RESPONSE TO EUROPEAN COMMISSION CONSULTATION

STATE AID 34947 (2013/C) (EX 2013/N) UK INVESTMENT CONTRACT (EARLY CONTRACT FOR DIFFERENCE) FOR THE PROPOSED HINKLEY POINT C NEW NUCLEAR POWER STATION

LONDON. UK. 4.4.14

1. Collective Response

1.1 This response from a very large set of key UK and pan-EU energy policy and civil society stakeholders, includes cross-party UK Members of Parliament serving on UK energy and environment Parliamentary Committees, high-level UK and pan-EU energy industry practitioners and experts, a very broad range of independent UK academics and consultants, and an element of UK and pan-EU Members of the European Parliament.

2. Context

2.1 Recent climate research confirms that, over the next few decades, there will be unprecedented global change affecting European human welfare and environmental systems. EU policy already seeks to mitigate this change through low-carbon policies but adaptation will clearly be necessary. Achieving this change and adaptation at the pace and scale required will not be straightforward, and future energy choices and trade-offs will play a critical role, with significant implications for member state and EU energy policy. Creating a low carbon and resource efficient economy will involve major structural changes to the way EU States work and live, including how we source, manage and use our energy.

2.2 The challenge of achieving a transition to sustainable energy will involve different options. These options will vary in their acceptability to differing sections of EU policy and public energy stakeholders, and will also vary from member state to member state - given their differing cultural, industrial, and energy landscapes. So we are faced with collective choices - and the European Commission Consultation into whether UK subsidies for new build nuclear contravenes EC State Aid legislation will directly inform these choices.

2.3 For example, an informal group of 12 EU countries[1] 'interested in nuclear power generation' stated in their communiqué following their recent meeting in London in March 2013[2]:

[1] Bulgaria, Czech Republic, Finland, France, Hungary, Lithuania, Netherlands, Poland, Romania, Slovakia, Spain and the UK.

[2] https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/185076/draft_note_informal_ministerial_meeting_eu_countries_nuclear_power_gen.pdf

A number of countries noted that they would continue to closely follow developments in the UK's Electricity Market Reform process in order to assess the applicability of this approach to their own countries.

2.4 The result of the state-aid investigation into HPC will therefore be an important precedent and will have consequences not just in UK but in a large number of other member states. Taken across the full range of public and private actors engaged in energy systems, annual commitments worth many billions of pounds rest on the results of this EC policy appraisal.

2.5 Whilst the UK government had promised the UK public electorate that new nuclear plants will only be built on the condition that they receive no public subsidy, it later adapted its position by stating that State Aid for nuclear would not be considered a subsidy if it were available to other energy technologies. However, it remains true that the particular negotiations around the Investment Contract for Hinkley Point C (HPC) provides for extra support and special conditions for nuclear, exceeding any potential support for renewable energy.

2.6 Although the UK government now confirms that the Investment Contract, credit guarantee, and the establishment of a Strike Price with NNBG[3] would be financed by the State and from resources under control of the state - it now contends that these public subsidies are justified because new nuclear performs a Service of General Economic Interest (SGEI) under Art 107(1) TFEU.

2.7 As a further fall-back position, the UK government argues that even if their plans to subsidise new nuclear fail the criteria for a SGEI, then State Aid subsidies are necessary and proportionate under Art 107(3) (c) TFEU. There are 4 specific 'Altmark' criteria that need to be fulfilled in order to meet the requirements of a SGEI.

2.8 The UK government also contend that state subsidies for new nuclear development at HPC are aimed at the following shared EU objectives: security of supply, diversity of generation, decarbonisation, electricity price stability and affordability. However, along with the Commission, we doubt that the notified measures can be said to realistically address these issues, and question whether the Investment Contract can be viewed as demonstrating that NNBG should be entrusted with a SGEI.

3. Security of Supply

3.1 Putting aside the potential for significant construction cost and time over-runs, the two proposed HPC reactors will not make a timely contribution to UK security of supply, since the reactors are not projected to come on-stream until 2023 at the earliest - and as the Commission notes, the UK government states that any generation adequacy problem is forecast by Ofgem before 2020. Thus the real security of supply challenge occurs well before HPC could begin generation, and it is very likely that

[3] A consortium currently led by EDF incorporating Chinese state-owned companies CGN and CNNC and the reactor vendor Areva.

other less risky, more effective and sustainable options can be deployed to meet any energy gap.

3.2 There is a misconception that all except one of the UK's 8 operating nuclear power plants will be closed in 2023. EDF, the owner of these plants has said that the two oldest plants, Hinkley Point B and Hunterston B, will probably be closed in 2023 to coincide with the proposed start-up of HPC after 47 years of operation. However, EDF has also said that it will apply for life extension for the other five plants with the expectation that their average life would be 42 years. This would mean that these five plants would continue in operation to 2027-31 and potentially longer if they were operated for 47 years. So the perception of a rapid reduction in UK nuclear generating capacity in 2023 is simply misplaced.

3.3 Furthermore, the European Pressurised Reactor (EPR) design planned for HPC is a high-value and high-risk construction project with a marked tendency for significant delay and delay claims, cost growth and investor risk. Taking into consideration the experience of the two EPR new-builds in Finland and France, there can be little confidence that the long-running time and cost over-runs in both countries will be will not be repeated at HPC.

3.3 The Olkiluoto 3 EPR in Finland was originally planned to go online early in 2009, but the plant owners, TVO, do not give an expected completion date - although they now state it will not be before 2018. The 1.6 GW Areva designed EPR, originally priced at EUR 3 billion, was estimated at €8.5bn in 2012 and rising. This fixed price turn-key contract is subject to ongoing legal dispute between the French and the Finns with the former claiming compensation of EUR 1 billion for alleged failures, and the latter demanding €2.4 billion in compensation for delays. Areva have reduced its workforce at the Olkiluoto site and by March 2014, it was not clear what construction work was still being carried out.

3.4 Similarly, in France, EDF have confirmed that their EPR new build at Flamanville is experiencing significant time and cost over-runs. Originally scheduled to start operating in 2012, EDF now hope that the reactor may be operational by 2016. Originally priced at €3.3 billion, the reactor completion is currently estimated at €8.5 billion.

4. Diversity of Supply

4.1 The energy landscape within Europe embraces choices and trade-offs over supply-side, demand-side, transmission and load-balancing infrastructure. European energy policy offers a relatively open and flexible framework in which member states can develop collective action on energy issues. The development of sustainable and affordable low carbon energy remains a growing economic sector with huge potential for job creation. To seek to delimit this diversity through particular State Aid support of nuclear power at the expense of other, potentially more flexible, safe, productive and affordable technologies seems, at the very least, unwise.

4.2 The UK government state that HPC contract will be signed on its behalf by a new 'counterparty body' yet to be established. This body will have a budget of about £1.5bn per year to spend on low-carbon projects up to 2020. Although no budget

commitments have been made beyond that date, the British government will be contractually obliged to provide on-going State Aid to pay the contract for HPC. The cost of this will depend on the prevailing electricity wholesale price - however, it is likely to be in the order £1.2bn for the two HPC reactors. Given the UK government hopes further nuclear capacity will follow on from HPC - even if the budget for new capacity for the counterparty body continues at its current real level, it is likely that very little money will remain for other low-carbon sources, as the counter party body budget will have been largely pre-empted by commitments to nuclear.

4.3 We also agree with the Commission, that the Investment Contract and loan guarantee regimes are addressed specifically at supporting nuclear technology alone. As the Commission concludes:

> Nuclear energy generation has the capacity to crowd out alternative investments in technologies or combinations of technologies, including renewable energy sources, which are likely to emerge in the absence of specific UK State Aid subsidies for new nuclear at HPC.

4.4 The Commission, concerned at the failure to consider a purposeful energy efficiency stimulus as an alternative investment and decarbonisation strategy, notes that:

> The UK considers that gains from demand side measures which go beyond those achieved through existing policies cannot be considered certain, in particular since the demand side market might take time before becoming effective.

4.5 As discussed, HPC will not be functioning until 2023 at the earliest. In contrast, serious energy efficiency policy scenarios show that the UK economy could flourish whilst using significantly less energy. Even without purposeful demand side policies, during this century UK GDP has increased by 58%, whilst overall energy consumption has decreased by 14% (and electricity by 3%) (REF)

4.6 However, DECC seem unresponsive within their forward policy to the very real the potential for significant returns from energy efficiency and demand side management measures. As the Commission states:

> It is unclear what impact the plant might have on commercial activities being undertaken on the demand side of the market… some of these activities, despite the current, relatively embryonic, state of the technology used, are the object of investment by private operators and can be profitable.

5. Decarbonisation

5.1 Reduction of carbon emissions either by energy efficiency measure or development of low carbon energy generation is imperative in a warming world. The key question is whether HPC will prove cost-effective in achieving this goal as compared to other routes.

5.2 We share the Commissions concern about balancing the twin imperatives of decarbonisation and the protection of the environment. Nuclear has been re-framed as a significant response to climate change. However, proposed new HPC reactors, together with radioactive waste stores including spent fuel, will be located on the coast, increasingly vulnerable to sea-level rise, flooding and storm surge associated with climate change. The UK Institute of Mechanical Engineers clearly state that nuclear sites based on the coastline may need considerable investment to protect them against rising sea levels, or even abandonment or relocation in the long term[4].

5.3 Given predicted sea level rise - shoreline erosion, coastal storms, floods, tidal surges and the evolution of 'nuclear islands' stand out as primary concerns at coastal locations. Thus, adapting nuclear power to climate change is likely to entail either greatly increased expense for construction, operation, waste storage and decommissioning - or the incurring of significant costs to the environment, public health and welfare. It is unsettling to note that future likelihood and consequences of flooding risk has not yet been fully assessed by UK regulators.

5.4 Nuclear life-cycle CO2 emissions also occur through uranium mining and milling, transport, fuel enrichment, plant construction, operation, plant decommissioning and waste management. Whilst the reported range of emissions for nuclear energy over the lifetime of a plant is from 1.4 g of carbon dioxide equivalent per kWh (g CO2e/kWh) to 288 g CO2e/kWh, the mean value is 66 g CO2e/kWh[5]. The contribution of nuclear power to decarbonisation may be further relativised, taking into account declining Uranium ore grades. Although emission values are still lower than those of coal or oil (600–1200 g/kWhel), they remain significantly higher than for wind (2,8–7,4 g/kWhel), hydropower (17–22 g/kWhel), photovoltaic (19–59 g/kWhel), and energy efficiency measures (which are *circa* 10 times more cost-effective)[6].

5.5 As the Commission note, it is unclear whether nuclear technology is immature enough to warrant State Aid. Given that the commercial history of nuclear power goes back more than 50 years and that the EPR is clearly evolved from existing designs (rather than being a revolutionary new design), there is no case to argue that the EPR is an 'infant' technology. By contrast, many of the alternatives, such as renewable technologies like solar power, are rapidly developing with significantly real cost reductions.

5.6 Thus, along with the Commission, we question how far UK State Aid for the proposed reactors at HPC really contributes to the sustainable decarbonisation of the UK electricity sector, and of its economy as a whole.

6. Affordability and Price Stability

[4] Institution of Mechanical Engineers (2009): *Climate Change: Adapting to the Inevitable*, Institution of Mechanical Engineers, Westminster, London.
[5] Sovacool B.K. (2008): *Valuing the Greenhouse Gas Emissions from Nuclear Power*: A critical survey, Energy Policy 36, pp. 2940-2953.
[6] Wallner A., Wenisch A., Baumann M., Renner S. (2011): *Energy Balance of Nuclear Power Generation - Life-cycle Analysis of Nuclear Power: energy balance and CO2 emissions*, Österreichisches Ökologie-Institut, Austrian Climate and Energy Fund, Vienna.

6.1 It is difficult to comprehend how HPC might contribute to affordability, price stability and least-cost for the UK energy consumer - when the agreed strike price is overwhelmingly likely to contribute to significantly higher energy prices. However, it does remain true that the deal would prove very profitable to NNBG during the very lengthy 35-year contract period. UK government proposals for 35-year inflation indexing of the Strike Price will contribute to granting NNBG further significant returns

6.2 Several emergent renewable energy technologies may well prove more cost-effective than HPC. The HPC proposal is being offered a much longer contract compared to large scale renewable energy (35 years as opposed to 15 years). In addition the bulk of the financing of HPC will be given government loan guarantees which will not be available to most renewable energy schemes, putting renewable energy schemes at a considerable disadvantage.

6.3 The opportunity cost of the investment in HPC is investment in renewable energy generation. The UK government 'Levy Control Framework' imposes a strict cap on additions to cross-incentives for low carbon energy sources financed from effective levies on the bills of energy consumers. Therefore, proposed investment in HPC will crowd out investment in renewable energy for the length of the CfD (which is 35 years from around 2023), regardless of whether renewable energy options are competitive in this very long-term policy window. In the process, progress towards achieving overall EU targets for renewable energy will be compromised.

6.4 A recent report by 'Carbon Connect', a UK cross-party think-tank chaired by former Conservative energy minister Charles Hendry, concludes that returns for French utility EDF and other investors in HPC would be much higher than for other projects, with expected equity returns at around 19-21%. These returns are substantially higher than expected equity returns on Private Finance Initiative projects and regulated electricity network assets[7].

6.5 Further analysis suggests that NNBG could earn a return on equity well in excess of between 20-35%, with cash dividends of between £65-80 billion payable during the life of the Contract for Difference (CfD). It should also be noted that paying for these dividends would still allow EDF to pay off all construction cost debt within the terms of the CfD. Taking as read current construction costs at £8 billion per reactor, this translates to £5 per MW - making HPC the most expensive nuclear power station ever built[8].

6.6 We conclude that this cumulative significant financial over-compensation constitutes incompatible State Aid, and does not fit within the SGEI Framework.

7. Market Distortion

7.1 As the Commission points out, the role of State Aid control is increasingly important in EU electricity markets, and any investment in nuclear should be carried out in ways which do not distort competition.

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[7] Carbon Connect, Leveque F and Robertson A (2014): *Future Electricity Series Part 3: Power from Nuclear*, Carbon Connect, Policy Connect, London.

[8] REF PA Liberum, 2014

7.2 We concur with the Commissions analysis that since nuclear power has been and is being considered a viable commercial activity - then HPC should not require special financial support from the UK government. In other words, the base-load electricity that HPC may generate could and should be provided through normal market mechanisms. In this context, Finland has announced a deal to build a reactor that will be paid a power price of less than €51 per MWh - in other words €60 per MWh less than that proposed for HPC. And French consumers are currently only paying €45/MWh for nuclear electricity

7.3 Furthermore, we agree with the Commission that the CfD provides the utmost certainty of a stable revenue stream under lenient conditions by entirely eliminating market risks from the commercial activity of nuclear electricity generation for the very long 35-year contract length. Rather than arriving at length of Contract through transparent and objective means, it seems clear that the contract has been tailored to the requirements of NNBG. Proof of this is that these contract lengths are not available to other CfDs - particularly those for renewable energy. In this sense, UK government dealings with NNGB seem deeply discriminatory.

7.4 The creation of targeted State financial structures such as the Investment Contract and the credit guarantee seem clearly specifically designed to develop HPC at the expense of other low carbon investments. Given this level of financial support is unavailable to other low carbon technologies, it is certain to significantly distort competition and strongly impact on trade between Member States. Here, we agree with the Commission that the Investment Contract and credit guarantee would have substantial repercussions on pan-EU trade and competition and involve State Aid within the meaning of Art 107(1) TFEU.

7.5 In order to facilitate the participation of renewable energy technologies in energy markets, the EU relies on price mechanisms rather than directly planning specific outcomes for specific technologies. For this approach to work it is essential that distorting subsidies are not allowed to appear, since a subsidy in one country may potentially impact across the whole EU in terms of access to the electricity market.

7.6 Given increased renewable energy pooling is very likely to allow for greater European-wide balancing between technologies such as solar in the south of Europe, hydro electric power in the north and wind in the west - then disproportionate nuclear subsidies are likely to reduce the size of the available market for these technologies to participate in, and increase the difficulty of establishing new renewable generation capacity across the whole EU, not just in the UK. If the precedent is accepted for nuclear specific subsidies in the UK, then other countries may follow the UK's lead - further reducing renewable energy participation across the EU market.

7.7 In this context, we agree with the Commission that UK State Aid for HPC is capable of severely distorting market dynamics, precisely because it shields the beneficiary from risks that other market operators are subject to. Thus, since there exists a competition failure in electricity generation in respect to planned UK State Aid for HPC, it cannot represent a genuine SGEI. Here, UK plans to provide operating State Aid through price support mechanism to guarantee profitability are

not compatible with EU State Aid rules, and the proposed Investment Contract will provide NNBG with a clear selective advantage.

7.8 Along with the Commission, we also doubt that the level of profit used to set the Strike Price corresponds to the rate of return of a typical company for the whole duration of the period of entrustment, taking into account the level of risk.

8. Tail-End Risks

8.1 We concur with the Commission that nuclear is subject to unparalleled and extreme 'tail-end risk' involving low-probability but extreme high-impact risk under conditions of scientific uncertainty and technological complexity. Key to the interpretation of tail-end risk is the conceptual analytical modeling tool, Probabilistic Risk Assessment (PRA).

8.2 PRA modeling calculations are critically important to the regulatory nuclear 'Safety Case' for HPC, as they underpin the concept of 'acceptable risks' and 'tolerable consequences' under 'fault conditions' - whereby the risk of an accident must be acceptable, and the radiological consequences tolerable. However, given the degree of uncertainty and complexity attached to even the most tightly framed and rigorous modeled nuclear risk and liability assessment - attempts to weight the magnitude of accident by the expected probability of occurrence has proven problematic. This has significant implications for the HPC proposal, in that PRA failed to conceive or capture the cascade of unexpected 'beyond design-base' accidents that occurred in Fukushima and all other previous major nuclear accidents.

8.3 Given that the radiological inventory for each EPR at HPC is twice that of the largest nuclear reactor currently operating in the UK, it is unsettling to reflect that the NNBG 'Safety Case'- based on their PRA - claims that for the very worst reasonably foreseeable accident/incident at HPC (including terrorist attack), the maximum rate of release in the form of a containment bypass would not exceed 0.03% of the reactor core inventory per day[9]. In this context it is also unfortunate to note that all UK civil nuclear infrastructures are uniquely implicated in all four 'tier-one threats' identified in the UK National Security Strategy[10].

8.4 Probability of accident informs likelihood of occurrence and hence potential liability. However, costs relating to liability insurance are uncertain, since they are extremely difficult to forecast. Never the less, recent events at Fukushima support the conclusion that reactor accidents are the single largest financial risk facing the nuclear industry, far outweighing the combined effect of market, credit, and operational risks.

8.5 Currently, European nuclear accident liability for any one accident is capped at EUR 169 million. The Paris Convention on Nuclear Third Party Liability and Brussels Convention aims to raise this to ensure that victims of a nuclear incident are

[9] NNBG Company Limited (2011): Radioactive Substances Regulation Environmental Permit Application, UK EPR, Hinkley Point C.
[10] HM Government (2010): *A Strong Britain in an Age of Uncertainty: The National Security Strategy*, Presented to Parliament by the Prime Minister, October 2010, Cm. 7953, London.

compensated for resulting damage[11]. Under the proposals, nuclear operators would be liable for the first €700 million for any accident, with the national government having the option of adding a maximum of a further €500 million towards the company's liabilities. Collectively, other signatory states could contribute a further €300 million, bringing the total available to €1.5 billion for any one major nuclear accident if the Convention is eventually ratified. However, given liability estimates for Fukushima vary between many tens of €billions and many hundreds of €billions, then even this new proposed level of pan-EU cover may not suffice, by a very large margin (many orders of magnitude), to account for liability in case of a major nuclear accident in Europe.

8.6 Actuarial analysis supports this view. Full insurance against nuclear disasters may increase the price of nuclear electricity by up to €2.36 per kilowatt hour (kWh)[12] - a sum that would significantly weaken the economic case for nuclear power compared to other low-carbon sources. Furthermore, to the extent that liability rules provide incentives for prevention, the financial limit on the liability of an operator may lead to under-deterrence - since, as a result of the financial cap on liability, the potential complementary function of liability rules in providing additional deterrence may be lost.

9. Waste

9.1 We share the Commissions concerns about features of nuclear energy, which distinguish it from any other electricity generating technology or from any other technology. In particular, the Commission acknowledges that costs linked to the treatment and management of spent fuel and nuclear waste are difficult to estimate since they take place a long time in the future and there is still little real practical experience.

9.2 The most recent estimates are that, once packaged, the UK has around 1,420 cubic metres of high-level radioactive waste, 364,000 cubic metres of intermediate-level radioactive waste, and 3,470,000 cubic metres of low-level radioactive waste[13]. The time-frame in question when dealing with radioactive waste ranges from 10,000 to 1,000,000 years[14]. Government officials estimate that the cost of managing this waste and decommissioning is currently around £80-100 billion (and rising). A recent report by the House of Commons Committee of Public Accounts and Nuclear Decommissioning Authority points out that DECCs nuclear legacy budget currently costs the UK over £2.5 billion a year (42% of DECC's total budget)[15], with the remaining financial burden discounted for very many years.

9.3 HPC would significantly add to the UK nuclear waste inventory. This is because NNBG propose to deploy 'High Burn-up Fuel' at the two EPR's at HPC -

[11] Paris Convention (2011): Protocols to Amend the Brussels Supplementary Convention on Nuclear Third Party Liability, No. 26.
[12] Versicherungsforen Leipzig GmbH (2011): *Calculating a Risk-Appropriate Insurance Premium to Cover Third-party Liability Risks that Result from Operation of Nuclear Power Plants*, Günther B, Karau T, Kastner E-M, Warmuth W, Leipzig.
[13] UK Nuclear Decommissioning Authority, 2010.
[14] National Research Council (1995): Technical Bases for Yucca Mountain Standards, Washington, D.C. National Academy Press.
[15] REF, 2013

with significantly more enriched uranium used as reactor fuel to increase burn-up rate for longer periods and at higher temperatures, resulting in considerably hotter and more radioactive spent fuel.

9.4 Furthermore, under new proposals, the UK government would carry the full liability for major accidents from decommissioning. Paradoxically, given current UK nuclear accident liability arrangements, DECC explains that because of the nature of nuclear activities, the maximum figure for the potential liability is impossible to accurately quantify[16]. In practice, this new measure is likely to obtain for HPC decommissioning.

9.5 It also should be noted that UK radioactive waste policy is predicated in the disposal of very long-lived nuclear waste via a geological disposal facility (GDF). However, at present, there are no secure estimates for costing a UK GDF, and no GDF has been constructed or operated successfully anywhere in the world. Plans for siting a GDF in Cumbria have met with substantial opposition from the Cumbrian elected local authority.

10. Transparency and Accountability

10.1 EC Guidelines emphasise the need for transparency regarding State Aid measures - however contract negotiations between the UK government and NNBG are simply not sufficiently transparent. Although DECC have provided press-release summaries, key terms of the deal have not been made fully available to the public either in the UK or the EU, and there is insufficient detail to allow for considered expert examination.

10.2 In the context of openness, transparency and necessary accountability to the UK and EU public and policy-making communities, the UK government should provide full details of the terms of the contract, and articulate how it explored alternative options, including other funding devices and mechanisms that may have the potential to achieve similar energy transition goals.

11. Conclusions

11.1 The EC Consultation into whether UK subsidies for new build nuclear contravenes EC State Aid legislation will directly inform the future direction of EU energy policy. Long-term decisions across the entire field of industrial strategy depend on the resulting pictures. Taken across the full range of public and private actors engaged in energy systems, annual commitments worth many billions of pounds rest on the results of this EU policy appraisal. The result of the investigation will therefore be an important precedent and will have consequences for a large number of other Member States.

11.2 The UK government contend that state subsidies for new nuclear development at HPC are aimed at security of supply, diversity of generation, decarbonisation, electricity price stability and affordability. However, along with the Commission, we

[16] FALLON DECC REF, 2014

doubt that the notified measures can be said to realistically address these issue in a timely or cost effective manner.

11.3 The creation of targeted State financial structures such as the Investment Contract and credit guarantee have been specifically designed to develop HPC in the UK at the expense of other low carbon investments. This significant financial over-compensation is incompatible with State Aid legislation and does not fit within the SGEI Framework.

11.4 Given this level of financial support is unavailable to other low carbon technologies, it is certain to significantly distort competition and strongly impact on trade between Member States - precisely because it shields the beneficiary from risks that other market operators are subject to. And since there exists a competition failure in electricity generation in respect to planned UK State Aid for HPC, it cannot represent a genuine SGEI.

11.5 In addition, we agree with the Commissions initial view that even if NNBG were to be seen as entrusted with a SGEI, it remains doubtful whether State Aid for the provision of a SGEI would comply with the SGEI Framework. In fact, it would appear that the UK's main, indeed only, argument to claim the existence of a SGEI is that the Investment Contract will provide incentives for NNBG to build the nuclear plant under a specified time-frame.

11.6 It is difficult to comprehend how HPC may contribute to affordability, price stability and least-cost for the UK energy consumer - when the agreed strike price is overwhelmingly likely to contribute to significantly higher energy prices. However, it does remain true that the deal would prove very profitable to NNBG during the very lengthy 35-year contract period.

11.7 Furthermore, we agree with the Commission that the proposed CfD would provide the utmost certainty of a stable revenue stream under lenient conditions by entirely eliminating market risks from the commercial activity of nuclear electricity generation for the very long 35-year contract length. Rather than arriving at the length of contract through transparent and objective means, it seems clear that the contract has been tailored to the requirements of NNBG. Proof of this is that these contract lengths are not available to other CfDs - particularly those for renewable energy. In this sense the UK government dealings with NNGB seem deeply discriminatory.

11.8 Thus, UK government plans to provide operating State Aid through price support mechanism to guarantee profitability are incompatible with EU State Aid rules, and the proposed Investment Contract will provide NNBG with a clear selective advantage. In addition, UK government claims that State Aid support is necessary in order to address 'market failure' seems deeply misplaced.

11.9 We share the Commissions concerns about other features of nuclear energy, which distinguish it from any other electricity generating technology or from any other technology, in particular the issue of very long-lived radioactive waste. And we concur with the Commission that nuclear is subject to unparalleled and extreme ‘tail-end risk’. Recent events at Fukushima support the conclusion that reactor accidents

are the single largest financial risk facing the nuclear industry, far outweighing the combined effect of market, credit, and operational risks.

11.10 In short, proposed UK government State Aid for HPC is incompatible, does not represent a genuine SGEI, will distort the European energy market, is neither transparent nor proportionate, and unfairly discriminates in favour of nuclear.

11.11 The development of sustainable and affordable low carbon energy remains a growing economic sector with huge potential for job creation. To seek to delimit this diversity through particular State Aid support of nuclear power at the expense of other, potentially more flexible, safe, productive, cost-effective and affordable technologies seems, at the very least, unwise.

We hope that this submission is helpful and we would welcome the opportunity to discuss any issue it raises in greater detail.

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Paul Barwell (Chief Executive Solar Trade Association).

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