

Completed acquisition by National Grid Holdings One plc of PPL WPD Investments Limited

Decision on relevant merger situation and substantial lessening of competition

ME/6935/21

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SUMMARY

1. On 14 June 2021, National Grid Holdings One plc (**NGHO**), an indirect wholly owned subsidiary of National Grid plc (**NG**), acquired the entire issued share capital of PPL WPD Investments Limited (**WPD**) (the **Merger**). NG and WPD are together referred to as the **Parties** or, for statements referring to the future, the **Merged Entity**.
2. The Competition and Markets Authority (**CMA**) believes that it is or may be the case that each of NG and WPD is an enterprise; that these enterprises have ceased to be distinct as a result of the Merger; and that the turnover test is met. The four-month period for a decision has not yet expired. The CMA therefore believes that it is or may be the case that a relevant merger situation has been created.
3. The Parties' core activities of relevance to the CMA's assessment of the Merger are:
 - (a) National Grid Electricity Transmission plc (**NGET**) is the licensed owner (**TO**) of the onshore high voltage electricity transmission network in England and Wales. National Grid Electricity System Operator Limited (**NGESO**) is the licensed system operator (**ESO**) of the high voltage national electricity transmission system (both onshore and offshore) (the **NETS**) in Great Britain (and is responsible for the operation, among others, of NGET's transmission network).

- (b) WPD is the parent company of the following four operating companies, each of which is a licensed distribution network operator (**DNO**) in Great Britain: WPD (South West) plc, WPD (South Wales) plc, WPD (East Midlands) plc and WPD (West Midlands) plc.
4. The CMA has identified the following potential overlaps between the Parties' activities:
- (a) The supply of new connections to electricity networks. As both Parties are monopoly suppliers of connections to their own networks, an overlap only arises if connections to the transmission and the distribution networks are substitutes from the perspective of customers.
- (b) The supply of works to deliver a connection to the electricity network which are not monopoly activities, namely contestable new connection works.
- (c) The supply of engineering and consultancy services.
- (d) The supply of metering services.
5. There is also a vertical relationship between NG and WPD as electricity is transported through NGET's transmission network to all DNOs in England and Wales through grid supply points and NGESO is the ESO in Great Britain. NG also carries out infrastructure works such as reinforcement and maintenance works in DNOs' areas, which affects their ability to provide new connections.
6. Although it was not necessary for the CMA to reach a conclusion on the frame of reference, since, as set out below, no competition concerns arise on any plausible basis, the CMA has assessed whether the Merger gives rise to:
- (a) Horizontal unilateral effects in the supply of new connections to electricity networks within WPD's licensed geographic area.
- (b) Partial input foreclosure of electricity infrastructure to DNOs other than WPD in Great Britain.
- (c) Horizontal unilateral effects in the supply of contestable new connection works for distribution asset voltages and asset maintenance services for distribution asset voltages in WPD's licensed geographic area.
- (d) Horizontal unilateral effects in the supply of meter asset provider services (**MAP**) in Great Britain, including possible segmentations for (i) smart and traditional meters; (ii) gas and electricity meters; and (iii) meters for domestic and industrial & commercial (**I&C**) premises.

- (e) Horizontal unilateral effects in the supply of meter installation and maintenance services (**MAM/MOP**) in Great Britain, including possible segmentations for (i) smart and traditional meters; (ii) gas and electricity meters; and (iii) meters for domestic and I&C premises.

Horizontal effects

Horizontal unilateral effects in the supply of new connections to electricity networks within WPD's licenced geographic area

7. The CMA considered, given that the Parties are regulated monopolies, whether the Parties currently compete with each other to supply new connections to electricity networks. The CMA found that only a small number of customers may have a choice between connecting to the transmission or the distribution network depending on the specifics of the particular project (for example, project capacity requirements, available connection voltage, the distance to both networks and whether there is available capacity on both networks).
8. The CMA found that the Parties must provide connection offers whenever requested by a potential customer other than in exceptional circumstances and have no material ability to flex their offers having regard to the factors that affect customer choice due to regulatory and technical issues. No customers or DNOs that responded to the CMA's investigation indicated that the Parties compete with each other.
9. Therefore, the CMA believes that the Parties do not currently compete with each other to win customers to any material degree. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of a substantial lessening of competition (**SLC**) as a result of horizontal unilateral effects in the supply of new connections to electricity networks within WPD's licenced geographic area.

Horizontal unilateral effects in the supply of contestable new connection works at distribution asset voltages and asset maintenance services at distribution asset voltages in WPD's licensed geographic area

10. Subject to limited exceptions, both Parties provide contestable new connection works to assets connected to their own networks only. Similarly, NG provides maintenance services to assets connected to its own network only and WPD provides maintenance services for distribution asset voltages only.

11. The CMA therefore believes that there are very limited circumstances in which both Parties might in practice compete with each other to supply contestable new connection works and asset maintenance services at distribution asset voltages for the same project. This is consistent with customers and suppliers' views that the Parties do not compete with each other on the supply of such services. In any event there are at least 5 to 10 alternative suppliers of such services. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral effects in the supply of (i) contestable new connection works at distribution asset voltages and (ii) asset maintenance services at distribution asset voltages.

Horizontal unilateral effects in the supply of MAP services in Great Britain

12. The CMA found that the Parties have very low combined shares of supply (less than [0-5]%) in the supply of MAP services overall and on the only potential segment of MAP services where they overlap. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral effects in the supply of MAP services in Great Britain.

Horizontal unilateral effects in the supply of MAM/MOP services in Great Britain

13. The CMA found that the Parties have low combined shares of supply in the supply of MAM/MOP services for electricity and gas meters, including in the only segment where the Parties overlap. In both cases, the Parties' combined shares of supply are less than [10-20]% with an increment of at most [5-10]%. The CMA also found that the Parties are not close competitors as WPD does not provide any services for gas meters, which comprise all of NG's portfolio for MAM/MOP services. Moreover, the CMA found that customers will continue to have at least five alternative suppliers of MAM/MOP services. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral effects in the supply of MAM/MOP services in Great Britain.

Vertical effects

Partial input foreclosure of electricity infrastructure to DNOs other than WPD in Great Britain.

14. The CMA considered whether NG might prioritise infrastructure works in WPD's geographic area (or deprioritise work in other DNOs' areas) to the detriment of other DNOs (and independent distribution network operators

(IDNOs) in their respective areas) (eg carrying out infrastructure works at reduced timescales in WPD's area). This could be the case, for example, where a connection to a DNO's network in NGET's licensed geographic area requires reinforcement works at the transmission network that would need to be carried out by NGET. If the speed at which network reinforcement work is carried out by NGET influences a customer's choice of which distribution network to connect to, this could allow WPD to win more customers to the detriment of other DNOs.

15. The CMA first considered whether there is competition between DNOs to win new connections customers (as, if DNOs do not compete to win customers, any decisions that might theoretically be taken by NG to favour WPD when carrying out infrastructure works could not impact on competition downstream and therefore give rise to an SLC).
16. The CMA found that only a limited number of customers have a choice between connecting to WPD's and other DNOs' networks. However, DNOs are heavily constrained by regulation and the CMA has received no evidence that they currently compete with each other to win customers. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result of vertical effects in the supply of new connections to distribution networks in Great Britain.

Decision

17. Accordingly, the CMA believes that the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral and vertical effects.
18. The Merger will therefore **not be referred** under section 22(1) of the Enterprise Act 2002 (the **Act**).

ASSESSMENT

Parties

19. NG is a multinational electricity and gas company operating in the UK and the United States, headquartered in London.¹ NG's worldwide turnover in the financial year 2020 was £14,540 million, of which £5,282 million was generated in the UK.²

¹ Final Merger Notice submitted by the Parties to the CMA on 12 July 2021 (FMN), paragraph 3.1.

² FMN, table 6.1.

20. Among other things, NG is active in the transmission of electricity in England and Wales. NG's primary activities of relevance to the CMA's assessment of the Merger are as follows.
- (a) NGET is the TO of the onshore high voltage electricity transmission network in England and Wales.
 - (b) NGESO is the ESO of the high voltage NETS (both onshore and offshore) in Great Britain (and is responsible for the operation, among others, of NGET's transmission network).
 - (c) National Grid Smart Limited (**NGS**) provides electricity and gas smart metering services in Great Britain and National Grid Metering Limited (**NGM**) provides traditional (non-smart) gas metering services in Great Britain.
 - (d) NGET, through the National Grid Engineering and Consultancy Solutions (**NG ECS**) brand, provides certain electrical engineering and consultancy services.³
21. WPD is active in the distribution of electricity in England and Wales and is headquartered in Bristol. WPD's worldwide turnover in the financial year 2020 was £1,723.5 million, all of which was generated in the UK.⁴
22. WPD's primary activities of relevance to the CMA's assessment of the Merger are as follows:
- (a) WPD is the parent company of the following four operating companies, each of which is a licensed DNO in Great Britain: WPD (South West) plc, WPD (South Wales) plc, WPD (East Midlands) plc and WPD (West Midlands) plc.
 - (a) WPD provides traditional and smart electricity metering services in the UK (the latter through WPD Smart Metering Limited (**WPD SM**)).
 - (b) WPD Contracting Services (**WPD ECS**) provides certain electrical engineering and consultancy services to third parties located within or proximate to the licensed area of the four WPD DNOs.⁵

Transaction

23. On 17 March 2021, NGHO, an indirect wholly owned subsidiary of NG, agreed to purchase the entire issued share capital of WPD from PPL WPD

³ FMN, paragraph 5 and 61.13.

⁴ FMN, table 6.2.

⁵ FMN, paragraph 6.

Limited, an indirect wholly owned subsidiary of PPL Corporation for an equity value of £7.8 billion.⁶ The Merger completed on 14 June 2021.

Rationale for the Merger

24. The Parties submitted that the Merger is part of a wider long-term strategic repositioning of NG to focus on the electricity sector, driven by NG's ambition to play a leading role in delivering the transition to net zero.⁷ As part of this repositioning, NG previously sold its gas distribution network business and plans to sell a majority stake in National Grid Gas plc (the owner and operator of the high-pressure gas transmission network in Great Britain) including its subsidiary NGM, NG's traditional (non-smart) gas metering business, in the near future.⁸ⁱ
25. The Parties' internal documents assessed by the CMA were consistent with the Parties' submissions on the rationale for the Merger.

Jurisdiction

26. Each of NG and WPD is an enterprise. As a result of the Merger, NG and WPD have ceased to be distinct.
27. WPD's UK turnover exceeds £70 million. Accordingly, the turnover test set out at section 23(1)(b)(i) of the Act is satisfied.
28. The Merger completed on 14 June 2021.⁹ The four-month deadline for a decision under section 24 of the Act is therefore 14 October 2021.
29. The CMA therefore believes that it is or may be the case that a relevant merger situation has been created.
30. The initial period for consideration of the Merger under section 34ZA(3) of the Act started on 14 July 2021 and the statutory 40 working day deadline for a decision is therefore 8 September 2021.

⁶ Press release available [here](#); FMN, paragraph 1.

⁷ The UK Government's nationwide target of net zero carbon emissions by 2050 (2045 in Scotland). FMN, paragraph 2.12. See further paragraph 49(a) below.

⁸ FMN, paragraph 2.13.

⁹ FMN, paragraph 2.7.

Background

The supply of electricity in Great Britain

31. In broad terms, there are four stages to the physical electricity supply chain: the generation of electricity by traditional fossil fuel powered plants, nuclear generators or from renewable sources such as windfarms; the transmission of electricity via the high-voltage transmission system; the distribution of electricity via the low-voltage distribution system; and the consumption of electricity by domestic and industrial/commercial customers.¹⁰
32. The transmission networks are built and owned by TOs.¹¹ As the voltage of electricity transported across the high voltage transmission networks (which in England and Wales, operates at voltages of 275 kilovolts (**kV**) or 400kV¹²) is too high to be safely used by most end-users, electricity is transported to most end-users via separate distribution networks (which in England and Wales, operate at voltages of 132kV or lower¹³).¹⁴ The electricity voltage is first reduced at substations (known as **grid supply points**) that connect the transmission network to the distribution network, and is then transported to local substations for further reduction in order to be supplied to end-users.¹⁵
33. In practice, industry changes, in particular changes to generation and consumption patterns driven by decarbonisation, mean that the supply of electricity today is more complex. This results in an increased need for flexibility to ensure the balancing of generation and consumption across the electricity system.¹⁶ For example, renewable energy generators increasingly connect to the distribution network, leading to two-way power flows.¹⁷
34. End-users of electricity generally purchase their electricity from an authorised retail supplier, who acts as an intermediary between the end-user and the rest of the electricity sector, and is responsible for, among other things, procuring electricity in the wholesale market and contracting with network operators for the provision of transmission and distribution services. Suppliers then recover

¹⁰ FMN, paragraph 11.1. See further Energy Market Investigation Final Report, 24 June 2016, paragraphs 2.5 to 2.12.

¹¹ See paragraph 36 below.

¹² See definitions of 'transmission system' and 'high voltage line' in sections 4(4) and 64(1) of the Electricity Act 1989. In Scotland, 'high voltage' is defined as 132 kV or more.

¹³ *Ibid.* In Scotland, 'low voltage' is defined as less than 132 kV.

¹⁴ FMN, paragraph 11.10. Distribution networks are built, owned and operated by electricity DNOs or IDNOs. See paragraphs 38-40 below.

¹⁵ FMN, paragraph 11.11.

¹⁶ See paragraphs 49-51 below.

¹⁷ A generator connecting to a distribution network rather than the transmission network is referred to as '**distributed generation**' or '**embedded generation**'. See [Distributed Generation \(DG\) | Ofgem](#).

the costs of procuring the various inputs through the bills charged to end-users.¹⁸

The regulation of electricity transmission and distribution

35. In Great Britain, the transmission and distribution of electricity are ‘natural monopoly’ activities, which are regulated by Ofgem.¹⁹ As a result, the Parties are subject to a number of regulatory obligations governing, among other things, the offer of new connections to their networks, interactions between the Parties and other market participants, and the revenue that their networks are permitted to earn over a specified period.²⁰
36. As a TO, NGET’s responsibilities include: maintaining, planning, designing, upgrading and constructing new sections of its transmission network; transporting electricity via its network (eg from large generation plants and interconnectors to local distribution networks and end-users directly connected to the transmission network); and establishing new connections to its network.²¹
37. As ESO, NGENSO’s responsibilities include: co-ordinating, with other market participants, the flow of electricity onto and over the NETS in Great Britain; balancing the NETS by ensuring that the generation of electricity matches the demand for it on a second-by-second basis;²² and dealing with parties seeking a connection to the NETS (including connection to NGET’s transmission network covering England & Wales) and for collecting ‘use of system charges’ on behalf of the TOs (including NGET) and offshore transmission operators.²³

¹⁸ FMN, paragraph 11.6.

¹⁹ In the exercise of its regulatory functions, Ofgem undertakes comparative benchmarking between network companies (**comparative benchmarking**). There is no energy sector equivalent of the special water merger regime, which requires the CMA to assess whether a merger between water enterprises may prejudice the ability of Ofwat, in carrying out its functions by virtue of the Water Industry Act 1991, to make comparisons between water enterprises (see further [Water and sewerage mergers: Guidance on the CMA's procedure and assessment \(publishing.service.gov.uk\)](#)). As such, the CMA has not considered the impact of the Merger on comparative benchmarking.

²⁰ In particular, NGET, NGENSO and WPD are subject to regulatory obligations under: the Electricity Act 1989; the Parties’ respective licences (as granted by Ofgem under the Electricity Act 1989 and which are comprised of ‘Standard’ and ‘Special’ conditions); various industry codes which, among other things, govern the interactions between the Parties and other industry participants and are implemented principally through licence conditions; and the Parties’ respective price controls, which set out the revenue that the network is allowed to earn over a specified period and are, also, implemented principally through licence conditions.

²¹ FMN, paragraph 3.2.1.

²² NGENSO does this by buying and selling residual amounts of electricity and procuring associated balancing services. NGENSO is also responsible for publishing accurate and unbiased information to electricity market participants to help the market to self-balance where and to the extent possible. FMN, paragraph 3.2.2.

²³ FMN, paragraph 3.2.2.

38. NGENSO is subject to licence conditions to ensure its independence from NG's other business activities, including its ownership of transmission network assets.²⁴
39. DNOs develop, operate and maintain electricity distribution networks in their licensed geographic areas. There are currently 14 licensed DNOs in Great Britain within six corporate groups.²⁵ Each DNO is responsible for a regional distribution services area as specified in its licence. Together, WPD's four DNOs distribute electricity to approximately 7.9 million customers in the South West of England, South Wales and the Midlands.
40. IDNOs develop, operate and maintain local electricity distribution networks, which are located within the licensed geographic areas of the DNOs. IDNOs are licensed network operators subject to regulatory obligations similar to those applicable to DNOs, subject to certain exceptions.²⁶

New connections to the transmission and distribution networks

41. As licensed network owners and operators, NGET (via NGENSO, which acts as the interface between the TOs and potential connectees) and WPD are obliged to provide connection offers to applicants requesting to connect to their respective electricity networks.²⁷ All transmission and distribution networks operators must ensure that new connections offers are economic, efficient and are in accordance with the charging methodologies approved by Ofgem for the non-contestable works (as defined below).²⁸
42. A connection encompasses the installation of infrastructure to connect a premises or asset to an existing electricity network (**connection works**) and the adoption of assets as a network to be operated and maintained by the

²⁴ As set out in the National Grid Electricity System Operator Limited Special Conditions and certain of the Electricity Transmission Standard Licence Conditions.

²⁵ The six corporate groups are: Electricity North West Limited; Northern Powergrid; Scottish and Southern Energy; Scottish Power Energy Networks; UK Power Networks; and WPD.

²⁶ For example, the IDNO licence does not contain all of the conditions of a DNO licence and the form of price control is different. FMN, paragraph 11.14. There are currently 13 licensed IDNOs in Great Britain. See <https://www.ofgem.gov.uk/electricity/distribution-networks/connections-and-competition/independent-distribution-network-operators>

²⁷ Offers must be made as soon as reasonably practical and in any event within a statutory long-stop date, other than in limited circumstances in which network operators are not obliged to offer connections (eg, where the applicant does not agree to be bound by applicable codes). FMN, paragraphs 28.5 and 28.6.

²⁸ As for connection charges, NGET follows the Connection and Use of System Code (**CUSC**), in particular section 14 which sets out the Connection Charging Methodology (which is underpinned by the relevant licence condition, which is licence condition C6 in the Transmission Licence Standard Conditions). DNOs, including WPD, are required to follow the Common Connections Charging Methodologies (**CCCM**) set out in the Schedule 22 of the Distribution Connection and Use of System Agreement (**DCUSA**). FMN, paragraphs 28.10-28.12, and Ofgem submission to the CMA dated 2 July 2021, paragraph 18.

adopting licensee in the future.²⁹ New connection works, can be classified either as **contestable**, which are works that can be undertaken by the network owner or customer (or any suitable contractor, such as a subcontractor of the customer or, in the case of distribution connections, by an accredited independent connections provider (**ICP**) or IDNO), or **non-contestable**, which are works that can only be undertaken by the network owner.³⁰

Engineering and consultancy services for the electricity sector

43. In addition to contestable new connection works to deliver a connection to electricity networks, the Parties provide other electrical engineering and consultancy services (**ECS**) to third parties on a competitive basis, including ongoing asset maintenance services and consultancy services.

Metering services

44. Both Parties also provide certain types of electricity and gas metering services.
45. Metering services fall into one of three categories:³¹
- (a) MAP services, under which suppliers purchase meters from meter manufacturers and rent them to retail energy suppliers, typically over a 10 to 15 year period.
 - (b) MAM/MOP services, under which suppliers provide meter installation and maintenance services.
 - (c) Physical meter reading and data collection/aggregation (**MDC**) services.
46. Traditional gas and electricity meters are currently being phased out and replaced by smart meters, with the market-wide rollout of smart meters intended to be completed by mid-2025.³² As of December 2020, traditional

²⁹ FMN, paragraph 25.8. Adoption of assets can only be undertaken by the licensed network owner.

³⁰ Non-contestable works can normally only be undertaken by the relevant licensed network owner due to the sensitivity and potential impact of the works on the network. In relation to distribution connections, in some circumstances, some elements of non-contestable works may be permitted to be carried out by IDNOs/ICPs in agreement with the relevant DNO. FMN, paragraphs 25.9 and 25.10.

³¹ For further details, see [ME/50767/19, Calvin Capital UK Holdings Ltd / BV Holdings Ltd](#), paragraphs 32-39.

³² See Smart Meter Rollout: Open letter on Energy Suppliers' Delivery of the Rollout and Regulatory Obligations, Ofgem, 30 March 2021.

meters made up around 58% of all domestic meters operated by retail energy suppliers in Great Britain.³³

Counterfactual

47. The CMA assesses the prospects for competition with the merger against the competitive situation without the merger (ie the counterfactual).³⁴ For completed mergers the counterfactual may consist of the pre-merger conditions of competition, or conditions of competition that involve stronger or weaker competition between the merger firms than under the pre-merger conditions of competition.³⁵
48. The CMA's assessment of the counterfactual will often focus on significant changes affecting competition between the merger firms, such as entry into new markets in competition with each other.³⁶ The CMA is also likely to focus only on significant changes where there are reasons to believe that those changes would make a material difference to its competitive assessment.³⁷ The counterfactual is not intended to be a detailed description of the conditions of competition that would prevail absent the merger. Those conditions are better considered in the competitive assessment.³⁸

Parties' submissions

49. The Parties submitted that the relevant counterfactual is not the pre-Merger conditions of competition but instead one which will continue to evolve over time in a manner that is difficult to predict with precision, but will involve the following elements:
- (a) as the transition to net zero progresses, there will be an increase in both supply and demand for electricity on both the transmission and distribution networks, leading to growing constraints on both networks;
 - (b) there will therefore be a material increase in the Parties' need for flexibility³⁹ services, and WPD and all other DNOs will need to cooperate with NGESO

³³ See [Smart meters in Great Britain, quarterly update December 2020: statistical bulletin](#).

³⁴ [Merger assessment guidelines \(CMA129\) – 2021 revised guidance \(Merger Assessment Guidelines\)](#), paragraph 3.1.

³⁵ [Merger Assessment Guidelines](#), paragraph 3.2.

³⁶ [Merger Assessment Guidelines](#), paragraph 3.8.

³⁷ [Merger Assessment Guidelines](#), paragraph 3.9.

³⁸ [Merger Assessment Guidelines](#), paragraph 3.7.

³⁹ Electricity networks require generation and consumption to be balanced in real time. While historically 'balancing' and ancillary services were procured at the transmission level only, the growth of renewable

in their procurement of these services to ensure the most efficient and economical result for the electricity system as a whole; and

- (c) the transition to distribution system operation (**DSO**) will progress and ultimately be delivered, albeit there is material uncertainty as to the implementation, timing and outcome of that transition.⁴⁰ DSO functions are a response to the effects of decarbonisation, digitalisation and decentralisation in the energy system and will involve more active management of the distribution network.⁴¹

CMA assessment

50. Third party evidence generally supported the Parties' submissions that the sector is undergoing significant changes as a result of the transition to net zero.
51. Although the CMA found that the electricity sector is undergoing significant change, the CMA considers that the expected changes will not change the fact that the Parties and other network owners are heavily regulated as regards the supply of non-contestable new connections (limiting any scope for competition between the Parties for the supply of those services) or the extent to which the Parties currently compete with each other for services that are provided on a competitive basis (eg contestable new connection works, ECS and metering services). Accordingly, the CMA does not consider that these changes would have a significant effect on competition between the Parties absent the Merger and, therefore, the outcome of its competitive assessment. The CMA therefore believes the pre-Merger conditions of competition to be the relevant counterfactual. The CMA considered the effect of industry

generation, in particular smaller scale renewable generation connecting to the distribution network, has led to DNOs requiring similar services (FMN, paragraph 18.8). In its recent *Review of GB energy system operation* report to the UK government published on 25 January 2021 ([Review of GB energy system operation \(ofgem.gov.uk\)](https://www.ofgem.gov.uk/review-of-gb-energy-system-operation)) Ofgem defined 'flexibility' as 'the modification of energy generation and/or consumption patterns in response to a signal (such as a change in price) to provide a service within the energy system'. For example, NGESO procures reserve services to access sources of extra power (provided by generators, electricity storage providers and demand side consumers, including via aggregators) to balance discrepancies between forecast and actual demand on the NETS (FMN, paragraph 18.7). WPD procures similar services to manage capacity constraints on its network (FMN, paragraph 18.10). In its Review of GB energy system operation, Ofgem identified low carbon flexibility as a key component of a net zero system, such that existing market arrangements may need to evolve and innovate to enable a flexible but resilient resource mix and support efficient system balancing.

⁴⁰ Ofgem describes DSO as 'a set of functions and services that need to happen to run a smart electricity distribution network' which 'does not focus on a single party as operator but recognises roles for a range of parties to deliver DSO.' Ofgem, Position paper on Distribution System Operation: our approach and regulatory priorities, 6 August 2019 available at https://www.ofgem.gov.uk/system/files/docs/2019/08/position_paper_on_distribution_system_operation.pdf, page 4. Ofgem's submission to the CMA dated 2 July 2021, paragraph 11.

⁴¹ *Ibid*, page 4.

developments on conditions of competition more generally where relevant in its competitive assessment.

Competitive assessment

Frame of reference

52. Market definition is an analytical tool that forms part of the analysis of the competitive effects of the merger and should not be viewed as a separate exercise from the competitive assessment.⁴² It involves identifying the most significant competitive alternatives available to customers of the merger firms and includes the sources of competition to the merger firms that are the immediate determinants of the effects of the merger.⁴³
53. While market definition can be an important part of the overall merger assessment process, the CMA's experience is that in most mergers, the evidence gathered as part of the competitive assessment, which will assess the potentially significant constraints on the merger firms' behaviour, captures the competitive dynamics more fully than formal market definition.⁴⁴ There may be no need for the CMA's assessment of competitive effects to be based on a highly specific description of any particular market definition (including, for example, descriptions of the precise boundaries of the relevant markets and bright-line determinations of whether particular products or services fall within the relevant market).⁴⁵
54. The CMA has identified the following potential overlaps between the Parties' activities:
- (a) The supply of new connections to electricity networks. As both Parties are monopoly suppliers of connections to their own networks, an overlap only arises if connections to the transmission and the distribution networks are substitutes from the perspective of customers;
 - (b) The supply of works to deliver a connection to the electricity network which are not monopoly activities (ie **contestable new connection works**);
 - (c) The supply of engineering and consultancy services; and
 - (d) The supply of metering (MAP and MAM/MOP) services.

⁴² [Merger Assessment Guidelines](#), paragraph 9.1.

⁴³ [Merger Assessment Guidelines](#), paragraph 9.2.

⁴⁴ [Merger Assessment Guidelines](#), paragraph 9.2.

⁴⁵ [Merger Assessment Guidelines](#), paragraph 9.5.

55. There is also a vertical relationship between NG and WPD as electricity is transported through NGET's transmission network to all DNOs in England and Wales through grid supply points and NGEN is the ESO in Great Britain. NG also carries out infrastructure works such as reinforcement and maintenance works in DNOs' areas, which affects their ability to provide new connections.

Product scope

New connections to electricity networks

- *Parties' submissions*

56. The Parties submitted that connections to the transmission network constitute a separate frame of reference from connections to the distribution network.⁴⁶ On this basis, the Parties submitted that there is no overlap between the Parties, as NG is active in the provision of connections to its transmission network only and WPD is active in the provision of connections to its distribution network only.
57. The Parties submitted that there is no supply side substitutability between connections to the transmission and distribution networks for the following reasons:
- (a) The licensing regimes for the ownership and operation of each category of network (including the provision of new connections) are distinct, such that a licence to own and operate a transmission network does not permit the licensee to own or operate a distribution network.⁴⁷
 - (b) Transmission and distribution networks operate at different voltages. DNOs cannot provide connections at 'transmission' voltages (275kV and 400kV in England and Wales). In limited circumstances only, NGET may be able to provide connections at 'distribution' voltages through connection: (i) to tertiary windings at 33kV or lower on existing transformers⁴⁸ (ii) to newly installed transformers that can accommodate 33kV connections⁴⁹ and (iii) at grid supply points where NGET owns existing assets suitable for connection at 132kV and below.⁵⁰

⁴⁶ FMN, paragraph 26.10.

⁴⁷ FMN, paragraph 26.11.

⁴⁸ FMN, paragraphs 26.17.1 and 31.1.

⁴⁹ Not all transformers have tertiary windings and it is not technically possible to retro-fit a tertiary winding to an existing transformer 'on demand'. [REDACTED]. FMN, paragraphs 26.17.2 (plus accompanying footnote 331) and 31.8.

⁵⁰ FMN, paragraph 26.17.3.

- (c) There are differences in the skills and expertise required to provide connections to each of the transmission and distribution network respectively; for example, connections in respect of 275kV and 400kV assets require additional skills and certifications which holders of distribution licences would not possess in the ordinary course.⁵¹
58. Accordingly, the Parties submitted that there can be no supply-side substitution between the ownership and operation of transmission infrastructure and that of distribution infrastructure, and thus there can be no supply-side substitution in the provision of connections to either of them.⁵²
59. The Parties also submitted that there is limited demand side substitutability between connections to the two networks due to the following factors:
- (a) Technological considerations: including the voltage at which electricity is transported as well as voltage waveform quality, the ability to accommodate flicker and harmonic distortions in the system, and network fault level/capability.
 - (b) The cost of connection: transmission connections entail, in general, considerably greater fixed costs in order to construct the connection and for the connection equipment. The Parties acknowledged, however, that there may be opportunities to connect to the transmission network at lower cost in the circumstances where 'distribution' voltage connections are available, as described in paragraph 57(b).
 - (c) Reliability and resilience: reliability and resilience is often a differentiator for certain large demand users (eg steel works) and customers with extreme reliability requirements (eg data centres) that will prefer the greater reliability and stability of the transmission network.
 - (d) Lead time: transmission connections typically require more significant or complex works and, accordingly, the overall time for completion of a typical connection is longer than for a typical distribution connection.⁵³
60. The Parties submitted that these factors mean that, in general, it will be uneconomic or inefficient for customers with larger capacity requirements (eg generators with a capacity of several hundred megawatt (**MW**)) to connect to the distribution network even at 132kV (ie the highest voltage at which connection to the distribution network is possible) and for customers with

⁵¹ FMN, paragraph 26.13.

⁵² FMN, paragraph 26.14.

⁵³ FMN, paragraphs 26.16 and 26.17.

smaller capacity requirements (eg generators with a capacity of less than 30MW) to connect to the transmission network. The Parties submitted that those customers that may have choice between connecting to the transmission or distribution network, would likely require a connection to the distribution network at 132kV (ie the highest voltage at which connection to the distribution network is feasible) should a connection to the distribution network be chosen.⁵⁴

- *CMA assessment*

61. In determining the relevant frame of reference, the CMA will primarily consider the degree to which two products are substitutable from the perspective of customers (ie demand side substitution).⁵⁵ If in response to a small price increase (or degradation of other elements of the offering) a customer would switch from purchasing one product to another, they are likely to be in the same market.⁵⁶ Although demand side responses will generally determine the boundaries of the relevant market, there are circumstances where the CMA may aggregate several narrow relevant markets into one broader market based on considerations about the response of suppliers to changes in prices.⁵⁷
62. In assessing the relevant frame of reference the CMA has first considered the degree to which the transmission network and the distribution network are able to supply connections at the same voltage. As, all other things being equal, if two different networks are able to offer the same voltage to a customer they are more likely to be in the same frame of reference. Secondly, the CMA has considered the degree to which customers may be able, or willing, to choose between connecting to the transmission network and distribution network.

Overlap in the connection voltages supplied by transmission and distribution networks

63. As discussed in paragraph 57(b), WPD cannot provide connections at 275kV or 400kV. NGET can only provide connections at 132kV or lower in limited

⁵⁴ FMN, paragraph 27.

⁵⁵ [Merger Assessment Guidelines](#), paragraphs 9.7 and 9.8.

⁵⁶ [Merger Assessment Guidelines](#), paragraph 9.7.

⁵⁷ [Merger Assessment Guidelines](#), paragraph 9.8 states that the CMA may aggregate markets where: firms routinely use their existing production assets to supply a range of different products that are not demand-side substitutes and there is evidence that firms in practice shift their existing capacity between these different products depending on demand for each; and the same firms compete to supply these different products and the conditions of competition between the firms are the same for each product; in this case aggregating the supply of these products and analysing them as one market does not affect the CMA's decision on the competitive effects of the merger.

circumstances. With respect to the number of such connections available in WPD's licensed geographic area:

- (a) NGET has issued [X] offers for connections to tertiary windings on existing transformers in WPD's licensed geographic area. NGET has plans to install or update a further eight transformers with tertiary windings in WPD's licensed geographic area during the RIIO-T2 price control period (April 2021 to March 2026).⁵⁸
- (b) NGET can also accommodate connections at 33kV to newly installed transformers, although currently it does not offer any of such connections in WPD's geographic area. NGET has plans to offer such connection at [X] in WPD's licensed geographic area in the future.⁵⁹
- (c) NGET owns assets suitable for connection at 132kV or below at 19 of the 51 grid supply points that connect WPD's network to NGET's transmission network. Whether or not there is capacity available for connection to such assets would need to be assessed on a case by case basis and would depend on the requirements of the connecting customer.⁶⁰

64. In comparison, WPD made 163,631 new connections with voltage equal or lower than 132kV to its network in the period between April 2019 and March 2021.⁶¹

65. Therefore, the CMA considers that the circumstances in which the Parties are able to offer new connections at the same voltage are limited. However, there is some scope for this to occur.

Customers that may have a choice between connecting to the transmission network or the distribution network

66. The CMA has gathered evidence on the degree of demand side substitutability between the transmission and the distribution network. As discussed in paragraphs 63-65, there are only a limited number of instances

⁵⁸ FMN paragraph 26.17.2 and the Parties' emails dated 30 July 2021 and 18 August 2021. As noted in footnote 52, not all transformers have tertiary windings and it is not technically possible to retro-fit a tertiary winding to an existing transformer 'on demand'. NG submitted that the number of connection offers made reflects the total number of tertiary windings connections on existing transformers that NG has identified to date (being those windings that NG, following an internal assessment, identified as those as 'high' confidence with respect to suitability of connection). NGET is engaged in an on-going exercise of improving its asset data, which may result in further tertiary windings on existing transformers (previously assessed as being 'low' or 'medium' confidence of suitability for connection) being identified as suitable for connection. FMN, paragraphs 31.3, 31.4 and 31.9.

⁵⁹ NG is also considering whether to offer connection at [X] in WPD's licensed geographic area in the future. FMN, paragraph 26.17.2.

⁶⁰ FMN, paragraph 26.17.3.

⁶¹ FMN, table 26.2.

where the connection voltages offered by the transmission and distribution network overlap. As such, the evidence collected by the CMA covers both instances where customers would have to choose between connecting to the transmission network at a voltage above 132kV and the distribution network at 132kV or below, and the small number of instances where they could connect at the same voltage to both networks.

67. The evidence available to the CMA suggests that there is limited demand side substitutability between connections to the two types of network. DNOs and customers indicated that the vast majority of customers will connect to the distribution network.
68. In particular, evidence from third parties indicates that the factors identified by the Parties mean that, for many customers, connecting to the transmission network or to the distribution network will not be viable alternatives. Specifically:

(a) Technological considerations and cost:

- (i) One DNO explained that as voltage levels increase so does technical complexity, the size of the equipment required and, therefore, installation costs. Several customers submitted that, in general, transmission asset costs are higher than distribution asset costs.⁶²
- (ii) Third parties indicated that a connectee's capacity requirement (and associated costs of connecting to the transmission or distribution network) will limit the circumstances in which connection to either network may be viable alternatives. One DNO submitted that, as an approximate range, connections to the transmission or distribution network may be feasible for projects with a capacity of between 50MW-100MW.⁶³ Some customers indicated that a transmission connection is cost-effective only for projects which require high

⁶² [REDACTED] DNOs also stated that, on a like for like basis, transmission asset costs are higher than distribution asset costs but that the costs borne by the connectee may be impacted by differences in the charging methodologies applicable to transmission and distribution connections. DNOs noted that Ofgem's recently published consultation on proposals relating to its Access and Forward-Looking Charges Significant Code Review (the **Access SCR**), proposes changes to charges for connection to the distribution network and use of the transmission network for certain customers which, if implemented, may impact the relative costs of connecting to the transmission or distribution network for those customers. See Ofgem consultation published in June 2021: [Access and Forward-looking Charges Significant Code Review - Consultation on Minded to Positions](#), which was identified by [REDACTED]. Several third parties submitted that in some circumstances, factors such as the distance from the customer's project to the point of connection in the network and need for reinforcement works may make a connection to a distribution network costlier than a transmission connection. [REDACTED].

⁶³ Another submitted that, while the chosen option is usually driven by scheme viability and would depend on the specific circumstances associated with each scheme, it is increasingly common for transmission connections to be chosen as an alternative to distribution connections, even for projects with a capacity of <50 MW.

capacity (of at least 50MW).⁶⁴ Ofgem submitted that it expects that a choice between connection to the transmission network or distribution network is more likely to be relevant for generators with a capacity less than 100MW.⁶⁵

(iii) These views are consistent with [REDACTED].⁶⁶ [REDACTED].⁶⁷

(b) Resilience: one DNO indicated that the greater resilience of the transmission network would mean that certain types of customers would only consider connecting to the transmission network (for example data centres).

(c) Lead time: A number of customers indicated that connections to the transmission network generally have longer lead times.

69. In practice for it to be possible to connect a particular project to a given network, the network needs to have sufficient capacity available at the relevant geographic location.⁶⁸

70. Additionally, since the distribution network is much more extensive than the transmission network, it will often be the case that the distribution network is closer to the customer's project (which will have a substantial effect on costs, timescales and feasibility).⁶⁹ This will reduce the number of instances in which the two networks are viable alternatives for any given project.

71. The CMA's investigation indicated that the circumstances in which a customer is likely to have a viable option of connecting to the transmission network or the distribution network are likely to be very limited:⁷⁰

⁶⁴ The CMA sought views from customers of the Parties that were identified as potentially having projects that could connect to both the transmission and distribution networks. The CMA received responses from 12 customers.

⁶⁵ Ofgem's response to the CMA's RFI dated 27 May 2021, submitted on 22 June 2021.

⁶⁶ [REDACTED].

⁶⁷ [REDACTED].

⁶⁸ DNOs said that a few projects (eg data centres) have some degree of locational flexibility, but that this is unusual.

⁶⁹ For example, WPD's distribution network, which covers only part of the distribution network in England and Wales, consists of 220,000 km of overhead lines and underground cables, while NGET's transmission network, which covers all of England and Wales, consists of approximately 9,000 km of overhead lines and underground cables. Source: <https://www.westernpower.co.uk/our-network/distribution-area-search> and <https://www.nationalgrid.com/uk/electricity-transmission/about-us/planning-together/our-riio2-business-plan-2021-2026/safe-and-reliable-network>.

⁷⁰ Following the expected changes in the demand and supply of electricity (see paragraphs 50 and 51), there may be an increase in the absolute number of customers who could have a choice between connecting to the transmission or the distribution networks. However, considering the factors highlighted in paragraph 68 to 70, the CMA expects that most customers would still find either the transmission or the distribution network, but not both, as suitable for their projects.

- (a) Two DNOs indicated that approximately 0.01% and 0.1% of their customers respectively could have the option to connect to the transmission network. Another DNO provided evidence that 2.6% of its connections (including on-going projects yet to connect) are for projects with capacity over 50MW (the likely minimum capacity at which a connection to the transmission network may be regarded as a viable alternative).⁷¹
- (b) WPD completed 163,631 new connections to its network in the period 1 April 2019 to 31 March 2021, 99.97% of which were connected at 11kV and below.⁷² There were only two 132kV connections to WPD's network in the financial year ending 31 March 2020 (the highest voltage connection available on the distribution network).⁷³
- (c) In the period 1 April 2019 to 31 March 2021, NGET completed only 14 new connections to its network, of which only two were connections for whom a distribution connection could, in principle, have been a viable alternative.⁷⁴
- (d) Neither Party is aware of any instance where it has been asked to provide an offer for a connection in circumstances where the other Party has also been asked to provide such an offer.⁷⁵

- *Conclusion*

72. As explained in paragraphs 67-70, due to technical and economic reasons, most customers would find either a transmission network or a distribution network a viable option for their projects.
73. However, the CMA found that there are some customers that may have a choice between connecting to the transmission or the distribution network depending on the specifics of the particular project.

⁷¹ [redacted].

⁷² FMN, paragraph 26.3 and Table 26.2.

⁷³ FMN, paragraphs 26.4.3 and 27(b). Ofgem considered that certain projects that may have an option to connect to either transmission or distribution network at different voltages are likely to be limited to those seeking to connect to the distribution network at approximately 132kV. Ofgem's submission to the CMA dated 2 July 2021, paragraph 19.

⁷⁴ FMN, paragraphs 25.2.4 and 28.26- 28.31. Of the 14 new connections in this period, four were interconnector or DNO connections, for whom connection to the distribution network is not feasible. Five were generation connections at voltages of 275kV or 400kV with a capacity ranging from 285 MW to 824 MW (ie a level at which a distribution network connection is unlikely to be a cost-effective alternative). Three were Network Rail demand connections, with technical and resiliency requirements such that NG did not consider that a distribution network connection would have been a feasible alternative. Of the remaining two: one was a generation connection with capacity of 13MW for a project located on land adjacent to the relevant NGET substation, in circumstances where the nearest distribution network substation was a material distance from the site; the other was a 33kV tertiary generation connection, with total capacity of 49.9MW (for whom a connection to the distribution could, in principle, have been a feasible alternative from a technical/cost perspective).

⁷⁵ FMN, paragraph 28.25.

74. Accordingly, the CMA has assessed the impact of the Merger by reference both to separate markets for transmission and distribution network connections and a broader frame of reference that includes connections to both networks (ie transmission and distribution). However, it was not necessary for the CMA to reach a conclusion on the frame of reference, since, as set out below, no competition concerns arise on any plausible basis.

Contestable new connection works and ECS

- *Parties' submissions*

Segmentation by type of service

75. The Parties submitted that there is a distinct product market for the supply of ECS, which is separate from electrical installation services (including contestable new connection works).⁷⁶
76. In relation to ECS, the Parties submitted that no further segmentation by service type is required (for example, between asset maintenance and repair services and consultancy services) in view of the supply-side substitution between different forms of ECS (with both NG ECS and WPD ECS, as well as their competitors, are active across a range of service types).⁷⁷
77. In relation to electrical installation services, as the only overlap in the types of installation services offered by the Parties is in contestable new connection works, the Parties adopted a separate frame of reference covering the supply of contestable new connection works (excluding on-going maintenance and repair). The Parties submitted that this approach is consistent with the way that they provide contestable new connection works (which they carry out separately from ECS).⁷⁸

Segmentation by asset voltage

Contestable new connection works

⁷⁶ FMN, paragraph 41.

⁷⁷ FMN, paragraph 41.

⁷⁸ FMN, paragraph 26.56. NG's activities in respect of installation services are limited to contestable new connection works, provided by NGET under the NGET brand; WPD's installation works other than contestable new connection works (which are provided by WPD on a passive basis, in accordance with its DNO licence obligations) are carried out by WPD ECS; and the Parties offer other ECS services separately from their contestable new connection works (WPD through WPD ECS, and NG (NGET) through the NG ECS brand). FMN, paragraphs paragraphs 5(d) and 61.5.

78. The Parties submitted that the supply of contestable new connection works should be delineated by asset voltage, because contestable transmission connection works and contestable distribution connection works are not substitutable from:
- (a) a demand-side perspective, as these works are only required once a connection type (ie to the transmission network or distribution network) has been chosen;⁷⁹ and
 - (b) a supply-side perspective, because the provision of contestable transmission connection works, involving assets at ‘transmission’ voltages (400kV and 275kV) requires distinct certifications, expertise, tools and equipment which providers of contestable works for distribution connections (DNOs, IDNOs and ICPs) would not have without significant additional investment.⁸⁰ The Parties noted that competitors providing contestable works for transmission connections would likely be capable of carrying out works at ‘distribution’ voltages for both transmission and distribution connections.⁸¹

ECS

79. Regarding the supply of ECS, the Parties submitted that it is appropriate to sub-divide the relevant product markets by asset voltage, specifically by reference to ‘transmission’ voltage (400kV and 275kV) and ‘distribution’ voltage (132kV and below) assets because distribution and transmission voltage assets require different certifications, expertise, tools and equipment due to the different technical characteristics of each network.⁸²
80. As an exception to this, the Parties noted that certain ECS services supplied by NG (which comprise consultancy and policy support services and the provision of NGET staff to deliver to training courses to customer delegates⁸³) are by nature not provided at a particular asset voltage or in respect of assets of a particular voltage.⁸⁴ WPD does not provide such services.⁸⁵

⁷⁹ FMN, paragraph 26.59.

⁸⁰ FMN, paragraph 26.60. Where the provision of contestable transmission connection works and contestable distribution connection works are in respect of assets of the same voltage, the Parties submitted that these supply-side differences do not apply. Notwithstanding this, the Parties submitted that a degree of supply-side substitutability in respect of contestable works for new transmission connections at voltages of 132kV or lower is not by itself sufficient for contestable works for transmission connections and contestable works for distribution connections to constitute a single product frame of reference. FMN 26.61 and 26.64.

⁸¹ FMN, paragraph 26.63.

⁸² FMN, paragraph 62.12.

⁸³ On the basis of services provided since 1 January 2019. FMN, paragraph 61.8.

⁸⁴ FMN, paragraph 61.8.4. Such services account for approximately [X]% of NG ECS's annual revenue. All other NG ECS services are asset maintenance services. FMN, paragraph 61.8.

⁸⁵ See footnote 88. FMN, paragraph 61.8.5.

- *CMA assessment*

Segmentation by type of service

81. In previous cases, the CMA has found it appropriate (whilst not needing to conclude definitively given the absence of competition concerns) to both adopt a single frame of reference that includes the supply of contestable new connection works, installation and maintenance/repairs services⁸⁶ and to adopt two separate frames of reference for the supply of electrical installation services and engineering consultancy services.⁸⁷
82. From a demand side perspective, there is no substitutability between the different types of service. The CMA received limited evidence regarding the extent of supply side substitutability during its investigation. However, it was not necessary for the CMA to reach a conclusion on whether the relevant market should be segmented by type of service, since for the reasons set out below no competition concerns arise on any plausible basis.
83. As the Parties' activities only potentially overlap in relation to contestable new connection works and asset maintenance services within ECS,⁸⁸ on a cautious basis, the CMA assessed the Merger on the basis of separate frames of reference for contestable new connection works and asset maintenance services.

Segmentation by asset voltage

84. In *ESBNI/NIE*, the CMA left open the question of whether it was necessary to divide electrical installation services or other types of engineering services by asset voltage.⁸⁹
85. Ofgem submitted that the assets involved, skills, competencies and certifications needed for supplying contestable connection works for

⁸⁶ On the basis that there is scope for supply-side substitution since the know-how, certifications, and specialised staff required are very similar between them. ME/3582/08 *Anticipated acquisition by E.ON UK plc of the public lighting business of ABB Holdings Limited and ABB Limited (E.ON/ABB Holdings)*, paragraphs 9-10.

⁸⁷ On the basis of third party views. ME/4628/10, *ESBNI Ltd of NIE plc / NIE Powerteam and PES (ESBNI/NIE)*, paragraph 33. The European Commission has also previously considered (whilst not needing to conclude definitively given the absence of competition concerns) that the provision of on-going maintenance of electrical installations forms a distinct product market from the installation itself, based on third party views on the specific know-how required. Case No COMP/M.6623 *Vinci/EVT*, paragraph 7-12.

⁸⁸ NGET (through the NG ECS brand) provides asset maintenance services only to assets that are connected to its own network. WPD (through WPD ECS) supplies asset maintenance services to customers (including customers not connected to its own network). In relation to other ECS, WPD ECS provides installation services other than for the purpose of delivering a connection to a regulated electricity network, while NG does not provide such installation services. In addition to asset maintenance services, NG ECS activities comprise consultancy and policy support services and provision of NGET staff to deliver training courses to customer delegates. WPD does not provide such services. FMN, paragraphs 61.5, 61.15 and 61.16. See also paragraphs 80, 146 and 147.

⁸⁹ ME/4628/10, *ESBNI Ltd of NIE plc / NIE Powerteam and PES (ESBNI/NIE)*.

connections to the transmission network and distribution network respectively are different.⁹⁰ Similarly, Ofgem submitted that the skills and equipment required to offer ongoing asset maintenance services in respect of assets connected to the transmission network and distribution network respectively are different.⁹¹

86. Consistent with Ofgem's submission, one third party indicated that the technical requirements for supplying contestable new connection works to the transmission and distribution networks are different and that, whilst it is possible for those supplying services at 'transmission' voltages (275kV or 400kV) to operate at lower voltages, the scale of these business would mean that they are more likely to operate at 132kV rather than lower voltages. The same third party indicated, for maintenance services, that the main barriers to expanding into higher voltage tiers are technical expertise and the cost of testing equipment.
87. In light of the above, the CMA considers that it may be appropriate to segment each of contestable new connection works and asset maintenance services by reference to asset voltage. As WPD only provides such services for connections and assets at 'distribution' voltages (132kV or lower),⁹² on a cautious basis, the CMA assessed the impact of the Merger with reference to a frame of reference for each of (i) contestable new connection works for distribution asset voltages and (ii) asset maintenance works for distribution asset voltages. However the CMA did not have to conclude on the exact product frame of reference since no competition concerns arise on any plausible basis.

Metering services

88. The Parties submitted that MAP, MAM/MOP and MDC services constitute separate frames of reference and that it can be left open whether these should be further segmented into services for (i) gas and electricity meters and (ii) meters for domestic and I&C premises.⁹³ Due to the smart meter rollout, the Parties submitted that there is no longer any distinct market for MAP services in respect of traditional meters.⁹⁴

⁹⁰ Ofgem's response to the CMA's RFI dated 27 May 2021, submitted on 22 June 2021.

⁹¹ Ofgem's response to the CMA's RFI dated 27 May 2021, submitted on 22 June 2021.

⁹² See paragraph 63.

⁹³ FMN, paragraphs 50.9, 50.16 and 50.39.

⁹⁴ FMN, paragraph 50.22. In relation to MAM/MOP services, the Parties submitted that whilst there are certain requirements specific to MAM/MOP services for smart meters, it is not uncommon for MAM/MOP providers to have capabilities in respect of both traditional and smart meter services (FMN, paragraph 50.20.2).

- *CMA assessment*

Supply of MAP, MAM/MOP and MDC services

89. In *Calvin Capital/BV Holdings*, the CMA identified separate frames of reference for each of MAP, MAM/MOP, and MDC services on the basis that:⁹⁵
- (a) MAP, MAM/MOP, and MDC services are generally distinct from a demand-side perspective, albeit there is a preference among some energy suppliers to purchase MAP and MAM/MOP services (but not MDC services) as a bundled service;
 - (b) the suppliers of MAP and MAM/MOP services are largely different, and third party sources indicated that the resources and technical capability needed to supply each service is different; and
 - (c) switching between or using the capacity of MDC for MAM/MOP services (and vice versa) might be difficult as MAM/MOP services require technically trained staff whereas MDC workers do not require such technical skills.
90. The CMA has not received any evidence to suggest that the conclusion reached in *Calvin Capital/BV Holdings* is no longer appropriate. The CMA has therefore assessed the impact of the Merger with reference to separate frames of reference for each of the supply of MAP, MAM/MOP and MDC services.
91. The Parties submitted that there is no overlap between the Parties in relation MDC services as WPD does not provide these services.⁹⁶ Therefore, MDC services are not considered further in this Decision.

Further segmentation of MAP and MAM/MOP services

92. The CMA has also considered whether MAP and MAM/MOP services should be further segmented, either by type of fuel (gas and electricity), type of meter (traditional and smart), or by type of end-customer premises (domestic and I&C).
93. In *Calvin Capital/BV Holdings*, the CMA found that evidence on the supply side was mixed and for that reason took a cautious approach in assessing the transaction on the basis of separate markets for services supplied for gas

⁹⁵ ME/50767/19, *Anticipated acquisition by Calvin Capital UK Holdings Ltd of BV Holdings Ltd (Calvin Capital/BV Holdings)*, paragraph 45.

⁹⁶ FMN, paragraph 50.4.

meters and services supplied for electricity meters, further segmented by whether the meter was traditional or smart.⁹⁷

94. With respect to gas and electricity meters, and smart and traditional meters, the CMA has found that:
- (a) NG's internal documents suggest that NG distinguishes between gas and electricity meter services, and between smart and traditional metering services.⁹⁸
 - (b) the suppliers of gas and electricity meter services are largely the same, with all of the competitors that responded to the CMA's investigation stating that they supply both gas and electricity meter services.
 - (c) Ofgem considered that supply of traditional meters will have less significance as the smart-meter rollout progresses.⁹⁹ Competitors indicated that phasing out of traditional meters in favour of smart meters means that there are no business opportunities/appetite remaining to expand the supply of traditional meter services.
95. In *Macquarie/Utility Metering*, the CMA found that electricity meters for I&C premises were typically different in capabilities and price to domestic electricity meters, but that the same companies could provide MAP services for meters used in domestic or I&C premises.¹⁰⁰
96. With respect to meters for domestic premises and meters for I&C premises:
- (a) NG's internal documents suggest NG distinguishes between domestic and I&C premises meter services.¹⁰¹
 - (b) The CMA received mixed evidence from competitors, with some competitors indicating that they supply meters for both domestic and I&C premises, whilst others only supply one or the other. The CMA notes that shares of supply differ across the two segments suggesting that conditions of supply may be different (see Table 1).

⁹⁷ ME/50767/19, *Anticipated acquisition by Calvin Capital UK Holdings Ltd of BV Holdings Ltd (Calvin Capital/BV Holdings)*, paragraph 46. In *Calvin Capital/BV Holdings*, the CMA did not consider whether it is appropriate to further segment MAP, MAM/MOP and MDC services by type of customer (ie domestic and I&C).

⁹⁸ See for example [REDACTED]. WPD submitted that WPD does not hold any internal documents in respect of metering services in response to Question 10 of the CMA's [Merger Notice Template](#).

⁹⁹ Ofgem's response to the CMA's RFI dated 27 May 2021, submitted on 22 June 2021.

¹⁰⁰ ME/5260/11, *Completed acquisition by Macquarie Bank Limited (London branch) of Utility Metering Services Limited (Macquarie/Utility Metering)*, paragraphs 40-44.

¹⁰¹ See for example [REDACTED]. WPD submitted that WPD does not hold any internal documents in respect of metering services in response to Question 10 of the CMA's [Merger Notice Template](#).

(c) Ofgem indicated that that it views meters for domestic and I&C premises to be sufficiently independent of each other.¹⁰²

97. However, it was not necessary for the CMA to reach a conclusion on any further segmentation of MAP and MAM/MOP services in this case, since, as set out below, no competition concerns arise on any plausible basis.

Geographic scope

The supply of new connections to electricity networks

98. As explained in paragraph 35, the licensed owners of the transmission and the distribution networks are required (subject to very limited exceptions) by regulatory obligations to offer new connection services to any customer that requests them.

99. In Great Britain, there are three licensed TOs covering different geographic areas: NGET covers England and Wales, Scottish Power Transmission Limited (**SPTL**) covers Southern Scotland and Scottish Hydro Electric Transmission plc (**SHET**) covers Northern Scotland and the Scottish Isles. There is no geographic overlap between the licensed geographic areas of NGET, SPTL and SHET.

100. As for the distribution network, there are 14 non-overlapping licensed geographic areas in Great Britain, which are currently owned by six different corporate groups.¹⁰³

101. As explained in paragraph 73, given that the transmission and the distribution networks are alternatives for at least some customers, the CMA has considered the appropriate geographic frames of reference by reference both to separate product frames of reference for transmission and distribution network connections and a broader product frame of reference that includes connections to both networks (ie transmission and distribution). With respect to transmission network connections, there was no need for the CMA to consider the appropriate geographic frame of reference as the Parties activities do not overlap in this segment, nor is it relevant to an assessment of vertical effects arising from the Merger.

¹⁰² Ofgem's response to the CMA's RFI dated 27 May 2021, submitted on 22 June 2021.

¹⁰³ See footnote 25.

- *Customers who can only connect to the distribution network*

102. The Parties submitted that there is no supply or demand side substitutability between different DNOs as they are natural monopolies and cover different licensed geographic areas. On this basis, the Parties submitted that each distribution network constitutes a separate frame of reference determined by its licensed geographic area.¹⁰⁴ Nonetheless, the Parties submitted that customers whose premises are located at or near the border between different DNOs' licensed geographic areas may be able to connect to alternative DNOs.¹⁰⁵
103. The CMA identified two circumstances where customers may be able to connect to different DNOs: when customers' projects are located close to the boundary between two DNOs, or when customers that can choose the location of their projects. As for the latter, third parties indicated that this is unusual, but can be the case for some solar and wind generation customers, operators of EV charging facilities and data centres. In practice, even those customers that have some flexibility over where they locate a project will be limited by factors such as suitable topography and climate (for example, wind farms are more suited to coastal areas while solar farms are more suited to the southern regions of England), availability and cost of land, and planning permissions and the need for any other third party consents.
104. The CMA found that the circumstances in which a customer is likely to have a choice between different distribution networks are very limited. One DNO indicated that 0.25% of customers seeking a connection to its distribution network might have the option of connecting to another DNO's network, while another DNO said that the number is 'very small'.¹⁰⁶
105. The evidence above indicates that the vast majority of customers wishing to connect to a distribution network have no option with regards to which DNO to connect to, considering that (i) there is no overlap between the geographic areas covered by each DNO; and (ii) very few customers have flexibility over where they locate their projects or are located close to the boundary between two DNOs.

¹⁰⁴ FMN, paragraphs 14.3, 14.4 and 20.4.

¹⁰⁵ FMN, paragraph 26.69.2.

¹⁰⁶ This is consistent with information from customers received by the CMA. The CMA sought views from certain types of WPD's customers (solar and wind generation customers and operators of EV charging facilities), [§]. Two customers said they had projects that could connect to two different DNOs in the last five years. The number of projects mentioned was very small and represent a small proportion of the total number of connections they made in the same period.

106. However, given that different distribution networks are alternatives for at least some customers, for those customers seeking to connect to the distribution network, the CMA has assessed the Merger with reference to a geographic frame of reference for the supply of new connections to electricity distribution networks in Great Britain.

- *Customers who could connect to the distribution or transmission networks*

107. The Parties submitted that, when considering a new connection, customers may, in principle, choose from TOs, DNOs or IDNOs in Great Britain and, therefore, the appropriate geographic frame of reference for connections to transmission or distribution networks is Great Britain. Nevertheless, the Parties submitted that, for customers who could connect to the Parties' networks, the narrowest plausible geographic market would be no narrower than the licensed distribution area of the four WPD DNOs.¹⁰⁷

108. The CMA agrees with the Parties that the narrowest geographic frame of reference for those customers that could connect to the Parties' networks is the supply of new connections to electricity networks in WPD's licensed geographic area, given that this is the geographic area where they overlap. Therefore, on a cautious basis, for those customers that could connect to the transmission or the distribution networks, the CMA has assessed the impact of the Merger in the supply of new connections to electricity networks within WPD's licensed geographic area.

The supply of contestable new connection works for distribution asset voltages

109. The CMA has in previous cases considered the geographic frame of reference for contestable new connection works for connections to distribution networks to be Great Britain,¹⁰⁸ on the basis that:

- (a) the conditions for providing these services are homogenous throughout Great Britain;
- (b) the contestable element of connections work can be carried out by any service provider active in the country; and

¹⁰⁷ FMN, paragraph 26.71.

¹⁰⁸ See for example ME/5620/12, [Completed acquisition by Brookfield Infrastructure Partners LP of Inexus Group Limited](#), paragraph 47; ME/3582/08 [Anticipated acquisition by E.ON UK plc of the public lighting business of ABB Holdings Limited and ABB Limited](#), paragraphs 11-12.

(c) third parties generally indicated to the CMA that this was a national market and that contracts were generally awarded regardless of the location of the contractor.

110. The Parties submitted that these factors continue to prevail in respect of contestable works for transmission and distribution connections and, accordingly, the appropriate frame of reference for such services is Great Britain.¹⁰⁹
111. The CMA has not received any evidence to suggest that the conclusions reached in previous cases are no longer appropriate. As the Parties' activities potentially overlap only in WPD's licensed geographic area, on a cautious basis, the CMA assessed the impact of the Merger in the supply of contestable new connection works at distribution asset voltages in WPD's licensed geographic area. However the CMA did not have to conclude on the exact definition of the geographic frame of reference since no competition concerns arise on any plausible basis.

The supply of asset maintenance services for distribution assets voltages

112. The Parties submitted that in past cases, the CMA and the European Commission have generally considered the relevant geographic markets for the supply of ECS services to be at least national in scope, but have in most cases not been required to reach a definitive view on the geographic markets due to an absence of competition concerns, irrespective of the precise scope of the geographic market. On this basis, the Parties submitted that the geographic market for the supply of ECS is at least as wide as the UK and Ireland.¹¹⁰
113. The Parties do not consider that a narrower geographic segmentation, eg focussing only on the geographic areas in which WPD ECS is active, would be appropriate.¹¹¹ Considering asset maintenance services for distribution asset voltages specifically, the CMA has not received any evidence from third parties to suggest that an alternative geographic frame of reference is appropriate. As the Parties potentially overlap only in the supply of such services in and around WPD's licensed geographic area, on a cautious basis, the CMA assessed the impact of the Merger in the supply of asset maintenance services at distribution asset voltages in WPD's licensed geographic area. However the CMA did not have to conclude on the exact

¹⁰⁹ FMN, paragraph 26.73.

¹¹⁰ FMN, paragraph 62.24.

¹¹¹ FMN, paragraph 62.23.

definition of the geographic frame of reference since no competition concerns arise on any plausible basis.

The supply of MAP services and the supply of MAM/MOP services

114. In *Calvin Capital/BV Holdings*, the CMA considered the appropriate frame of reference for the supply of MAP services and the supply of MAM/MOP services to be Great Britain, on the basis that ‘the main energy suppliers have a national presence and procure metering services at national level’ and that ‘conditions of supply and demand do not vary across regions within Great Britain.’¹¹²
115. The Parties submitted that the CMA should follow this past decisional practice.¹¹³
116. The CMA has not received any evidence to suggest that the conclusion reached in *Calvin Capital/BV Holdings* is no longer appropriate.
117. Therefore the CMA believes that the appropriate geographic frame of reference for the supply of MAP services and the supply of MAM/MOP services is Great Britain.

Conclusion on frame of reference

118. For the reasons set out above, the CMA has considered the impact of the Merger in the following frames of reference (considering the product frames of reference where the Parties overlap):
 - (a) The supply of new distribution and transmission network connections within WPD’s licensed geographic area.
 - (b) The supply of new distribution network connections in Great Britain.
 - (c) The supply of contestable new connection works for distribution asset voltages in WPD’s licensed geographic area.
 - (d) The supply of asset maintenance services for distribution asset voltages in WPD’s licensed geographic area.

¹¹² ME/50767/19, *Anticipated acquisition by Calvin Capital UK Holdings Ltd of BV Holdings Ltd (Calvin Capital/BV Holdings)*, paragraph 63.

¹¹³ FMN, paragraph 50.42.

- (e) The supply of MAP services in Great Britain including all possible segmentations for (i) smart and traditional meters; (ii) gas and electricity meters and (iii) meters for domestic and I&C premises.
- (f) The supply of MAM/MOP services in Great Britain including all possible segmentations for (i) smart and traditional meters; (ii) gas and electricity meters and (iii) meters for domestic and I&C premises.

Assessment of theories of harm

119. The CMA considered the following theories of harm in respect of the Merger:

- (a) Horizontal unilateral effects in the supply of new connections to electricity networks within WPD's licenced geographic area.
- (b) Partial input foreclosure of electricity infrastructure to DNOs other than WPD in Great Britain.
- (c) Horizontal unilateral effects in the supply of contestable new connection works at distribution asset voltages and asset maintenance services at distribution asset voltages in WPD's licensed geographic area.
- (d) Horizontal unilateral effects in the supply of MAP services in Great Britain.
- (e) Horizontal unilateral effects in the supply of MAM/MOP services in Great Britain.

Horizontal unilateral effects in the supply of new connections to electricity networks within WPD's licensed geographic area

120. Horizontal unilateral effects may arise when one firm merges with a competitor that previously provided a competitive constraint, allowing the merged firm profitably to raise prices or to degrade non-price aspects of its competitive offering (such as quality, range, service and innovation) on its own and without needing to coordinate with its rivals.¹¹⁴ The CMA assessed whether it is or may be the case that the Merger has resulted, or may be expected to result, in an SLC in relation to horizontal unilateral effects in the supply of new connections to electricity networks.
121. Given that the Parties are regulated monopolies, the CMA assessed whether the Parties currently compete with each other to supply new connections to electricity networks. In assessing whether and to what extent the Parties

¹¹⁴ [Merger Assessment Guidelines](#), paragraph 4.1.

compete for customers, the CMA considered (i) the extent to which customers have the choice of connecting to the transmission or the distribution network in practice; (ii) for those customers that do have a choice, the factors that influence their decisions about which network to connect to for a particular project; and (iii) the extent to which the Parties can and do flex their offers having regard to the factors that influence customers' choice in order to encourage customers to connect to their network rather than the other Party's network.

122. As explained at paragraph 73, the CMA found that there are some customers that may have a choice between connecting to the transmission or the distribution network depending on the specifics of the particular project (for example, project capacity requirements, available connection voltage, the distance to both networks and whether there is available capacity on both networks).
123. In those cases where there may be a viable choice between the two networks, customers and DNOs indicated that the following factors would be most likely to influence the decision of which network to connect to: costs, timescales and capacity. A number of third parties also mentioned distance to the network, any need for third party consents, planning permission etc as these may in turn have a significant impact on the cost and lead time and potentially the feasibility of a connection to each of the two networks.
124. The CMA found that the Parties must provide connection offers whenever requested by a potential customer other than in exceptional circumstances (see paragraph 35) and have limited ability to flex their offers having regard to the factors that affect customer choice due to regulatory and technical factors:
 - (a) In terms of price, TOs and DNOs are required to follow a charging methodology that is approved by Ofgem when setting prices for new connections (see paragraph 41 and footnote 28). All of the DNOs that responded to the CMA's investigation indicated that the charging methodology gives them no leeway to adjust prices in order to attract customers. None of the DNOs that responded to the CMA's investigation said that they had engaged in price competition to attract a customer to connect to their network, rather than connect to the transmission network. Consistent with this, none of the customers that responded to the CMA's investigation said that they are able to negotiate prices with the Parties. Factors that can influence the relative costs of connections to both networks such as distance from the project to the connection point on the network, or whether network reinforcement is required are outside the control of the Parties. This indicates that, pre-Merger, there is no price competition between the Parties.

(b) In terms of other quality and service factors that customers may value, the evidence available to the CMA suggests that there is also no material competition between the Parties. In particular the CMA found that:

- (i) Both Parties are subject to licence conditions that set timescales for connection services (see paragraph 41). Transmission connection offers must be provided to customers within three months of receiving a request, while distribution connection offers must be provided within no more than 65 working days.¹¹⁵ DNOs are also subject to service standards requiring them to issue certain types of offer within significantly shorter periods in at least 90% of all cases.¹¹⁶ The CMA notes that one customer said that the only factor that they are able to negotiate with their supplier is the date of the connection, which nevertheless must be in accordance with the network's licence conditions.
- (ii) Other factors that may have a significant impact on timescales such as distance to the network and need for planning permission or third party consents are outside the Parties' control.
- (iii) As for capacity, the need for reinforcement works and curtailment, these are technical requirements that, either the network owner is able to meet, or not, depending on the project needs.

125. Additionally, Ofgem has some tools at its disposal to monitor whether customers receive good service consistent with network owners' regulatory obligations. For smaller connections customers, this includes customer satisfaction scores, time to quote and time to connect metrics. For larger connections customers, Ofgem has an annual process that informs it about perceptions on the level of service that DNOs provide and in respect of which Ofgem can issue penalties. Customers can also complain and appeal to Ofgem, for example if they consider that the pricing offer is not consistent with the applicable charging methodology, and Ofgem can take enforcement action in certain circumstances.¹¹⁷

¹¹⁵ FMN, paragraph 26.34.

¹¹⁶ For example, the period applicable to low voltage demand connections (demand connections where the highest voltage is not more than one kilovolt) is 15 working days and the period for extra high voltage demand connections (demand connections where the highest voltage is more than 22 kilovolts but not more than 72 kilovolts) and high voltage generation connections (generation connections where the highest voltage is more than one kilovolt but not more than 22 kilovolts) is 50 working days. FMN, paragraph 26.34 and Distribution Standard Licence Condition 15.2.

¹¹⁷ Ofgem submission to the CMA dated 2 July 2021, paragraph 21.

126. The Parties' limited ability to flex their offers is reflected in the evidence from customers and DNOs, none of whom considered that there is competition between the Parties:
- (a) None of the customers that responded to the CMA's investigation that had considered connecting to the transmission or distribution network for a particular project said that they had any scope to negotiate or influence any aspect of the offer with the network operator (including non-price elements), with the sole exception of the example noted at paragraph 124(b)(i) above.
 - (b) None of the DNOs that responded to the CMA's investigation said that they had engaged in any form of price or non-price based competition (such as quality, service or timescales) to attract a customer to connect to their network rather than connect to the transmission network.
127. The CMA has not identified any evidence of competition between the Parties for new connection customers in the Parties' internal documents assessed by the CMA. This is consistent with information provided by the Parties that they are not aware of any instance where they were both asked to provide a connection offer to a customer.¹¹⁸
128. For the reasons set out above, the CMA believes that although a small number of customers may in principle be able to choose between connecting to NGET or WPD's networks, the Parties have no material ability to flex the factors that affect customer choice. This is consistent with the fact that no customers or DNOs indicated that the Parties compete with each other in this way. Therefore, the CMA believes that the Parties do not currently compete with each other to win customers to any material degree. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral effects in the supply of new connections to electricity networks within WPD's licenced geographic area.

Partial input foreclosure of electricity infrastructure to DNOs other than WPD in Great Britain

129. Vertical mergers are those between firms active at different levels in the same industry (ie an upstream firm and a downstream firm), so competition in one market could be directly affected by outcomes in the other.¹¹⁹

¹¹⁸ FMN, paragraph 28.25.

¹¹⁹ [Merger Assessment Guidelines](#), paragraph 7.1(a).

130. Vertical mergers do not involve a direct loss of competition between merger firms.¹²⁰ However, a common concern is that vertical mergers may result in the foreclosure of current or potential rivals – ie that the merged entity will be able to use its position in one market to harm the competitiveness of its rivals in the other. This would weaken the constraints that the merged entity faces and as result harm competition and therefore customers.¹²¹
131. In the present case, the CMA considered whether NG might prioritise infrastructure works in WPD’s geographic area (or deprioritise work in other DNOs’ areas) to the detriment of other DNOs (and IDNOs in their respective areas) (eg by carrying out infrastructure works at reduced timescales in WPD’s area). This could be the case, for example, where a connection to a DNO’s network in NGET’s licensed geographic area requires reinforcement works at the transmission network that are carried out by NGET. If the speed at which network reinforcement work is carried out by NGET influences a customer’s choice of which distribution network to connect to, this could allow WPD to win more customers to the detriment of other DNOs.
132. The CMA’s approach to assessing input foreclosure is to analyse (a) the ability of the merged entity to foreclose competitors, (b) its incentive to do so, and (c) the overall effect of the strategy on competition.¹²² In practice, the CMA applies this framework flexibly and may consider these as overlapping analyses, rather than as distinct chronological stages.¹²³
133. In this case the CMA first considered whether there is competition between DNOs to win new connections customers (as if DNOs do not compete to win customers, any decisions that might theoretically be taken by NG to favour WPD when carrying out infrastructure works could not impact on competition downstream and therefore give rise to an SLC).
134. In assessing whether and to what extent different DNOs compete for customers, the CMA considered (i) the extent to which customers have the choice of connecting to a different distribution network in practice; (ii) for those customers that do have a choice, the factors that influence their decision about which network to connect to for a particular project; and (iii) the extent to which DNOs can and do flex their offers having regard to the factors that influence customers’ choices in order to encourage customers to connect to their network rather than another DNO’s network.

¹²⁰ [Merger Assessment Guidelines](#), paragraph 7.2.

¹²¹ [Merger Assessment Guidelines](#), paragraph 7.2.

¹²² [Merger Assessment Guidelines](#), paragraph 7.10.

¹²³ [Merger Assessment Guidelines](#), footnote 119,

135. As explained in paragraph 103, the CMA found that there are two circumstances where customers looking for a new connection to an electricity network might have the choice of connecting to different distribution networks depending on the specifics of their project. This choice arises when either (i) customers' projects are located close to the boundary between two DNOs; or (ii) customers can choose the location of their projects. The CMA found that the circumstances in which a customer is likely to have this choice are very limited.
136. In those cases where there may be a viable choice between connecting to different DNOs, customers and DNOs indicated that costs, network capacity, and timescales are the most likely factors to influence the decision of which network to connect to. Some third parties also mentioned distance from the project to the point of connection to the network, any need for third party consents, and any need for reinforcement works as factors affecting choice.
137. The CMA found that DNOs must provide connection offers whenever requested by a potential customer (other than in exceptional circumstances, see paragraph 35) and have little ability to flex their offers having regard to the factors that affect customer choice due to regulatory and technical factors.
- (a) As explained in paragraph 41, DNOs must follow a charging methodology approved by Ofgem and are also subject to licence conditions that set timescales for connection services. All DNOs that responded to the CMA's investigation said that the charging methodology gives them no leeway to adjust prices in order to attract customers. Consistent with this, no customers indicated that they were able to negotiate prices with DNOs. This indicates that pre-Merger there is no price competition between DNOs.
- (b) As explained in paragraph 41, DNOs are subject to licence conditions that set timescales for connection offers and services.
- (c) Other factors that may have a significant impact on costs and timescales such as distance to the network and need for planning permission or third party consents are outside the DNO's control.
- (d) As for capacity, the need for reinforcement works and curtailment, these are technical requirements that, either the distribution network owner is able to meet, or not, depending on the project needs.
138. Additionally, as explained in paragraph 125, Ofgem has some tools at its disposal to monitor whether all customers receive good service consistent with network owners' regulatory obligations.

139. The Parties' limited ability to flex their offers is reflected in the evidence from customers and DNOs:
- (a) None of the customers that responded to the CMA's investigation said that they had any scope to negotiate or influence any aspect of the offer with the network operator (including non-price elements), with the sole exception of the example mentioned in paragraph 124(b)(i). This includes the few customers that indicated that they had projects that could connect to two different DNOs in the last five years.
 - (b) None of the DNOs that responded to the CMA's investigation said that they had engaged in any form of price or non-price based competition (such as quality, service or timescales) to attract a customer to connect to their network rather than to another distribution network. One DNO said that it is aware that some customers requested a connection offer to its network and to a bordering DNO, but it nevertheless said that it is not able to negotiate the offer conditions of a connection request. DNOs highlighted that they must provide the most cost-efficient option for a customer's point of connection.
140. The CMA has not identified any evidence of competition between WPD and other DNOs for new connection customers in WPD's internal documents assessed by the CMA.
141. For the reasons set out above, the CMA believes that a limited number of customers may in principle have a choice between connecting to WPD and other DNOs. However, the CMA found that DNOs are heavily constrained by regulation and the CMA has received no evidence that DNOs currently compete with each other to win customers. Accordingly, the CMA considers that any post-Merger foreclosure strategy would not impact competition downstream. The CMA has therefore found that the Merger does not give rise to a realistic prospect of an SLC as a result of vertical effects in relation to the supply of new connections to distribution networks in Great Britain.

Horizontal unilateral effects in the supply of contestable new connection works at distribution asset voltages and asset maintenance services at distribution asset voltages in WPD's licensed geographic area

142. The Parties provide contestable new connection works and asset maintenance services that can also be carried out on a competitive basis by third parties. The CMA assessed whether it is or may be the case that the Merger has resulted, or may be expected to result, in an SLC in relation to horizontal unilateral effects in the supply of (i) contestable new connection

works at distribution asset voltages and (ii) asset maintenance services at distribution asset voltages in WPD's licensed geographic area.

Contestable new connection works at distribution asset voltages

143. The Parties submitted that they only supply contestable new connection works for their own networks.¹²⁴ By way of exception, the Parties submitted that NGET provides contestable new connection works in respect of connections to distribution networks (which are at 'distribution' voltages) in circumstances where the delivery of the distribution connection requires reinforcement works on NGET's transmission network. For example, where a new distribution substation incorporating transmission and distribution assets is required, for reasons of efficient delivery, NGET might build all of the relevant assets and transfer the distribution assets to a DNO afterwards.¹²⁵
144. The CMA therefore considers that there are very limited circumstances in which both Parties might in practice compete with each other to provide contestable new connection works at distribution asset voltages. This is consistent with the views of all suppliers (and one potential supplier) of contestable new connection works at distribution asset voltages that responded to the CMA's investigation, which indicated that the Parties do not compete with each other on the provision of contestable new connection works. The Parties further submitted that [redacted].¹²⁶
145. Moreover, all three suppliers of contestable new connection works at distribution asset voltages that responded to the CMA's investigation indicated that there are at least five to ten credible suppliers that could provide such services in WPD's licensed geographic area. Further, all DNOs and many customers that responded to the CMA's investigation indicated that there are at least five to ten credible suppliers that could provide contestable new connection works to distribution networks in their licensed areas or Great Britain, respectively. Suppliers are listed in the Lloyds Register, which contains hundreds of accredited ICPs (see paragraph 42). The majority of customers said that they tend to use ICPs for contestable works (rather than DNOs) as they are cheaper and have better customer service than DNOs.

¹²⁴ FMN, paragraphs 25.40 and 25.41.

¹²⁵ FMN, paragraph 25.46. As these works constitute 'reinforcement works' the Parties submitted that these do not meet the definition of 'contestable' works set down by WPD. The CMA has assessed the impact of the Merger on competition in the supply of contestable new connection works at distribution asset voltages on a cautious basis.

¹²⁶ FMN, paragraphs 31.14-31.15.

Asset maintenance services at distribution asset voltages

146. The Parties submitted that NGET (through the NG ECS brand) provides maintenance services to assets connected to its own network only (which may involve asset maintenance services for transmission and distribution asset voltages).¹²⁷ The Parties submitted that WPD (through WPD ECS) provides maintenance services for distribution asset voltages to customers located within or close to its licensed geographic area (not necessarily connected to WPD's network).¹²⁸
147. This means that there is a potential overlap between the Parties as they both provide asset maintenance services for distribution asset voltages to customers within or close to WPD's licensed geographic area. In practice, the evidence received by the CMA indicates that there are very limited circumstances in which both Parties could supply the same project because:
- (a) NG only provides such services to assets connected to its own network; and
 - (b) there is limited overlap in the Parties' customer base, as NG mainly provides asset maintenance services to generators, TOs, offshore transmission operators, DNOS and electricity interconnectors, while WPD provides services predominantly to owners of private electricity distribution networks and (to a lesser extent) IDNOs and generators.¹²⁹
148. This is consistent with the views of all suppliers of asset maintenance services for distribution asset voltages that responded to the CMA's investigation, which indicated that the Parties do not compete with each other on the provision of such services. The Parties submitted that [redacted].¹³⁰
149. Moreover, all four suppliers of asset maintenance services for distribution asset voltages that responded to the CMA's investigation indicated that there are at least five to ten credible suppliers that could provide such services in WPD's licensed geographic area. Further, all DNOs and many customers that responded to the CMA's investigation indicated that there were many credible suppliers (including ICPs) that could provide asset maintenance services to assets connected to distribution networks in their licensed areas or Great Britain, respectively.

¹²⁷ FMN, paragraph 61.5.

¹²⁸ WPD's customers include private owners of electrical distribution networks, IDNOs, and operators of wind generation assets. FMN, paragraph. 61.15 and 61.16.

¹²⁹ FMN, paragraphs 64.1 and 64.2.

¹³⁰ FMN paragraphs 67.1-67.4.

Conclusion on horizontal unilateral effects in the supply of contestable new connection works at distribution asset voltages and asset maintenance services at distribution asset voltages

150. For the reasons set out above, the CMA therefore believes that there are very limited circumstances in which both Parties might in practice compete with each other to supply contestable new connection works and asset maintenance services at distribution asset voltages for the same project. This is consistent with customers and suppliers' views that the Parties do not compete with each other on the supply of such services. Moreover, there are at least five to ten alternative suppliers of such services. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral effects in the supply of (i) contestable new connection works at distribution asset voltages or (ii) asset maintenance services at distribution asset voltages.

Horizontal unilateral effects in the supply of MAP services in Great Britain

151. The CMA assessed whether it is or may be the case that the Merger has resulted, or may be expected to result, in an SLC in relation to horizontal unilateral effects in MAP services in Great Britain, including all possible segmentations for (i) smart and traditional meters; (ii) gas and electricity meters; and (iii) meters for domestic and I&C premises, where relevant (ie where there is an overlap between the Parties in the relevant segment).
152. The Parties submitted that there is no direct competition between them, given the distinctions in their offering in terms of fuel type (gas and electricity), meter type (smart and traditional), and customer premises (domestic and I&C) served.¹³¹ In particular:
- (a) NG (through NGM) offers MAP services for traditional gas meters for both domestic and I&C premises.¹³² NG (through NGS) also has a portfolio of legacy smart electricity and gas meters for domestic premises only, but it no longer offers MAP services for new customers or replacements for existing customers.¹³³
 - (b) WPD (through WPD SM) offers MAP services for smart electricity meters for I&C premises. WPD (through the WPD DNO business) also has a

¹³¹ FMN, paragraph 50.2.

¹³² FMN, paragraph 49.23.

¹³³ FMN, paragraphs 49.7, 49.10, and 49.25. NGS also owns a small number of traditional electricity meters which were installed where technical reasons prevented installation of a smart meter or where a smart meter required replacement and another smart meter was not available. FMN paragraph 49.8.

portfolio of legacy traditional electricity meters for domestic premises, but it no longer offers MAP services for traditional electricity meters for new customers in view of the rollout of smart meters. WPD does not provide any services for gas meters.¹³⁴

153. The Parties submitted that there is no plausible basis on which the Merger could give rise to an SLC in the supply of MAP services, irrespective of the precise frame of reference considered.¹³⁵
154. In particular, the Parties submitted that (i) their combined shares of supply are low and, in any event, overstate the competitive relationship between the Parties' businesses; (ii) the Parties are not close competitors; and (iii) post-Merger, the Parties will continue to be subject to significant competitive constraints.¹³⁶
155. The Parties calculated their shares of supply estimates using the number of meters installed in 2020 for which they provide MAP services, and the total number of meters in operation in 2020 for which they provide MAP services as a proportion of the total number of meters installed and operated in 2020 in Great Britain as published by BEIS.¹³⁷ The Parties also provided estimates of the shares of supply of some competitors for which they were able to find public information. Where available, the CMA used information provided by third parties to calculate competitors' shares of supply.
156. Consistent with the CMA's assessment in *Calvin Capital/BV Holdings*,¹³⁸ the CMA mainly assessed shares of supply based on the number of new meters installed in 2020 (flow estimates), as opposed to shares of supply based on the total number of meters operated by suppliers (stock estimates), as shares of supply based on stock estimates are not reflective of the current competitive conditions given the long asset life of meters and associated rent agreements (see paragraph 45(a)).

¹³⁴ FMN, paragraphs 49.28, 49.29 and 49.38.

¹³⁵ FMN, paragraph 52.2.

¹³⁶ FMN, paragraphs 52.15-52.17 and 52.22.

¹³⁷ Data from BEIS available at: [Smart meters in Great Britain, quarterly update December 2020 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/531122/Smart_meters_in_Great_Britain_quarterly_update_December_2020.pdf).

¹³⁸ *ME/50767/19, Anticipated acquisition by Calvin Capital UK Holdings Ltd of BV Holdings Ltd*, paragraph 72.

157. Table 1 below presents flow estimates for the supply of MAP services for all energy meters (ie electricity and gas meters combined) and the only potential sub-segment where the Parties' activities overlap.¹³⁹

Table 1. Shares of supply for MAP services for electricity and gas meters in Great Britain, 2020.

<u>Supplier</u>	<u>Smart and traditional meters for both domestic and I&C premises</u>	<u>Smart and traditional meters for I&C premises</u>
<u>National Grid</u>	[0-5]%	[0-5]%
<u>WPD</u>	[0-5]%	[0-5]%
<u>Parties combined</u>	[0-5]%	[0-5]%
<u>Macquarie</u>	[40-50]%	[20-30]%
<u>Calvin Capital</u>	[20-30]%	[0-5]%
<u>Northern Powergrid</u>	[10-20]%	[10%-20%]
<u>SGN/MapleCo</u>	[10-20]%	[0-5]%
<u>SMA</u>	[5-10]%	[5-10]%
<u>Others</u>	[0-5]%	[50-60%]

Source: Parties, third parties and BEIS data. Shares of supply for Parties and third parties estimated as a proportion of the total number of meters as published by BEIS. Shares of supply for competitors is estimated by the Parties using public information, or using information provided by third parties to the CMA where available. The CMA received information from the following suppliers: [×].

158. Table 1 above indicates that the Parties have very low combined shares of supply in the supply of MAP services for electricity and gas meters. In both cases, the Parties' combined shares of supply are lower than [0-5]%. The CMA also notes that the shares of supply of the Parties and competitors are upper estimates as the BEIS data for meter installations in 2020 only cover smart meters, reflecting the ongoing smart meter rollout and the phasing out of traditional meters, while data for the Parties and competitors include both traditional and smart meters.¹⁴⁰

¹³⁹ Moreover, in terms of total number of meters operated, the Parties only have combined shares of supply higher than [5-10]% when considering both smart and traditional meters. However, the Parties do not compete in the supply of MAP services for new customers for traditional meters. As explained in paragraph 152, only NG currently offers MAP services for traditional meters and only for gas meters. WPD no longer offers MAP services for new customers of traditional electricity meters and does not provide any services for gas meters.

¹⁴⁰ According to the Parties, new traditional meters are installed only where it is necessary (eg where a smart meter is not available). FMN, paragraph 50.22.

159. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral effects in the supply of MAP services.

Horizontal unilateral effects in the supply of MAM/MOP services in Great Britain

160. In this section, the CMA assessed whether it is or may be the case that the Merger has resulted, or may be expected to result, in an SLC in relation to the horizontal unilateral effects in the supply of MAM/MOP services in Great Britain, including possible segmentations for (i) smart and traditional meters; (ii) gas and electricity meters; and (iii) meters for domestic and I&C premises, where relevant (ie where there is an overlap between the Parties in the relevant segment).
161. The Parties submitted that there is no direct competition between them, given differences in their offering in terms of fuel type (gas and electricity), meter type (smart and traditional), and customer premises (domestic and I&C) served.¹⁴¹ In particular:
- (a) NG (through NGM) offers MAM/MOP services for traditional gas meters for both domestic and I&C premises. NG (through either NGM or NGS) does not offer MAM/MOP services for smart meters, either electricity or gas meters.¹⁴²
 - (b) WPD (through WPD SM) offers MAM/MOP services for smart electricity meters for I&C customers. WPD (through either WPD SM or WPD DNO business) does not offer MAM/MOP services for traditional meters. WPD does not provide any services for gas meters.¹⁴³
162. The Parties submitted that there is no plausible basis on which the Merger could give rise to an SLC in the supply of MAM/MOP services, irrespective of the precise frame of reference considered.¹⁴⁴
163. In particular, the Parties submitted that (i) their combined shares of supply are low and, in any event, overstate the competitive relationship between the Parties' businesses; (ii) the Parties are not close competitors; and (iii) post-Merger, the Parties will continue to be subject to significant competitive constraints.¹⁴⁵

¹⁴¹ FMN, paragraph 50.2.

¹⁴² FMN, paragraphs 49.9, 49.23, and 49.25.

¹⁴³ FMN, paragraphs 49.28, 49.29 and 49.38.

¹⁴⁴ FMN, paragraph 52.14.

¹⁴⁵ FMN, paragraphs 52.15-52.17 and 52.22.

164. As the provision of MAM/MOP services is not tied to the provision of MAP services (which have long rent agreements reflecting the long asset life of meters – see paragraph 156) and suppliers can and do provide MAM/MOP services to customers that they do not supply MAP services to (including self-supply), on a cautious basis the CMA assessed shares of supply based on the number of new meter installations for which suppliers provided MAM/MOP services in 2020 (flow estimates) and also on the total number of meters for which suppliers provided MAM/MOP services in 2020 ('operating') (stock estimates).
165. The Parties submitted that there is no publicly available data regarding the provision of MAM/MOP services, but they consider that every meter, irrespective of functionality or type, requires the provision of MAM/MOP services whether by a third party or by way of self-supply.¹⁴⁶ Accordingly, the Parties used the number of meters that they provide MAM/MAP services as a proportion of the total number of meters in Great Britain as published by BEIS to estimate their shares of supply in the supply of MAM/MOP services.¹⁴⁷ The Parties also provided estimates of the shares of supply of some competitors for which they were able to find public information. Where available, the CMA used information provided by third parties to calculate competitors' shares of supply.
166. Table 2 below presents the flow and stock estimates for the supply of MAM/MOP services for all energy meters (ie electricity and gas meters combined) and the only potential sub-segment where the Parties' activities overlap.

Table 2. Shares of supply for MAM/MOP services for electricity and gas meters in Great Britain, 2020.

	Smart and traditional electricity and gas meters for both domestic and I&C premises		Smart and traditional electricity and gas meters for I&C premises	
	Installed	Operating	Installed	Operating
National Grid	[0-5]%	[10-20]%	[0-5]%	[10-20]%
WPD	[0-5]%	[0-5]%	[10-20]%	[5-10]%
Parties combined	[0-5]%	[10-20]%	[10-20]%	[10-20]%
Calvin Capital	[70-80]% ⁱⁱ	[10-20]%	[0-5]%	[0-5]%

¹⁴⁶ FMN, paragraph 51.10.

¹⁴⁷ Data from BEIS available at: [Smart meters in Great Britain, quarterly update December 2020 - GOV.UK \(www.gov.uk\)](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/534222/smart_meters_in_great_britain_quarterly_update_december_2020.pdf).

Amey	[0-5%]	Unknown	[0-5%]	Unknown
Siemens	[5-10%]	Unknown	[5-10%]	Unknown
Self-supply	[5-10%]	Unknown	[60-70%]	Unknown
Other/unknown	[10-20%]	Unknown	[10-20%]	Unknown
Provider	Unknown	Up to [0-5%]	Unknown	Up to c.[30-40%]
SMS plc	Unknown	Up to [5-10%]	Unknown	0.00%
IMServ	[0-5%]	[0-5%]	Unknown	Up to c. [30-40%]

Source: Parties, third parties and BEIS data. Shares of supply for Parties and third parties estimated as a proportion of the total number of meters as published by BEIS. Shares of supply for competitors is estimated by the Parties using public information, or using information provided by third parties to the CMA where available. The CMA received information from the following suppliers: [redacted].

167. Table 2 above shows that the Parties have low combined shares of supply for MAM/MOP services for electricity and gas meters. In both cases, the Parties' combined shares of supply are lower than 20% with an increment of at most [5-10]%. The shares of supply of the Parties and competitors are also upper estimates as the BEIS data for meter installations only covers smart meters, reflecting the ongoing smart meter rollout and the phasing out of traditional meters, while information for Parties and competitors include both traditional and smart meters.
168. The presence of at least five other suppliers indicates that there are alternatives available to customers, with self-supply of MAM/MOP services also a viable option for at least some customers.
169. Additionally, horizontal unilateral effects are more likely when the merging parties are close competitors¹⁴⁸ and the Parties are not close competitors in the supply of MAM/MOP services for electricity and gas meters, as WPD does not provide any services for gas meters, which comprise all of NG's portfolio for MAM/MOP services.
170. No third parties raised concerns with respect to the impact of the Merger on the provision of MAM/MOP services for electricity and gas meters.
171. Accordingly, the CMA found that the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral effects in the supply of MAM/MOP services in Great Britain, including all possible segmentations.

¹⁴⁸ [Merger Assessment Guidelines](#), paragraph 4.8.

Barriers to entry and expansion

172. Entry, or expansion of existing firms, can mitigate the initial effect of a merger on competition, and in some cases may mean that there is no SLC. In assessing whether entry or expansion might prevent an SLC, the CMA considers whether such entry or expansion would be timely, likely and sufficient.¹⁴⁹
173. However, the CMA has not had to conclude on barriers to entry or expansion as the Merger does not give rise to competition concerns on any basis.

Third party views

174. The CMA contacted customers and competitors of the Parties. The CMA also contacted Ofgem. Third party comments have been taken into account where appropriate in the competitive assessment above.
175. In addition to the issues considered in the assessment above, some third parties raised the following concerns with respect to current and future regulation of the Merged Entity.
- (a) Three DNOs submitted that appropriate controls should be maintained or put in place to ensure equal treatment of DNOs by NG. Of these, one noted that it does not currently have any concerns regarding the Merger, provided that NGESO is ringfenced from WPD.¹⁵⁰ Another DNO submitted that robust business separation rules should be put in place between NGET and WPD so that all DNOs in NG's transmission network area receive equal treatment, including equal access to information requiring NGET involvement.
 - (b) Three third parties raised concerns regarding the combination of NGESO and a DNO/DSO. Two raised concerns with respect to the scope for NGESO to favour WPD in a way that could impact providers of flexibility and related services. One third party raised a concern regarding the impact on the connection process for applicants seeking connection to the transmission network.
 - (c) One third party raised concerns about the impact of the Merger on Ofgem's ability to undertake comparative regulation and analysis for price controls,

¹⁴⁹ [Merger Assessment Guidelines](#), from paragraph 8.40.

¹⁵⁰ I.e, consistent with the pre-Merger ringfence between NGESO and NGET operations today. See paragraph 38.

including increasing information asymmetry between the TO and DNOs on one side and Ofgem and other key industry stakeholders on the other.¹⁵¹

176. The CMA has shared the above concerns with Ofgem as appropriate.

Decision

177. Consequently, the CMA does not believe that it is or may be the case that the Merger has resulted, or may be expected to result, in an SLC within a market or markets in the United Kingdom.

178. The Merger will therefore **not be referred** under section 22(1) of the Act.

Naomi Burgoyne
Director, Mergers
Competition and Markets Authority
1 September 2021

ⁱ Paragraph 24 should be read as follows: 'The Parties submitted that the Merger is part of a wider long-term strategic repositioning of NG in the UK to focus on the electricity sector, driven by NG's ambition to play a leading role in delivering the transition to net zero. As part of this repositioning, NG previously sold its gas distribution network business and plans to sell a majority stake in National Grid Gas plc (the owner and operator of the high-pressure gas transmission network in Great Britain) including its subsidiary NGM, NG's traditional (non smart) gas metering business, in the near future.'

ⁱⁱ With respect to Table 2, the CMA notes that Calvin Capital's share of supply of MAM/MOP services for energy meters (comprising smart and traditional electricity and gas meters for both domestic and I&C premises) newly installed in Great Britain in 2020 is an estimate only and may overstate Calvin Capital's share of supply in this segment. This is due to a difference in interpretation regarding the data requested by (and therefore provided to) the CMA for the purposes of calculating Calvin Capital's estimated share of supply in this segment, as a result of which, Calvin Capital submitted that its share of supply of MAM/MOP services for energy meters newly installed in Great Britain in 2020 is significantly overstated. The CMA notes that this does not impact the CMA's finding that the Merger does not give rise to a realistic prospect of an SLC as a result of horizontal unilateral effects in the supply of MAM/MOP services in Great Britain, including all possible segmentations.

¹⁵¹ As explained in paragraph 35, footnote 19, as there is no energy sector equivalent of the special water merger regime, the CMA has not considered the impact of the Merger on comparative benchmarking.