

Response to Ofgem consultation 134/11 “Distribution use of system charging: way forward on higher voltage generation charging”

by Franck Latrémolière on Monday 5 December 2011

1. In this response I argue that generators embedded in DNO distribution systems should, in general, not be liable for distribution use of system charges, other than sole use asset charges (and demand charges for any station demand). I am arguing for no charges as the rule, not as an exceptional exemption along the lines of your other consultation document.
2. Table 1 gives a short response to each of your specific questions, and references to the most relevant points of my detailed response.
3. My overriding comment is that your consultation has failed to address the relevant issues: see my detailed response and in particular paragraphs 4 and 21–23.

Table 1 Answers to your specific consultation questions

| Your question | Short response and reference to relevant paragraphs of the detailed response |
|---|---|
| Question 2.1: Option 1 – Do you think that charges more or less appropriately reflect costs imposed by DG, following the removal of (some or all) pre-2005 DG? | No. See detailed response, in particular paragraphs 4 and 24–33. |
| Question 2.2: Option 2 – Do you think it is appropriate to include a generation-led reinforcement (locational) charge? What are the advantages and disadvantages of removing such a charge? | No. See detailed response, in particular paragraphs 29–33. |
| Question 2.3: Option 2 – This option may result in increased charges for generators currently in demand-dominated areas of the network, compared to those predicted under the EDCM. However, this could be matched by a decrease in potential volatility. What are your views on this potential trade off? | I do not see a trade-off. None of these charges or their associated volatility are needed. See detailed response, in particular paragraphs 4 and 21–23. |
| Question 2.4: Option 3 – Do you think that the EDCM should continue to calculate charges as if all generators continue to be charged? What is the reasoning behind your response? | No. See detailed response on charges, paragraphs 4–37. |

| Your question | Short response and reference to relevant paragraphs of the detailed response |
|---|--|
| <p>Question 2.5: Option 4 – Is it appropriate for EDCM generators to recover their share (based on their capacity relative to CDCM) of the DG incentive revenue (ie 80 per cent of generation-led reinforcement costs plus £1/kW incentive revenue)? If not, how should this incentive revenue be recovered?</p> | <p>Not appropriate to impose these non-cost charges, at least on pre-2005 generators. You would need a rational justification to get this money from anyone else — I express no view as to whether a justification might exist.</p> |
| <p>Question 2.6: Option 5 – Do you think it is better to revisit the methodology more fundamentally?</p> <p>Question 2.7: Option 5 – What cost signals do you think generators have the ability to respond to?</p> | <p>Your consultation on option 5 looks like a sham, because of your paragraph 2.47. See paragraphs 1 and 21–23 for my suggestions.</p> |
| <p>Question 2.8: Do you have any other suggested modifications to the proposed methodology?</p> | <p>Yes. See paragraphs 1 and 21–23.</p> |
| <p>Question 2.9: Which of the options (if any, or including a combination) do you think would enable the EDCM for DG charging to fulfil the Relevant Objectives set out in the licence after the removal of exempt generators? Why?</p> | <p>None. See detailed response on charges, paragraphs 4–37.</p> |
| <p>Question 2.10: What is the most appropriate way of redistributing the unrecovered revenue from exempted generators to other users of the network?</p> | <p>Not appropriate to impose non-cost charges, at least on pre-2005 generators. You would need a rational justification to get this money from anyone else — I express no view as to whether a justification might exist.</p> |
| <p>Question 3.1: Do you think EDCM charges for non-exempted generators should apply from 1 April 2013? Why?</p> | <p>No. Not from 2013, not ever. See detailed response.</p> |
| <p>Question 3.2: Do you agree that the boundary change for generators should be deferred to coincide with the implementation of EDCM generator charging? Why?</p> | <p>Yes. But I do not think that the boundary change for demand was justified, and I do not think that there should be an implementation of EDCM generator charging. Removing distribution use of system charges for generation (except for sole use assets and perhaps by exception in generation-dominated networks) would mitigate boundary-related distortions since this is already the position under the CDCM.</p> |
| <p>Question 3.3: Do you have any comments on the suggested timetable for the reconsideration and subsequent approval of EDCM charges for DG?</p> | <p>Re-consultation on a better set of options is needed. See paragraphs 21–23.</p> |

Why generators should not pay distribution use of system charges other than sole use asset charges

4. I advance four reasons why generators should not be liable for distribution use of system charges, other than sole use asset charges:
 - (a) Other than in respect of sole use asset charges, many embedded generators do not receive a distribution service for which it would be legitimate for a monopoly distribution company or its regulator to impose use of system charges on top of connection and sole use asset charges.
 - (b) Your consultation documents do not present a valid argument for imposing on generators any distribution use of system charges other than sole use asset charges.
 - (c) The distribution use of system charges for generators envisaged in your consultation would be unjustified and unfair.
 - (d) Imposing distribution use of system charges, other than sole use asset charges, on generators is not necessary or even expedient to achieve your stated objectives.

Many embedded generators do not receive a distribution service that would justify charges other than for connection and sole use assets

5. The electricity supply industry exists to meet its customers' demand for electricity. Licensed distribution networks exist to transport electricity to these customers.
6. Your consultation does not give much information about what the generators to which it relates might look like. This, by itself, casts some doubt about the validity of your policy development and consultation process. As I do not think that there is much information available elsewhere I have to resort, to some extent, to anecdote or conjecture.
7. What I do know is that some of the generators on DNO distribution networks are there to feed electricity into the system that displace feeds from higher-level substations or from the transmission system. Some such generators were explicitly built as backup supplies, i.e. as an alternative to building more network. Some were presumably built where they are simply because it was a suitable location at which power could be introduced into the total system with little need for network investment.
8. The system of generation credits under the CDCM recognises this business model for distributed generation: embedded generators provide electricity closer to the point of consumption than the transmission system, and thus they might reduce the need for network investment.
9. All generators are different, and there is presumably a wide variety of network arrangements. I can conceive of a network that would operate at similar voltages as distribution networks, but that would be designed to collect electricity from a number of generators and transport to a transmission system and/or distribution systems

serving customers. I do not think that the word “distribution” (either in its ordinary usage or in the meaning that it is given under the Electricity Act 1989) should be applied to such a network. I would call it a collection network.

10. If a collection network exists, sensible technical and commercial arrangements for it might include a collection security standard, and perhaps some use of system charges. But it would not be sensible to try to force on a collection network the arrangements that were invented for distribution networks serving customers.
11. Perhaps your work on generation dominated areas in the context of the CDCM was an attempt at finding out whether any DNOs are running collection networks within their networks. If so, you might not have been completely successful in communicating this. In any event, the information that you already have about the number of potentially generation dominated areas suggests that such issues do not affect many of the generators to which use of system charges would apply under your proposals.
12. It would be wrong to apply use of system charges to the generality of embedded generators just because it is possible to imagine particular circumstances in which charges might be legitimate.
13. Furthermore, seeking symmetry between charges for use of a collection network, and distribution use of system charges for customers (which are presumably based on the costs necessary to meet security of supply standards such as P2/6), would be unjustified. It would look like lazy thinking: it would be seeking to rely on a false symmetry argument to avoid the more difficult, but the only relevant, issue of how any collection networks might be regulated and/or separated from distribution networks.

You present no valid argument for charging generators for use of the distribution system

14. I cannot find a good reason in your consultation document for wanting to impose use of system charges on generators.
15. You seem to have inherited this idea from previous generations of Ofgem staff, and you do not appear to have questioned it as much as you should have.
16. When use of system charges were introduced for some generators in 2005, they were set to recover a set amount of DNO revenues which was said to be linked to investment in networks to permit the development of embedded generation. The story in 2005 was that connection charges for generators were being reduced, and some of the money was being made up through the new distribution use of system charges for generation.
17. Whilst this was probably a bad policy, not least because it might have reduced the extent to which generators try to minimise the network investment needed to connect them insofar as the costs of that investment would fall outside the scope of connection charges, at least the policy at the time had a degree of internal logic.

18. With the introduction of the CDCM, DNOs started to pay use of system credits to generators in respect of some notional avoided network investment. This also made sense.
19. At the same time, CDCM-qualifying post-2005 generators ceased to pay the distribution use of system charges for generation that had been introduced in 2005. The removal of post-2005 distribution use of system charges for generation was not by itself an inevitable consequence of the introduction of generation credits. Credits (for everyone) and charges (for post-2005 generators) could perhaps have coexisted, although there could have been problems in justifying the post-2005 charges (I am not aware of any good-quality cost-based evidence for these charges). In the end, the policy that had been introduced in 2005 was effectively abandoned in respect of CDCM-qualifying generators.
20. In developing options for non-CDCM generators, you have now lost all remnants of internal logic. None of your options seems compatible with any rationale for the charges that would be imposed on generators. Your proposed charges are not charges for distribution services, because generators do not buy distribution services. Your proposed charges are not charges in lieu of reduced connection charges, because you have broken that link by bringing some pre-2005 generators into the net.
21. You have committed what might be the worst sin in a policy consultation: a biased selection of options. You have selected four specific options (none of which are any good), and one vague catch-all option 5 which you seem to have pre-rejected at paragraph 2.47. You have failed to raise the obvious option of following the example of the CDCM and abandoning distribution use of system charges for generation altogether except insofar as they are tied to sole use assets.
22. You should now re-consult with a more appropriate set of options.
23. One option should be to eliminate all distribution use of system charges for generation other than sole use asset charges. Perhaps you could use your thinking on generation dominated areas to develop some other options that might provide for charges in the event that there are substantial non-sole-use parts of the network where network investment is for the benefit of generation and cannot be paid for through connection charges.

The distribution use of system charges for generators envisaged in your consultation would be unjustified and unfair

24. There are two obvious areas of unfairness in the methods outlined in your consultation, even if they were restricted to the cases (like collection networks) in which distribution use of system charges for generation might be legitimate. These are just two simple points which are immediately apparent; a more exhaustive analysis might find more problems.
25. The first obvious problem, which affects your options 1–4, is the lack of a justification for the £1/kW/year (plus several years of RPI inflation) “O&M” charge. Your document provides no basis to believe that this is a reasonable amount to charge for operations and maintenance of any generation-related network assets.

26. Thinking of a medium-voltage circuit breaker and associated protection equipment for a 10 MW generator, a maintenance charge in excess of £10,000 a year looks rather high.
27. I believe that the £1/kW/year figure originated in the run up to the 2005–2010 price control decision. At that time, as outlined above, the idea was to cut connection charges (including by removing a “capitalised O&M” element from them) and to replace the money with the distributed generation incentive element. In that context, a degree of rough and ready picking numbers out of thin air might be understandable, although I do not think that it was right. At least it was possible to argue that generators who did not like it could always rush to connect before 1 April 2005 or abandon their projects altogether.
28. But now that you want monopoly distribution networks to impose charges on pre-2005 generators who have no real choice, I think that you need a higher standard of justification. I would hope that a failure to base the prices on a factual analysis of cost introduces a fatal flaw in your plan to impose these charges.
29. The second obvious problem, which affects your options 1, 3 and 4, arises from the use of the FCP or LRIC charge 2.
30. Charge 2 is unfair because it imposes on today’s generators some costs which will only need to be incurred by the DNO to accommodate some future hypothetical generator.
31. Charge 2 is not cost-reflective for the simple reason that it relates to costs that are not needed to allow today’s generator to do whatever it wants to do, either today or in the future. If the hypothetical other generators materialise, and if the network investment is made, then it might well be appropriate to share the costs (and/or reasonable return on investment, and/or a provision towards future maintenance or replacement costs) between the beneficiary generators. But not now.
32. It is wrong to impose a charge on a generator today on the basis of a cost that might, or might not, be incurred in the future to allow a competing generator to inject electricity into the network.
33. Using charge 2 to give incentives to customers is also ineffective, since in most cases a high charge 2 will exist because a network investment is made, and will drop dramatically after the investment is made; thus the investment costs would not in fact be borne by the generator who caused the investment.
34. A similar issue probably applies to the use of charge 1 to set EDCM demand charges; but the implications of that point are out of the scope of this response.

Charging generators for use of the distribution system does not help your stated objectives

35. As your document explains at paragraph 2.27, connection charges, generation credits and sole use asset charges can give “locational signals”. Most obviously, connection charges maintain the seemingly desirable link between what the generator has to pay

and any investment that the network operator has to undertake to accept the electricity safely.

36. These signals seem much better suited to meet reasonable policy objectives about investment in generation than any distribution use of system charges for generation.
37. If you think that the current connection charging policy does not meet your locational objectives, then you should address that issue first. Perhaps removing capitalised operation and maintenance charges was a mistake. Only if and when you find an insurmountable and serious problem with locational connection and sole use asset charges should you consider coming back to the possible option of imposing other charges such as distribution use of system charges for generation.

Other remarks

38. In addition to my main argument above, I have a few remarks about your consultation process and your consultation document.

You have not mentioned arrangements in other countries

39. I do not see anything in your consultation document about the arrangements applied in other countries (or in Northern Ireland).
40. Given how long Ofgem has appeared to struggle to find a workable set of commercial arrangements for distributed generation, I would expect more attention to be given to the way in which these issues have been addressed elsewhere.
41. Perhaps some other jurisdictions have decided that the right answer was not to apply charges other than for connection and/or sole use assets, and are finding such an arrangement entirely satisfactory.

You have not mentioned of possible effects on competition or cross-border trade

42. Many of companies operating in electricity generation and supply in Great Britain are foreign, and decisions about investment in the sector sometimes appear to be made on a European or global scale, rather than with a particular focus on Great Britain.
43. I wonder whether there is a possibility that ill-considered charges such as the ones that you propose could act as a detrimental and/or illegal barrier to cross-border trade. I do not see anything in your consultation document about this, or about other possible effects on competition or trade of the charges that you seem to want the monopoly distribution companies to impose. In fact, the word “competition” does not appear at all in your document.
44. Here is a possible example of what you might think about. A regulatory system that causes monopoly distribution companies to impose unjustified charges on distributed generation within Great Britain might amount to giving an unfair advantage to generation technologies that are not usually embedded in distribution systems. Could this be in breach of EU State aid rules?

I am not confident about the reliability of the information in your document

45. At paragraph 3.9 you say: “We understand that all generation tariffs under the CDCM are currently net credits”.
46. I think that you should base your work on facts, not on vague “understandings” with no disclosed source.
47. In this case, the published tariffs show that most CDCM HV generation tariffs include a fixed charge (and some reactive power charges) alongside the unit rate credits.
48. Thus, you seem to be asserting that you know that none of the generators on these tariffs will have zero exported units over a year (so that they incur a net charge equal to the fixed charge). This seems implausible, and it must cast some doubt on the reliability of the information elsewhere in your document.