OFGEM – Quicker and more efficient distribution connections – AECOM response to consultation request dated 19th February 2015

Scenario 1 Q1: Would a DNO be sufficiently confident about future connections demand and the benefits to DUoS customers to justify this approach? If so, in which circumstances?	A DNO would need to be made aware of future connections not just in the short term but also for the mid to long term. This is not a view that the DNO should make arbitrarily but with input and consultation with key local stakeholders. A business case should be prepared considering these development plans along with social factors, i.e. would this reinforcement assist with faster development of the area and therefore speed up the creation of jobs or social benefitting improvements. In the circumstances where clear local benefits for the general public can be identified, then a case for funding via DUoS can be made.
Scenario 1 Q2: What other barriers are there to DNO's taking this approach? How might these be overcome?	Any anticipatory investment costs should be ring-fenced and supported by a business case such that in the event that development does not occur (no load take up) then the DNO is not penalised via subsequent price control review. The DNO may not want to risk investing ahead of need due to subsequent performance reviews. Greater engagement by local planning authorities and more open engagement from the development community on upcoming plans for mid to long term development project pipeline is essential. Whilst some engagement presently exists, this needs to be more robust with the DNO taking due cognisance of the input received. OFGEM should review and approve the business case proposed by the DNO but do so in a prompt and timely manner. The hurdles placed in front of the DNO should be comprehensive but not prove to be overly bureaucratic in order to achieve approval.
Scenario 2 Q3: What are your views on this type of approach and the RAV Buyback Model? Are there any elements which are essential, not required or should be changed – and why?	The RAV model proposed coupled with the suggested benefit/penalty arrangement appears to be a sound approach to the problem of encouraging investment ahead of need.

	For this scenario to work, a robust stakeholder engagement process needs to be in place. Regular and detailed advice from the local planning authority coupled with regular input from major property developers and other key energy users in the area likely to enhance their power usage requirements (factory's, data centres, etc.) should be sought. OFGEM should provide the DNO's with a standard business case template that is not too onerous on the DNO to complete and OFGEM should instigate a prompt yet robust approval process for review of the business case. The point of this exercise is to aid the efficient construction of distribution assets to service potential development areas. Current processes for "getting connected" are not particularly fast, any effect of implementing scenario 2 should not unduly slow the process further.
Scenario 2 Q4: Please give details of any projects or schemes this type of arrangement could have helped progress which would have not otherwise gone ahead?	Currently there are several major projects planned towards the eastern end of London's Docklands. Current spare electrical capacity in the area is minimal. The DNO has a plan in the current business plan for some reinforcement to be carried out in the area. However, at least two of the planned schemes nearby are forecasting electrical loads well in excess of 30MVA each, far in excess of any planned reinforcement measures. Until such times as these development projects make a formal application, the DNO is not obligated to consider them. Once the DNO receives a connection application from one of these major developments, the DNO, under scenario 2, could plan for the greater and more efficient reinforcement to the area. The question posed enquires about projects that would not otherwise have gone ahead. In the vast majority of cases, once the property developer has

	made the investment decision to buy the land, it is unlikely that he will not develop on the basis solely of the electrical connection cost. However, it will impact on the overall commercial viability of the project if connections are disproportionately expensive and provided via very long delivery periods, as reinforcement measures usually have a very protracted gestation period. It should be noted of course that the reputational damage that this could have on an investment area could discourage subsequent investment in an area by further developers.
Scenario 2 Q5: What would justify requiring subsequent connection customers to only be able to connect to the new, enhanced part of the network?	It would seem logical that the purpose of a DNO reinforcing an area is because little or no spare capacity currently exists, given that scenario it would seem like a given that any new developments local to the reinforced area would need to connect to it. Whilst freedom of choice for the customer should be maintained customers should be encouraged to connect to the new infrastructure provided by Scenario 2 as any other option should clearly be demonstrated as being either very expensive or prohibitively protracted to deliver in comparison. This could be via a clear and open pricing arrangement where the customer is provided transparency of cost coupled with a delivery programme that should demonstrate that connecting to the new assets is demonstrably quicker and easier to achieve than connecting to pre-existing assets. If this is not the case then questions need to be asked of the robustness of the business case put forward for the reinforcement works. In instances where connection requests subsequent to reinforcement are made for low voltage or small load volumes, and in the instance where some LV or minimal pre-existing capacity exists then it would seem reasonable to allow that capacity to be utilised in isolation from the new reinforced assets.
Scenario 2 Q6: What would justify requiring subsequent connection customers to reimburse DUoS customers for the risk they bear in funding this work? What might be the impact of this? How should the premium be calculated?	Whilst the DNO should be rewarded for the investment made in investing in infrastructure, the level of reward needs to be capped as subsequent customers will find themselves in a position where they have little or no

	choice but to connect to the new infrastructure and they should not find themselves penalised via this monopolistic position. The DNO's are commercial organisations with responsibilities to shareholders and as such could not reasonably be asked to invest in assets and risk either a penalty via subsequent price control review or via loss of benefit via DUoS therefore it would seem reasonable for the DNO to obtain a limited return on any anticipatory investment. Use of the second comer rule, supported by far greater transparency of load take up, capital cost expenditure and cost apportionment should be utilised to support charges made to customers connecting.
Scenario 2 Q7: Over what time period would it be reasonable to expect DUoS customers to be reimbursed for the initial funding?	Experience suggests that the construction build out period for major multi phased developments span a large number of years. The five year period currently associated with the second comer rule would be insufficient to properly recover costs from second comers for major developments. The very least one would expect to contemplate for an investment scenario such as this would be ten years.
Scenario 2 Q8: When might it be appropriate for a DNO to have an upfront revenue adjustment to cover this type of scheme? Or should existing mechanisms be used?	Fixed time periods for submission of business plans for investment requests should not be implemented. The DNO needs to be able to respond to market forces that in turn are driven by numerous influencing factors. The DNO should be able to submit applications at any time and the regulator should be able to respond accordingly.
Scenario 2 Q9: Do you consider that this approach would have any implications on competition in connections?	The reinforcement activities and funding via DUoS would appear to be a DNO delivered activity. Extension to the network could still remain a contestable activity that ICP's could bid to install. However Scenario 2 would limit the ability of iDNO's to compete in the affected areas for the duration of the capacity availability. Whilst being fully supportive of the introduction of competition in connections, the needs of the wider business and social economic environment must not be ignored.

Scenario 3 Q10: What are your views on the DevCo model and process set out in Appendix 2? Are there any elements which are essential, not required or should be changed – and why?	The DevCo model set out in Appendix 2 looks like a potential solution to investment ahead of need but would potentially work best in areas where very long term regeneration is being considered. It would require an investment partner and may suit the needs of a local authority or regional development agency. Whilst the model works for adoption by the incumbent DNO, there seems no reason why a commercial arrangement could not be found with an iDNO thus overcoming many of the issues of restricting competition in connections, indeed the network itself could be built by an ICP thus expanding competition still further.
Scenario 3 Q11: Please give details of any projects or schemes this type of arrangement could have helped progress which would not have otherwise gone ahead?	The question posed enquires about projects that would not otherwise have gone ahead. In the vast majority of cases, once the property developer has made the investment decision to buy the land, it is unlikely that he will not develop on the basis solely of the electrical connection cost.
Scenario 3 Q12: What would justify requiring subsequent connection customers to only be able to connect to the new, enhanced part of the network?	It would seem logical that the purpose of a DevCo reinforcing an area is because little or no spare capacity currently exists, given that scenario it would seem like a given that any new developments local to the reinforced area would need to connect to it. Whilst freedom of choice for the customer should be maintained customers should be encouraged to connect to the new infrastructure provided by Scenario 3 as any other option should clearly be demonstrated as being either very expensive or prohibitively protracted to deliver in comparison. This could be via a clear and open pricing arrangement where the customer is provided transparency of cost coupled with a delivery programme that should demonstrate that connecting to the new assets is demonstrably quicker and easier to achieve than connecting to pre-existing assets. In instances where connection requests subsequent to reinforcement are

	made for low voltage or small load volumes, and in the instance where some LV or minimal pre-existing capacity exists then it would seem reasonable to allow that capacity to be utilised in isolation from the new reinforced assets.
Scenario 3 Q13: What would justify a DNO charging a premium to second-comers to reimburse the customer? What might be the impact of this? How should the premium be calculated?	Whilst the DevCo should be rewarded for the investment made in investing in infrastructure, the level of reward needs to be set at a reasonable level as subsequent customers will find themselves in a position where they have little or no choice but to connect to the new infrastructure and they should not find themselves paying unduly high connection fees in order to reimburse the first comer (DevCo). Use of the second comer rule, supported by far greater transparency of load take up, capital cost expenditure and cost apportionment should be utilised to support charges made to customers connecting.
Scenario 3 Q14: Over what time period would it be reasonable to expect the customer to be reimbursed initial funding?	Experience suggests that the construction build out period for major multi phased developments span a large number of years. The five year period currently associated with the second comer rule would be insufficient to properly recover costs from second comers for major developments. The very least one would expect to contemplate for an investment scenario such as this would be ten years.
Scenario 3 Q15: What would justify the initial investor being permitted to restrict the type of schemes that would connect using the infrastructure it has paid for? For which type of schemes might this be appropriate?	There would need to be a clear business reason for restricting the type of scheme that could connect to a reinforced network.
Scenario 3 Q16: Do you have any comments on the recommendations proposed in Appendix 3 to enhance consortium arrangements? What would justify these recommendations? Are there any other changes which would support consortium arrangements?	Consortium arrangements between multiple developers has been tried before via a Section 22 agreement. Experience shows that they are possible but there are many hurdles to cross. They take a protracted period to achieve heads of terms and even then there remains a risk that one of the parties to the agreement could drop out delaying the subsequent agreement still further.

	The parties to the agreement will need to be in reasonably close proximity to each other and have development delivery programmes within similar timescales in order for the most cost effective solution to be achieved. The potential for consortium agreements to be become common place is limited.
Scenario 4 Q17: What role, if any, could change to engineering standards play in helping to accelerate the connections process without damaging reliability levels? In what circumstances would this be appropriate?	Engineering Recommendation P2/6 provides a robust level of electrical distribution design guidelines that provide a network that suit commercial customers such that a good level of diversity of supply is provided such that in the event of most minor faults power can be restored in reasonable time scales. Any changes that are introduced to accelerate the connections process should not be to the detriment of network resilience.
Scenario 4 Q18: Which particular standards might most benefit the connections process if changed?	
Scenario 4 Q19: What benefits might the introduction of assessment and design fees bring?	Assessment and design fees should be introduced above a specified capacity limit such that one off small developers and individual domestic customers are not charged for connection offers. However larger commercial customers would accept to pay an appropriate fee in return for a connection offer. However any fee should come with an improved level of service from the DNO. The design and connection offer should be provided in an improved and rigidly enforced timescale, the quotation should be provided with an improved degree of transparency and the offer should be structured in such a way that the customer can choose to accept either the full offer or just the non-contestable element without the need for a re-quote (already available from some DNO's). The A&D charges should be truly cost reflective of the work necessary in producing the deliverable by the DNO.

Scenario 4 Q20: Could more flexibility in the way assumed available capacity is calculated help accelerate the connections process? Are they any other improvements to be made in how DNO's manage interactivity between schemes looking to connect to the same part of the network?	Insufficient clarity exists currently to the outside observer / customer on how the DNO manages spare capacity and where spare capacity currently exists within the network. If the DNO's provided clear and easy to decipher records of their networks then some of the burden placed upon the DNO's by way of connection enquiries may be reduced. Third parties would be able to make early judgements at feasibility stages of a project as to the potential connection point and therefore make their own assessment of capital cost to connect. For appraisal purposes this may be sufficient. This could remove some of the work load currently flowing through DNO's connection gateway.
Scenario 4 Q21: When might it be reasonable to withdraw capacity it has previously offered to customers?	There would need to be a robust reason to withdraw capacity previously offered to, and purchased by, customers. In the scenario where a customer has purchased a connection, the connection has been provided but no take up of load has taken place for twelve months from connection and no subsequent reservation of capacity charge is being paid then it would not be unreasonable for the DNO to approach the customer to discuss withdrawal of capacity.
Scenario 4 Q22: Are there any other changes which could be made to reduce the need for reinforcement?	If the DNO's were required to maintain a clear headroom of between, say, 5 to 10% spare capacity at its primary substations at all times then it may be possible to smooth out the peaks and troughs of reinforcement measures. The headroom would allow most developments to be able to connect within a reasonable time scale and may provide the DNO some flexibility in running its networks. There would need to be a change to the current price control methodology requiring the DNO to run their networks as they do currently and not be penalised financially at review.
Scenario 4 Q23: What would justify a DNO offering more flexibility terms for connection charges? What might be the impact of this?	DNO's currently remain cash positive on all connections, this is achieved by upfront payments. On larger projects some DNO's offer staged payments, these are offered in such a way that the DNO will still remain cash positive during the installation process of a project. This mechanism for staged

	payments could be introduced for certain smaller connections where it can be demonstrated that but for such an arrangement would otherwise stall the project.
Scenario 4 Q24: What type of schemes would most benefit from this arrangement?	This arrangement could be used to benefit community or charitably funded projects.
Scenario 4 Q25: What could be done to protect other customers from picking up any costs which cannot be recovered from the original connection customer?	
Scenario 4 Q26: Are there any other measures that would reduce the cost impact of connecting to the network?	Commercial contracts with connection providers other than DNO's are often carried out via standard forms of contract that require the installation works to be carried out in advance of payment, with valuation and payment for the works being carried out monthly in arrears. The introduction of this type of arrangement may prove beneficial in terms of cash flow to some community or charitably funded projects. However it may be necessary to ensure final payment is made in advance of energisation in order to ensure that the DNO complies with its requirements to protect other customers from the effect of bad debts.
Summary and next steps Q27: Which of the arrangements described above would deliver the greatest benefit to the connections process without placing additional risk or cost on the generality of customers, and why?	Given the various scenarios described, Scenario 2 appears to offer the most realistic chance of being supported by the DNO's and of being implemented in timescales that would work for a large section of the development community. Clearly there would need to be a change in mind set and approach by many stake holders in order to make this scenario work effectively. Scenario 3 also provides a solution that addresses the needs of providing investment ahead of need however there would need to be a catalyst behind this endeavour to make it work, maybe a coming together of several stakeholders with a common aim. This scenario may take the longest of the scenarios to formulate but does provide a solution that could work without

	hindrance to competition in connections.
Summary and next steps Q28: Should wider benefits beyond energy system benefits (such as those provided by NTBMs) be taken account of in DNO's or third parties' considerations of any of the measures or mechanisms described in this paper?	Currently the aspirations of the NTBM market is yet to be realised efficiently and effectively, in order to progress the matter in hand in a timely manner the issue of benefits from NTBM's should be ring-fenced and dealt with via a separate review.
Summary and next steps Q29: Do you have any other suggestions for delivering quicker and more efficient connections?	

Chris Trew

Director, Cost Management

AECOM

MidCity Place, 71 High Holborn, London, WC1V 6QS

T +44 (0)20 7061 7000

www.aecom.com