii) *Multi-phase Developments*

- (A) The Class C exemption may apply for the initial phase of a scheme. However, subsequent phases are likely to trigger the 1MW limit on supply to domestic customers.
- (B) Given the need to maintain a balance between domestic and commercial use, this limit constrains the overall size of a scheme and therefore potential reductions in the associated carbon footprint.

- (C) The restriction in Note C.1 whereby "generating sets" on the same "site" are deemed to be part of a single generating station prevent subsequent phases' energy needs being met from additional CHP plants operated by the same ESCO. Even without this restriction, such a solution may not be as cost effective as allowing expansion of the original generating station.
- (D) The restriction in Note C.1 would oblige "generating sets" supplying different phases of a scheme to be operated by different persons. This may not be the most cost effective model or the best in terms of contractual risk management.

6.4 ***Consequence of Regulatory Uncertainty***

- (a) As indicated above, there is some significant uncertainty as to the application of the regulatory regime to distributed energy solutions supplying mixed use developments.
- (b) As mentioned in paragraph 6 above, the Act provides that generating, distributing or supplying electricity without a licence is an offence (section 4) provided that no class exemption applies with respect to such activity, and specifies criminal sanctions.
- (c) From Berkeley and ManCo's point of view, the starting-point would in the normal course be that, should the ESCO be found to be generating, distributing or supply electricity without either a licence or being able to rely on one of the exemptions, the CHP Agreement terminates and the relevant assets transfer to the relevant Berkeley company (as explained in paragraph 4.2(b)(iii) above).
- (d) The transfer of asset ownership may not be helpful if there is a regulatory issue. If the ESCO cannot rely on specific exemptions in order to provide generation, distribution and supply of electricity to residents, then it is unlikely that any such exemptions will be available to ManCo. It is very unclear what rights DTI and/or OFGEM would have to require operation of the distributed energy solution to cease. This is a key concern for Berkeley given the absolute need to ensure security of heat and power supply to the residents.
- (e) We therefore consider that:
 - (i) the areas of regulatory uncertainty (including those areas referred to above) should be minimised; and
 - (ii) the extent of any powers which OFGEM and/or DTI have to require generation to cease should be clarified.

7. **CONCLUSION**

Finally, we would reiterate that we find the Call for Evidence a constructive contribution to an important debate. We hope that the Response is helpful. We would be very pleased to discuss any of the points made in the Response.

ANNEX A

Questions in Annex A to the Call for Evidence	Relevant paragraphs of the Response
1. The environmental benefits of DG are technology and application specific. If DG is to be further encourage how can the best DG opportunities be identified and any unnecessary barriers removed?	
2. The licensing regime has developed in stages since 1990. Is there evidence that it is currently acting as an unnecessary barrier to DG? If so, what actions could be put in place to address this? In particular, there are a number of fixed transaction costs relating to connection, licensing and permissions, which could be said to disadvantage smaller projects. What more could be done to ensure that these costs are proportionate to the size of DG projects.	6.1, 6.2 and 6.3
3. Are the incentives on DNOs sufficient to encourage them to connect smaller generators with minimum fuss and cost? While the connection and use of system arrangements managed by the distribution and transmission companies are well established, some still see them as a barrier to DG. Is there project-specific evidence of this? If so, we would welcome ideas that could help address such problems, while recognising the need for continued investment in the transmission and distribution systems. What actions should distribution and transmission companies take to facilitate DG?	5.1, 5.2 and 6.2(d)
4. Private networks are being increasingly presented as a way to help DG. Is this approach one that should be encouraged or is it a short-term expedient necessary to capture more value for DG? If private networks do expand, how best can customers connected to them be protected and competition preserved?	5.4
5. A number of possible options, largely concerning licensing and the terms of trade between distributed generators and the existing electricity market, have been suggested by various proponents of DG. We would therefore particularly welcome views on the costs and benefits (to different stakeholders) of the following options: (a) Increasing the limits for distribution and/or supply licences, or introducing a simpler licence. How would consumers be protected, both in respect of competition and also more generally, including safety? (b) The Climate Change & Sustainable Energy Act has caused the industry to actively pursue the issue of export reward for microgeneration . Is there confidence that this will be successful and should this be extended to unlicensed generation that does not qualify as microgeneration under the Act? Do consultees have any other suggestions on how to increase the amount	6.1, 6.2, 6.3 and 6.4

suppliers pay for exported electricity?	
6. In view of the cost reductions in microgeneration that are likely to come into effect over time, what evidence is there that further incentives are required to encourage take up of such devices either by householders, communities or businesses?	5.4
7. Are there specific barriers to the development of renewable projects that connect to the distribution network? How could they be addressed?	
8. Are there other approaches which could be taken to promote the connection of renewables projects of all sizes to the distribution system?	
9. Estimates of the cost-effective potential for CHP, both industrial and community or commercial CHP, vary greatly. We would welcome further views, supported by evidence, on its realistic potential and the practical constraints to its development in each of the sectors. Considering community and commercial CHP, we would welcome ideas both on the feasibility of retrofitting CHP to existing properties, and whether there are any particular barriers to incorporating CHP in new developments.	
10. What more could be done to make CHP more cost competitive? For example, are there more innovative ways of linking up heat demands for CHP schemes to ensure that any surplus heat is used effectively?	5.1 and 5.2
11. Research indicates that the initial capital outlay is a key barrier to the growth of community and commercial CHP because the returns on investment are much less certain compared to larger energy projects. However, one study suggests that if the high start up costs can be managed, a network will grow, adding customers and becoming economic over time. What do you see as the primary barriers to the take up of community/commercial CHP? If this market grows, would new regulatory measures be required, to protect consumers who might effectively be locked into such projects for their heating needs?	5.4, 6.1, 6.2, 6.3 and 6.4
12. A number of incentives are already in place to support community/commercial CHP. What more could the Government do to encourage such schemes, for example through the planning system? What should the balance be between creating incentives on the one hand and communication or education initiatives to ensure that such schemes are seriously considered by those involved in planning, developing or upgrading buildings on the other?	
13. Are there any lessons from the Netherlands or Denmark that could be applied to the different UK economic and social context, to increase beneficial take up of distributed generation?	

<p>14. Work is already underway (e.g. the Microgeneration and Biomass Strategies in particular) to tackle the main barriers to renewable heat. Are there any significant barriers that are not being tackled by these strategies? If so, what further action does Government need to take?</p>	
<p>15. How should Local Authorities and RDAs be further encouraged to play their part?</p> <p>(a) is the best approach to focus on overall emission reductions, leaving them to make their own choices as to the means of achieving them,</p> <p>(b) or should there be targets/encouragement specifically for DG?</p>	
<p>16. Is there a need for better advice including case studies and lessons learned for Local Authorities and/or housing/commercial developers on distributed generation?</p>	