

Attachment 2 - Definition of Demand Connection/Generation Connection

DCP 406 'Access SCR: Changes to CCCM'

Discussion paper on defining demand and generation

Relevant extracts (emphasis added) from Ofgem's final decision¹

1. Paragraph 3.37: "... The policy intent is that **sites whose primary purpose for a connection** to the network is to consume other than for the purposes of generation or export onto the electricity network should be charged under a shallow boundary. Sites that do not meet these criteria, including generation, should be charged under a shallow-ish boundary"
2. Paragraph 3.39: "We have therefore decided to direct the DNOs to implement the different connection charging depths for demand and generation in **alignment with the definitions of a Final Demand Site and a Non-Final Demand Site as developed as part of the TCR**. These definitions are set out in Schedule 32 of the DCUSA"
3. Paragraph 3.40: "**Where electricity is consumed on a site for any reason other than for the purposes of generation or export, the connection will be deemed a Final Demand Site**. These sites will be charged under the demand connection boundary and will not be required to contribute towards reinforcement costs. **This definition also captures mixed use sites where generation and demand are co-located**. Any connections deemed to be a Final Demand Site will be subject to the demand high-cost cap ..."
4. Paragraph 3.41: "**A Non-Final Demand Site is, in summary, a connection to the distribution system which only imports electricity for the purpose of exporting electricity**. These customers are **required to submit a signed statement to the distributor to avoid paying residual use of system charges on any metered demand**. For the purposes of connection charging, any connections for sites that do not meet the definition of a Final Demand Site (ie a Non-Final Demand Site) would be (i) captured by the generation connection boundary, and therefore be subject to reinforcement costs at the same voltage of connection, and (ii) subject to the generation high-cost cap ..."
5. Paragraph 3.42: "We think that alignment with the TCR definitions is a logical and consistent way to implement our connection charging boundary decision. These definitions have been developed over a substantial period of time in a robust, open, and deliberative process. **We do not consider it a good use of industry's time to start on a new set of definitions, when a suitable set has just been developed**. However, we recognise that these definitions were not developed for the explicit purpose of connection charging. We are therefore also directing the DNOs to develop any additional criteria to allow for clear determination of a site's use case at the time of connection application."
6. Paragraph 3.43: "We confirm our position, set out in the January Consultation on updates to our minded-to positions, **that storage will be treated consistently with generation for connection charging purposes**. This decision will require storage connections to contribute to reinforcement costs at the voltage of connection in accordance with the 'shallow-ish' connection boundary for generation, **regardless of whether that reinforcement is import or export driven**."

¹ <https://www.ofgem.gov.uk/sites/default/files/2022-05/Access%20SCR%20-%20Final%20Decision.pdf>

7. Paragraph 3.47: **“A fully shallow connection charging boundary for storage would not be consistent with our intention to retain a locational reinforcement cost signal in connection charges for certain types of users.** We continue to consider that storage has more locational flexibility than most demand connections.”
8. Paragraph 3.48: **“It is important to note that storage that is co-located with demand may not be required to contribute to reinforcement costs up to the demand high-cost cap, should it be considered a Final Demand Site per DCUSA Schedule 32 definitions.** This aligns with the current treatment of other mixed sites.”

Interpretation

9. The decision is generally consistent in that the use of the defined terms Final Demand Site and Non-Final Demand Site² – developed to implement Ofgem’s Targeted Charging Review (TCR) Significant Code Review (SCR) – should determine whether a connection is subject to either of the following respective boundaries:
 - (i) ‘shallow’ i.e. demand, where the customer pays no reinforcement, subject to the demand high cost cap (HCC); or
 - (ii) ‘shallow-ish’ i.e. generation, where the customer pays reinforcement at the voltage of connection, subject to the generation HCC.
10. A Final Demand Site is essentially where any electricity is consumed other than for the purposes of generating or storing electricity, other than e.g. ancillary load such as heating/lighting. A Final Demand Site is ultimately defined as anything which is not a Non-Final Demand Site.
11. A Non-Final Demand Site is essentially a site (as identified by a single bilateral connection agreement) which consumes electricity only for the purposes of generating and exporting or storing electricity, which must have both a registered import and export Meter Point Administration Number (MPAN).
12. It is arguably clear enough in the final decision that, where the site has been classified as a Final Demand Site, connections to that site should be subject to a shallow boundary. This includes where demand and generation are co-located i.e. a Final Demand Site connecting any generation would not pay associated reinforcement (subject to the demand HCC). However, if a new site was seeking to connect the same generation – perhaps even adjacent to the Final Demand Site – and if that connection had an import connection only for the purposes of measuring usage directly for that generation, then that connection would be subject to a shallow-ish boundary. The same applies vice versa to an existing Non-Final Demand Site.
13. Indeed, the policy intent set out in paragraph 3.37 of the final decision refers to “a site whose primary purpose for a connection”, which arguably means that, the Final Demand Site connecting generation should not pay reinforcement i.e. is subject to a shallow boundary.
14. It is clear from the policy intent that storage should be treated as generation. This is consistent with e.g. the TCR and definition of Non-Final Demand Site. Also consistent with the TCR is that storage co-located on a site which consumes electricity other than for the purposes of generating then exporting or storing that electricity, would be a Final Demand Site. This is supported by paragraph 3.48 of the final decision.

² As defined in DCUSA Schedule 32 ‘Residual Charging Bands’ (‘Schedule 32’).

15. It is difficult to see how all relevant aspects of Ofgem's final decision can be delivered, as there is an inherent conflict between the need to consider the 'primary purpose' of a 'site' whilst using the TCR definitions of Final Demand Site and Non-Final Demand Site. A Final Demand Site could be (e.g.) a site whose primary purpose is to generate electricity but where it has some Final Demand (as defined in Schedule 32) meaning that it should be a Final Demand Site. This is a fundamental conflict that is not likely resolvable through 'additional criteria' for the purposes of connection charging, and therefore supports a need to present at least two different options for defining Demand Connection and Generation Connection for an Authority decision.

Issue 1 – opportunities to avoid reinforcement ('fairness')

16. Setting aside whether the policy intent is correct and/or fair, paragraph 10 of Schedule 32 states that unless the distributor "has been provided with valid certification" that a site is a "Non-Final Demand Site", then the outcome is that site "is a Final Demand Site". That is to say if (e.g.) a windfarm does not provide certification attesting to the fact it meets the definition of a Non-Final Demand Site, it is treated as a Final Demand Site regardless. Being a Final Demand Site would mean that windfarm would face higher Distribution Use of System (DUoS) charges but would mean that site could connect generation without paying reinforcement.
17. This may create gaming opportunities where e.g. a developer would not be incentivised to provide said Non-Final Demand Site certification, to avoid paying reinforcement, only for the connection to be adopted by e.g. the windfarm operator who would pay higher DUoS charges as a result.

Working group analysis

18. To quantify the risk that a generator may seek to be classed as a Demand Connection for the purposes of connection charging i.e. to avoid reinforcement costs, the working group considered the costs that a generator may therefore face once connected and which it would otherwise not i.e. costs which the generator can avoid. For distribution connected sites, such costs include:
- (i) DUoS residual charges – levied on a p/day basis relative to import consumption/capacity unless Non-Final Demand Site certification is provided to the relevant distributor;
 - (ii) Transmission Network Use of System (TNUoS) residual charges – levied on a p/day basis relative to import consumption/capacity unless Non-Final Demand Site certification is provided to the relevant distributor;
 - (iii) Balancing Services Use of System (BSUoS) charges – levied on a £/MWh basis relative to import or export usage unless Non-Final Demand Site certification is provided to the relevant distributor; and
 - (iv) policy costs such as Contracts for Difference (CfD) and the Capacity Market, converted to a £/MWh basis where necessary.
19. For annual fixed charges i.e. the residual charges, the working group used the latest published DUoS charges for the 2023/24 regulatory year and identified the average, minimum and maximum annual costs across each DNO given they can vary materially. TNUoS costs for the 2023/24 regulatory were based on April 2022 forecasts published by the Electricity System Operator (ESO) and were added to each range of DUoS equivalent costs per 'charging band' for distribution connected sites, to derive a total annual fixed cost per customer.

20. For volumetric charges: BUoS, the working group used charges for the 2023/24 regulatory year based on July 2022 forecasts published by the ESO, and for policy costs the working group used the latest publicly available information; taking an average quarterly CfD rate for the 2023/24 regulatory year; and Capacity Market forecasts for the 2023/24 regulatory year from the Office for Budget Responsibility (OBR).
21. The working group considered four scenarios that represent typical import capacities associated with large generation connections (eg 30MW+), namely where the import connection is low voltage (LV) with a maximum import capacity (MIC) of 100kVa and 500kVA, and a high voltage (HV) import connection with a MIC of 500kVA and 1,000kVA.
22. For the volumetric charges (i.e. BSUoS and policy costs), the working group considered a range of load factors to quantify potential annual usage. The working group considered:
- (i) In-house technical expertise and judgement;
 - (ii) Average LV and HV load factors derived based on 2023/24 published DUoS charges for Non-Final Demand Sites – which supported an average range across all DNOs between 3%-8% and 5% on average for both LV and HV combined; and
 - (iii) Site specific data for the 2021/22 regulatory year for Northern Powergrid Non-Final Demand Sites (c.160 sites) – which demonstrated that c.75% of all sites had a load factor <5%, and this increased to c.90% for <10% (albeit the working group recognised that some data showed a load factor of c.35%, with the average across all sites being c.4%).
23. The working group agreed to assess volumetric charges using a range of load factors from: 2% to represent typical minimum usage; 5% to represent average usage; and 10% to represent typical maximum usage.
24. To assess the commercial decision of a generator, when deciding whether it is economically beneficial to pay reinforcement and avoid some enduring costs, the working group considered a notional generator economic life of 20 years, and for simplicity assumed static annual residual charges and usage. A net present value (NPV) was derived based on an assumption of a 5% return on investment.
25. The maximum use of system fixed charges that a generator may need to pay, which could otherwise be avoided by certifying as a Non-Final Demand Site, ranged from an NPV of c.£71k to c.£633k:

Annual charge	100kVA connected at LV	500kVA connected at LV	500kVA connected at HV	1,000kVA connected at HV
Min	£2,023	£7,465	£18,087	£18,087
Ave	£3,606	£13,057	£31,527	£31,527
Max	£5,668	£20,730	£50,795	£50,795

20 years charge	100kVA connected at LV	500kVA connected at LV	500kVA connected at HV	1,000kVA connected at HV
Min	£40,459	£149,300	£361,737	£361,737
Ave	£72,112	£261,137	£630,541	£630,541
Max	£113,364	£414,607	£1,015,901	£1,015,901

20 years NPV @ 5%	100kVA connected at LV	500kVA connected at LV	500kVA connected at HV	1,000kVA connected at HV
Min	£25,211	£93,031	£225,402	£225,402
Ave	£44,934	£162,717	£392,897	£392,897
Max	£70,638	£258,346	£633,019	£633,019

26. The maximum other costs (based on a 10% load factor and 0.95 power factor) that a generator may need to pay post-connection, which could otherwise be avoided as a Demand Connection, ranged from an NPV of c.£21k to £212k:

Annual charge	100kVA connected at LV	500kVA connected at LV	500kVA connected at HV	1000kVA connected at HV
2%	£340	£1,700	£1,700	£3,399
5%	£850	£4,249	£4,249	£8,498
10%	£1,700	£8,498	£8,498	£16,996

20 years charge	100kVA connected at LV	500kVA connected at LV	500kVA connected at HV	1000kVA connected at HV
2%	£6,798	£33,992	£33,992	£67,983
5%	£16,996	£84,979	£84,979	£169,958
10%	£33,992	£169,958	£169,958	£339,916

20 years NPV @ 5%	100kVA connected at LV	500kVA connected at LV	500kVA connected at HV	1000kVA connected at HV
2%	£4,236	£21,181	£21,181	£42,361
5%	£10,590	£52,951	£52,951	£105,903
10%	£21,181	£105,903	£105,903	£211,805

27. Therefore in total, mapping the minimum fixed charges to the lowest load factor etc, the maximum costs that a generator may need to pay post-connection, which could otherwise be avoided as a Demand Connection, ranged from an NPV of c.£92k to £845k.

20 years NPV @ 5%	100kVA connected at LV	500kVA connected at LV	500kVA connected at HV	1000kVA connected at HV
Min	£29,447	£114,211	£246,582	£267,763
Ave	£55,524	£215,669	£445,848	£498,799
Max	£91,819	£364,249	£738,922	£844,824

28. The tables show that if a 100kVA import capacity was adequate, then on average it would appear rational for a generator to seek to satisfy criteria to be deemed a Demand Connection for the purposes of connection charging, if around £55k of reinforcement charges (Cost Apportionment Factor (CAF) contribution) could be avoided. For a 1,000kVA import, then on average this would appear rational if around £500k of reinforcement charges were avoided.

29. The working group therefore considered how much of an incentive this would be to generators/how likely it would be and investigated how many connection offers were made to generators in the 2020/21 and 2021/22 regulatory years where their reinforcement contribution was greater than £50k.
30. The working group considered a range of reinforcement contributions and identified that just over half (54%) of all offers included a contribution <£50k i.e. that is to say, the working group consider that, based on recent historical data, it is reasonable to assume that on average around half of all connection offers would not offer a strong enough incentive to avoid paying for reinforcement.
31. Therefore, around half (46%) may see a strong enough incentive to seek to avoid paying reinforcement costs at the expense of facing higher ongoing use of system and policy costs. The findings are summarised below:

Reinforcement contribution by Ofgem reporting category	£50k-£200k	£200k-£400k	£400k-£1m	>£1m	Total
DG132	4%	2%	4%	9%	20%
DGEHV	7%	3%	5%	4%	20%
DGHV	3%	1%	1%	0%	5%
DGLV	0%	0%	0%	0%	0%
Total	15%	7%	10%	13%	46%

32. The strength of the incentive varies relative to the cost of the reinforcement, and where reinforcement contributions increase, the percentage of connection offers likely to encourage a generator to try to pass as a Demand Connection decreases. As shown in the table below around a quarter of connection offers may incentivise generators to avoid paying reinforcement contributions of around £400k, and this reduces to around 13% when contributions would be around £1m:

Threshold	£50k	£200k	£400k	£1m
% of connection offers	46%	30%	24%	13%

33. Therefore the working group consider that a significant proportion of generators will face a reasonable commercial decision as to whether they should seek to satisfy criteria of a Demand Connection for the purposes of connection charging. It is therefore essential that the terms Demand Connection and Generation Connection are appropriately defined to avoid introducing undue distortions that will result DUoS customers facing higher than necessary costs, to recognise (e.g.) that a generator is principally a generator whether it has a small amount of 'Final Demand' on site or not.
34. Further, the working group recognise the risk that such generators may still be able to also avoid the enduring use of system and policy costs unless appropriate mitigation steps are implemented. One such mitigation could be in relation to a when change in Non-Final Demand Site certification may be considered reasonable, and/or where retrospective contributions to reinforcement may become a liability to the connectee as a further protection to DUoS customers.
35. The working group is concerned about unintended consequences and complexities of seeking retrospective reinforcement contributions, where for example a generator is treated as a Demand Connection for the purposes of connection charging, but later certifies as a Non-Final Demand Site for use of system charging (i.e. avoiding significant enduring costs as well as upfront reinforcement costs).

36. The working group consider that it would be reasonable to amend the definitions of Final Demand Site/Non-Final Demand Site in Schedule 32 to reference whether, since 1 April 2023, that site was subject to the demand or generation connection boundary.
37. This could take the form of an additional criteria, added to the definitions eg *“Final Demand Site means: (a) Domestic Premises; or (b) a Single Site (as defined in Schedule 32) at which there is Final Demand, as determined in accordance with Paragraphs 1.10 and 5 of Schedule 32, or (c) a Single Site that has needed reinforcement but not paid for it relating to a connection application since 1 April 2023.”*
38. The working group recognise that there may also be a need to review the ‘exceptional circumstances’ in Schedule 32 to reflect when a change in Non-Final Demand Site certification is appropriate.

Issue 2 – timing of Non-Final Demand Site certification (‘practicality’)

39. Regardless of policy intent, existing sites will be classified as either a Final Demand Site or Non-Final Demand Site. Non-Final Demand Site certification may be incorporated into a new connections process; however it relies upon an MPAN having been created and registered to satisfy the definition.
40. Therefore, this is incompatible with a timeframe where a DNO needs to issue a quote based on either a shallow or shallow-ish connection boundary. For new connections, and subject to policy intent as a minimum where the connection is not to an existing site, the definition of Non-Final Demand Site is not appropriate.

Options for defining Demand Connection and Generation Connection

Option 1(a). Original proposal ('original')

Definitions

Demand Connection	means any connection which would be classed as a Final Demand Site for the purposes of Schedule 32 of the DCUSA.
Generation Connection	means any connection which would not be classed as a Final Demand Site for the purposes of Schedule 32 of DCUSA, including Non-Final Demand Sites.

Assessment

Considers primary purpose of the site?	<p>These definitions are strictly in line with the directed requirement but ignore the 'primary purpose' of the site (paragraph 3.37 of the final decision) but amends the criteria for the purposes of connection charging (i.e. reference to paragraph 3.42 of the final decision) by simplifying the requirement to be a Non-Final Demand Site (i.e. removes post-connection certification and registration criteria).</p>
Mitigates the fairness issue?	<p>This option would mitigate the fairness issue as a DNO would either (i) know whether an existing site was a Final Demand Site or a Non-Final Demand Site, or (ii) for a new site, be allowed to make a subjective assessment as to whether that site should be a Final Demand Site or a Non-Final Demand Site.</p> <p>This recognises that the presence of any Final Demand should mean that the site is a Final Demand Site. However, this could be easily gamed by a connectee e.g. by claiming that it is not guaranteed that 100% of the import capacity will solely be for the purposes of generating or storing electricity, therefore it would need to be considered as Final Demand. However, the risk of that site then benefiting from avoiding residual charges etc, by later classifying as a Non-Final Demand Site, could be mitigated by amending the definitions in DCUSA Schedule 32 e.g. by linking to whether reinforcement has been paid or not.</p>

Mitigates the practicality issue?	The use of “would be classed” arguably resolves the practicality issue as the site would not necessarily require Non-Final Demand Site certification for the purpose of connection charging.
Need for additional legal text?	<p>These definitions rely on DNO subjective assessment, and where a Generation Connection would need to satisfy the DNO that the site will:</p> <ul style="list-style-type: none"> (i) have registered import and export MPANs; and (ii) measure import for the purposes of electricity storage and/or generation only; and (iii) provide valid certification for Non-Final Demand Site classification. <p>Additional legal text would probably be needed to provide for a circumstance where the DNO assessment is incorrect e.g. where the customer has not paid for reinforcement but later – and within a defined period – is certified as a Non-Final Demand Site. Consideration would be needed in relation to:</p> <ul style="list-style-type: none"> (i) the length of time a site must retain Final Demand Site classification (e.g. for the duration of the period in which the residual charging bands in Schedule 32 are in effect³, or (e.g.) two years, whichever is greater); and (ii) the proportion of avoided reinforcement costs the customer/connectee may be liable for in retrospect.⁴ <p>Another option would be to link whether reinforcement has been paid to the definitions in DCUSA Schedule 32.</p>
Other comments	It is not possible to utilise the TCR definitions of Final Demand Site/Non-Final Demand Site whilst considering the primary purposes of a site, therefore any additional criteria may result in contradictions if seeking to address the primary purpose consideration.
Conclusion	The working group agreed to take this option forward given it satisfies the directed requirement and Ofgem’s final decision, other than the need to consider the primary purpose of the site – which the working group agree conflicts with alignment to the TCR definitions.

³ The charging bands are revised in line with each onshore electricity transmission owner price control period (e.g. they will be revised ahead of RII0-ET3), so typically every five years.

⁴ A balance will be needed considering what reinforcement may have been recovered via published DUoS charges and/or the higher DUoS charges faced by the customer, to ensure that licence obligations are adhered to by not recovering the same costs through both connection and DUoS charges.

Option 1(b). TCR alignment in principle ('Principle TCR')

Definitions

Demand Connection	means any connection which is not a Generation Connection.
Generation Connection	means a connection to a Premises where electricity will be consumed only for the purposes of Electricity Generation and/or Electricity Storage.

Assessment

Considers primary purpose of the site?	The definition of Generation Connection is essentially a Non-Final Demand Site less registration and certification criteria that cannot be satisfied prior to a customer at least accepting a connection quotation. Consistent with the other options, this ignores the 'primary purpose' of the site and adds no additional criteria for the purposes of connection charging.
Mitigates the fairness issue?	A generator could still reasonably claim that import will be used for some Final Demand and therefore not satisfy the definition of Generation Connection. As noted, this could be mitigated by amending the definitions in DCUSA Schedule 32 e.g. by linking to whether reinforcement has been paid.
Mitigates the practicality issue?	The term Non-Final Demand Site is not used specifically, therefore there is no explicit need for certification. The use of "will be" arguably resolves the practicality issue regardless.
Need for additional legal text?	<p>Same as option 1(a) (definitions in principle).</p> <p>It will require the definitions of Electricity Generation and Electricity Storage brought into the CCCM from Schedule 32, and therefore they will need to be maintained in parallel.</p> <p>Based on the TCR principles, the definitions avoid reference to: Final Demand, Final Demand Site, Non-Final Demand Site and implicit within, Single Site. This creates a risk of divergence with DCUSA Schedule 32 therefore changes to the relevant parts of the DCUSA would also need to be maintained in parallel, for as long as the policy intent is that the definitions should be aligned (in intend in this case).</p>
Other comments	The use of 'Premises' risks creating issues in aligning with CCCM terminology e.g. where multiple Single Sites per Schedule 32 may be at a single Premises or where multiple Premises may be considered a Single Site.

Conclusion	<p>The working group agreed to take this option forward given it satisfies the directed requirement and Ofgem’s final decision, other than the need to consider the primary purpose of the site – which the working group agree conflicts with alignment to the TCR definitions.</p> <p>The working group need to give further consideration to:</p> <ul style="list-style-type: none"> (i) avoiding using terms defined in other parts of the DCUSA by name; and (ii) the use of Premises which may not align with how residual DUoS charges are applied to a ‘site’ which is determined by MPANs specified on a bilateral connection agreement (where there is one). <p>The benefits of not referring to defined terms in other parts of the DCUSA include simplicity in administration for a user (i.e. no need to search outside of the CCCM). However, this could be mitigated by including defined terms within the CCCM that are used elsewhere e.g. inserting the definition of Final Demand etc, and using the same definition. Regardless, the risk is misalignment with other parts of the DCUSA, if those terms are amended.</p>
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Option 2. Strict TCR alignment ('strict TCR')

Definitions

Demand Connection	means any connection to a Final Demand Site, as defined in Schedule 32 of the DCUSA.
Generation Connection	means any connection to a Non-Final Demand Site, as defined in Schedule 32 of DCUSA.

Assessment

Considers primary purpose of the site?	<p>These definitions are strictly in line with the TCR definitions but ignore the 'primary purpose' of the site and therefore add no additional criteria for the purposes of connection charging.</p> <p>Connections to an existing site would be subject to the connection boundary as determined by the Final Demand Site or Non-Final Demand Site classification of that site i.e. a Final Demand Site would not pay for reinforcement of a new connection to that site (subject to the demand HCC) and a Non-Final Demand Site would pay for reinforcement at the voltage of connection of a new connection to that site (subject to the generation HCC), and regardless of whether the 'connection' in isolation was primarily for the purpose of demand or generation.</p>
Mitigates the fairness issue?	<p>For existing sites, yes – as any future connections to that site would be subject to the appropriate connection boundary determined by the Final Demand Site status of that site prior to the introduction of an incentive not to be a Non-Final Demand Site (which is incentivised for the purposes of DUoS charges). Technically, there is currently no provision for sites changing from Final Demand Site to Non-Final Demand Site status in Schedule 32, albeit it is our understanding that DNOs are applying common sense and allowing this to happen where valid Non-Final Demand Certification is received.</p> <p>It does not mitigate against this risk for new sites which would all be a Final Demand Site by default, as Non-Final Demand Site certification would not be possible.</p>

Mitigates the practicality issue?	Non-Final Demand Site certification would not be possible in accordance with Schedule 32 which relies upon an MPAN having been created and registered to satisfy the definition. Therefore, all new sites would be a Final Demand Site for the purpose of connection charging, and therefore not contribute towards reinforcement (subject to the demand HCC). This is not in line with policy intent.
Need for additional legal text?	n/a
Other comments	It is not possible to utilise the TCR definitions of Final Demand Site/Non-Final Demand Site whilst considering the primary purposes of a site, therefore any additional criteria may result in contradictions if seeking to address the primary purpose consideration.
Conclusion	The working group agreed not to take this option forward as it fails to deliver on multiple aspects of the final decision: (i) it is not in line with policy intent regarding new sites – which would always default to being classified as a Final Demand Site, and (ii) it also does not satisfy Ofgem’s final decision to consider the primary purpose of the site.

Site primary purpose based on TCR – subjective ('primary purpose – subjective')

Definitions

Demand Connection	means any connection which is not a Generation Connection.
Generation Connection	means a connection to a Premises where the primary purpose of that Premises is Electricity Generation and/or Electricity Storage.

Assessment

Considers primary purpose of the site?	Same as option 2 however – unlike option 2 – the definition considers the 'primary purpose' of that site, but without defining how that is determined.
Mitigates the fairness issue?	Whilst a generator could still reasonably claim that import will be used for some Final Demand, a DNO would likely consider it to be a generator where – e.g. as a minimum – the maximum export capacity (MEC) was higher than the MIC. As noted, this could be mitigated by amending the definitions in DCUSA Schedule 32 e.g. by linking to whether reinforcement has been paid.
Mitigates the practicality issue?	Same as option 1(b).
Need for additional legal text?	Same as option 1(b). A subjective assessment of the primary purpose of a site may result in a different treatment by different distributors, therefore it would benefit from some rules e.g. a Generation Connection is where MEC is greater than MIC for the same Premises.
Other comments	Same as option 1(b).
Conclusion	The working group agreed not to take this option forward as, although it is the first option to consider the primary purpose of a site – in line with Ofgem's final decision – the ambiguity in determining that purpose is considered unnecessary risk and therefore option 3(b) is preferred.

Option 3(b). Site primary purpose based on TCR – objective ('primary purpose – objective')

Definitions

Demand Connection	means any connection which is not a Generation Connection.
Generation Connection	<p>means a connection to a Premises where the Primary Purpose of that Premises is Electricity Generation and/or Electricity Storage, and where in determining the Primary Purpose we will consider if:</p> <ul style="list-style-type: none">(i) the Premises is for Electricity Storage only;(ii) Maximum Capacity for export is greater than Maximum Capacity for import;(iii) the Premises has a generation licence;(iv) the Electricity Generation is for back-up purposes only; and(v) any other information the Company considers relevant.

Assessment

Considers primary purpose of the site?	Same as option 3(a), however – unlike option 3(a) – the definition is based upon rules that determine the 'Primary Purpose' i.e. a new defined term.
Mitigates the fairness issue?	Same as option 3(a) albeit with a more transparent definition of a site's 'primary purpose'. However, this could lead to gaming depending on how Primary Purpose is defined. Further, and as noted, this could be mitigated by amending the definitions in DCUSA Schedule 32 e.g. by linking to whether reinforcement has been paid.
Mitigates the practicality issue?	Same as options 1(b) and 3(a).
Need for additional legal text?	<p>Same as option 1(b).</p> <p>A definition of Primary Purpose is needed e.g. where MEC is greater than MIC. Consideration should be given to a threshold e.g. where import needs to be x% higher than export, to mitigate against the risk of gaming (albeit by introducing a potentially arbitrary boundary). However, other essential criteria could be considered, which may be more explicit for existing sites e.g. considering maximum demand/usage etc.</p>
Other comments	Same as options 1(b) and 3(a).
Conclusion	The working group agreed to take this option forward given it satisfies Ofgem's final decision including consideration of the primary purpose of the site.

	<p>The working group recognise that, considering the primary purpose of a site conflicts with alignment to the TCR definitions and therefore, strictly speaking, the directed requirements. However, this option is based on the key TCR principal of Final Demand, albeit it may give rise to circumstances where a Generation Connection may have some Final Demand; the TCR definitions would therefore consider that site to be a Final Demand Site i.e. a Demand Connection, and the intent of this option is not to by default.</p> <p>Consistent with option 3(a), the working group need to consider the use of defined terms used elsewhere in the DCUSA, and the use of Premises.</p>
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Option 4. Consider the primary purpose of each connection independent of the site ('primary purpose – connection only')

Definitions

Demand Connection	means any connection which is not a Generation Connection.
Generation Connection	means any connection which the DNO Party satisfies itself will not measure import for Final Demand.

Assessment

Considers primary purpose of the site?	<p>These definitions are in line with the directed requirement to utilise the TCR definitions insofar as the presence of any Final Demand is the key criteria for determining what is a Final Demand Site and a Non-Final Demand Site. It is based on a very 'loose' interpretation of the final decision and direction, where it disregards the purpose of the site to which the connection is to, and instead gives regard to the primary purpose of the connection itself only.</p> <p>This option recognises that it is not possible to otherwise utilise the TCR definitions of Final Demand Site/Non-Final Demand Site whilst considering the primary purposes of a site as a whole and therefore focuses on the primary purpose of the connection only and based on the core principle of the TCR i.e. whether the connection will use Final Demand.</p>
Mitigates the fairness issue?	Yes – the appropriate connection boundary would apply relative to the purpose of the connection only and therefore like-for-like demand and generation will be treated on an equivalent basis for new and existing sites.
Mitigates the practicality issue?	The term Non-Final Demand Site is not used specifically, therefore there is no explicit need for certification.
Need for additional legal text?	Consistent with option 1(a), additional legal text may be needed to provide for a circumstance where the DNO subjective assessment is incorrect, however this is less likely given (e.g.) a generation only connection would be no less clear than the status quo, with the key assessment being is the requested import capacity proportional to what

	<p>is needed for the site to export to the extent it has requested capacity to.</p> <p>It will require the definition of Final Demand brought into the CCCM from Schedule 32 – by reference or duplicate wording, and if the latter, therefore it will need to be maintained in parallel.</p>
Other comments	<p>The inconsistency with the other options is that connections to an existing site would be not subject to the connection boundary as default determined by the Final Demand Site or Non-Final Demand Site classification of that site (or as defined in principle).</p>
Conclusion	<p>The working group agreed not to take this option forward as it is not in line with policy intent but wish to present that this has been considered to Ofgem as part of the development of the solution.</p>

Examples of a Demand Connection and Generation Connection

41. Consider the following examples of potential connection requests:
- (a) Final Demand Site seeks to increase import capacity by 5MVA
 - (b) Non-Final Demand Site seeks to increase import capacity by 5MVA: MEC still greater than MIC
 - (c) Final Demand Site seeks to add 5MVA export capacity: MIC still greater than MEC
 - (d) Non-Final Demand Site seeks to increase export capacity by 5MVA
 - (e) New site applies for an import only connection of 5MVA
 - (f) New site applies for an import and export connection of 5MVA (battery storage)
 - (g) New site applies for an export connection of 5MVA with a 0.1MVA import connection (not Final Demand)
 - (h) Non-Final Demand Site seeks to increase import capacity by 5MVA: MIC then greater than MEC
 - (i) Final Demand Site seeks to add 5MVA export capacity: MEC then greater than MIC
 - (j) New site applies for an export connection of 5MVA with a 0.1MVA import connection (some Final Demand)
42. Based on the options considered for defining a Demand Connection and a Generation Connection, the examples above would likely be treated as demand or generation as follows (highlighted cells represent different/potentially different classification to the original proposal):

Example	Option 1(a) (Original)	Option 1(b) (Principle TCR)	Option 2 (Strict TCR)	Option 3(a) (Primary purpose – subjective)	Option 3(b) (Primary purpose – objective)	Option 4 (Primary purpose – connection only)
(a) Final Demand Site seeks to increase import capacity by 5MVA	Demand	Demand	Demand	Demand	Demand	Demand
(b) Non-Final Demand Site seeks to increase import capacity by 5MVA: MEC still greater than MIC	Generation	Generation	Generation	*Generation*	*Generation*	Demand
(c) Final Demand Site seeks to add 5MVA export capacity: MIC still greater than MEC	Demand	Demand	Demand	*Demand*	*Demand*	Generation
(d) Non-Final Demand Site seeks to increase export capacity by 5MVA	Generation	Generation	Generation	Generation	Generation	Generation
(e) New site applies for an import only connection of 5MVA	Demand	Demand	*Demand*	Demand	Demand	Demand
(f) New site applies for an import and export connection of 5MVA (battery storage)	Generation	Generation	*Demand*	Generation	Generation	Generation
(g) New site applies for an export connection of 5MVA with a 0.1MVA import connection (not Final Demand)	Generation	Generation	*Demand*	Generation	Generation	Generation
(h) Non-Final Demand Site seeks to increase import capacity by 5MVA: MIC then greater than MEC	Generation	Generation	Generation	Demand	Demand	Demand
(i) Final Demand Site seeks to add 5MVA export capacity: MEC then greater than MIC	Demand	Demand	Demand	Generation	Generation	Generation
(j) New site applies for an export connection of 5MVA with a 0.1MVA import connection (some Final Demand)	Demand	Demand	*Demand*	Generation	Generation	Generation

43. In option 2 ('Strict TCR'), examples (e) to (g) and (j) would need to be treated as demand because Non-Final Demand Site certification could not be achieved, therefore by default the connection would be treated as a Final Demand Site.
44. In options 1(b) ('Principle TCR'), 3(a) ('Primary purpose – subjective') and 3(b) ('Primary purpose – objective'), it depends on how Premises/equivalent term is defined.

45. For the purposes of options 3(a) ('Primary purpose – subjective') and 3(b) ('Primary purpose – objective'), it depends on how 'primary purpose' is determined/defined but it is assumed that in the examples a Final Demand Site has, as a minimum, a MIC greater than its MEC (and vice versa), such that it is clear-cut.

Definitions being taken forward by the working group

Option 1(a). Original proposal ('original')

Demand Connection	means any connection which would be classed as a Final Demand Site for the purposes of Schedule 32 of the DCUSA.
Generation Connection	means any connection which would not be classed as a Final Demand Site for the purposes of Schedule 32 of DCUSA, including Non-Final Demand Sites.

Option 1(b). TCR alignment in principle ('Principle TCR')

Demand Connection	means any connection which is not a Generation Connection .
Generation Connection	means a connection to a Premises where electricity will be consumed only for the purposes of Electricity Generation and/or Electricity Storage .

Option 3(b). Site primary purpose based on TCR – objective ('primary purpose – objective')

Demand Connection	means any connection which is not a Generation Connection .
Generation Connection	<p>means a connection to a Premises where the Primary Purpose of that Premises is Electricity Generation and/or Electricity Storage, and where in determining the Primary Purpose we will consider if:</p> <ul style="list-style-type: none">(i) the Premises is for Electricity Storage only;(ii) Maximum Capacity for export is greater than Maximum Capacity for import;(iii) the Premises has a generation licence;(iv) the Electricity Generation is for back-up purposes only; and <p>any other information the Company considers relevant.</p>

Working group assessment of the options

Option	Pros	Cons
Option 1(a) 'original'	<ul style="list-style-type: none"> • Strictly in line with the direction • Mitigates risks over the Non-Final Demand Site practicality issue (removes post-connection certification and registration criteria) • Mitigates risks over the fairness issue by allowing the DNO to assess the nature of the site the connection is to in determining whether it would be a Final Demand Site for DUoS charging purposes • Additional legal text could mitigate the risk of fairness being compromised • Retains the use of terms defined in DCUSA Schedule 32 for consistency i.e. changes to Schedule 32 will automatically retain alignment with the CCCM • If Schedule 32 definitions are amended to mitigate the fairness risk, this option provides a clear link between when reinforcement is payable by using those definitions in the CCCM 	<ul style="list-style-type: none"> • Does not satisfy the need to consider the primary purpose of the site to which the connection is to • Retains a risk that the fairness issue may exist where a site may be considered (e.g.) a Demand Connection for connection charging purposes, but a Non-Final Demand Site for DUoS charging purposes i.e. thereby avoiding upfront and enduring charges • CCCM is effectively a standalone methodology published by each DNO. Therefore referencing definitions in other parts of the DCUSA, and using terminology not consistent with the CCCM, risks confusing customers. This could be mitigated by repeating defined terms, but there is a trade-off between, simplicity efficiency and practicality
Option 1(b) 'Principle TCR'	<ul style="list-style-type: none"> • Strictly in line with the intent of the direction • Mitigates risks over the Non-Final Demand Site practicality issue (removes post-connection certification and registration criteria) • Mitigates risks over the fairness issue by allowing the DNO to assess the nature of the site the connection is to in determining whether it would be a Final Demand Site for DUoS charging purposes • Additional legal text could mitigate the risk of fairness being compromised • Easier to understand for the customer by not using terms defined in other areas of the DCUSA and therefore a need to look them up 	<ul style="list-style-type: none"> • Does not satisfy the need to consider the primary purpose of the site to which the connection is to • Retains a risk that the fairness issue may exist where a site may be considered (e.g.) a Demand Connection for connection charging purposes, but a Non-Final Demand Site for DUoS charging purposes i.e. thereby avoiding upfront and enduring charges • Is less in strict alignment with the TCR than option 1(a) but the trade-off being simplicity. However, it does so by: <ul style="list-style-type: none"> (i) introducing additional definitions of Electricity Generation and Electricity Storage; and (ii) risking divergence in meaning, therefore requiring additional maintenance to ensure consistency with Schedule 32 • The use of 'Premises' may risk divergence with the use of 'Single Site'

Option	Pros	Cons
		in Schedule 32 if e.g. there is a risk that a Single Site may contain multiple Premises and vice versa
Option 3(b) 'primary purpose – objective'	<ul style="list-style-type: none"> • Aligned to the TCR in principle i.e. by considering Final Demand but also considers the primary purpose of a site in accordance with the final decision • Mitigates risks over the Non-Final Demand Site practicality issue (removes post-connection certification and registration criteria) • Mitigates risks over the fairness issue by: <ul style="list-style-type: none"> (i) allowing the DNO to assess the nature of the site the connection is to in determining whether it would be a Final Demand Site for DUoS charging purposes; and (ii) further mitigating it by accepting that (e.g.) a windfarm with a small amount of Final Demand is still principally a generator, such that the presence of any Final Demand is not by default the need to consider a site a Final Demand Site (i.e. pay no reinforcement) • Additional legal text could mitigate the risk of fairness being compromised • Easier to understand for the customer by not using terms defined in other areas of the DCUSA and therefore a need to look them up 	<ul style="list-style-type: none"> • Compromises alignment with the TCR and therefore the direction to satisfy the requirement in the final decision to consider the primary purpose of a site • Trade-off for simplicity is achieved by: <ul style="list-style-type: none"> (i) introducing additional definitions of Electricity Generation and Electricity Storage; and (ii) risking divergence in meaning, therefore requiring additional maintenance to ensure consistency with Schedule 32 • The use of 'Premises' may risk divergence with the use of 'Single Site' in Schedule 32 if e.g. there is a risk that a Single Site may contain multiple Premises and vice versa