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### **Demand Flexibility Service (DFS) Terms and Conditions**

Dear James,

In accordance with Commission Regulation (EU) 2017/2195 of 23 November 2017 (as converted into retained EU law) (EBR), National Grid ESO is proposing to amend its terms and conditions relating to balancing specifically to introduce terms and conditions for a new Demand Flexibility Service (DFS).

DFS has been developed to allow the ESO to access additional flexibility when the national demand is at its highest, during peak winter days, that is not currently accessible to the ESO in real time.

In accordance with EBR, a consultation with industry on the Terms and Conditions of the Demand Flexibility Service (DFS) was undertaken from 1 September 2022 to 3 October 2022 in order to agree the terms for this new service. If approved these documents will constitute version 1 of the contractual documents for the service.

If you have any queries regarding this proposal, please contact us using the above email address.

Yours sincerely,

Kyle Martin  
Market Change Delivery Senior Manager

## Annex 1

### EBR Article 18 mapping for Demand Flexibility Terms and Conditions

This table cross references the terms and conditions related to balancing described in Article 18 of the Electricity Balancing Regulation against the corresponding parts of the GB codes and relevant contractual provisions, with particular reference to the new Demand Flexibility Service. This cross referencing includes the terms and conditions for balancing service providers and the terms and conditions for balance responsible parties.

Nothing in this table shall prejudice or otherwise affect the operation of the GB codes and relevant contractual provisions, and in the event of any conflict or inconsistency between this table and Article 18 EBR the latter shall prevail.

**Table 1**

| <i>Article</i> | <i>Text</i>  | <i>Code or Document</i>               | <i>Section</i>   |
|----------------|--|---------------------------------------|--|
| <b>18.2</b>    | The terms and conditions pursuant to paragraph 1 shall also include the rules for suspension and restoration of market activities pursuant to Article 36 of Regulation (EU) 2017/2196 and rules for settlement in case of market suspension pursuant to Article 39 of Regulation (EU) 2017/2196 once approved in accordance with Article 4 of Regulation (EU) 2017/2196. | Grid Code                             | OC9.4  |
|                |  | BSC                                   | G3   |
| <b>18.4</b>    | The terms and conditions for balancing service providers shall:  | -                                     | -  |
| <b>18.4.a</b>  | Define reasonable and justified requirements for the provisions of balancing services;   | DFS Procurement Rules & Service Terms | <b>DFS Procurement Rules</b><br>6 – DFS Operational Baselines<br>8 – Weekly indicative forecasts<br>10 – Submission of DFS Bids<br>14 – Delivery of DFS<br>15 – Updated Volume Forecasts<br><br><b>DFS Service Terms</b><br>5 – Service Delivery |
|                |  | BSC                                   | BSC Section A, H3, H4.2, H4.7, H4.8, H5.5, H6, H10, J3.3, J3.6, J3.7 and J3.8  |
|                |  | CUSC                                  | Section 4.1.3  |
| <b>18.4.b</b>  | allow the aggregation of demand facilities, energy storage facilities and power generating facilities in a scheduling area to offer balancing services subject to conditions referred to in paragraph 5 (c);   | BSC                                   | K3.3, K8, S6.2, S6.3 and S11   |
|                |  | Grid Code                             | DRSC 4.2, BC1.4  |
|                |  | DFS Procurement Rules & Service Terms | <b>DFS Procurement Rules</b><br>4 - Registration of DFS Units<br><br>Schedule 2 – Registration and Pre-Qualification Procedure   |

| <b>Article</b> | <b>Text</b>   | <b>Code or Document</b>               | <b>Section</b>   |
|----------------|---|---------------------------------------|--|
| <b>18.4.c</b>  | allow demand facility owners, third parties and owners of power generating facilities from conventional and renewable energy sources as well as owners of energy storage units to become balancing service providers; | BSC                                   | K3.2, K3.3, K8   |
|                |   | DFS Procurement Rules & Service Terms | <b>DFS Procurement Rules</b><br>4 - Registration of DFS Units<br><br>Schedule 2 – Registration and Pre-Qualification Procedure   |
| <b>18.4.d</b>  | require that each balancing energy bid from a balancing service provider is assigned to one or more balance responsible parties to enable the calculation of an imbalance adjustment pursuant to Article 49.          | BSC                                   | T4, Q7.2, Q6.4   |
| <b>18.5</b>    | The terms and conditions for balancing service providers shall contain:   | -                                     | -  |
| <b>18.5.a</b>  | the rules for the qualification process to become a balancing service provider pursuant to Article 16;  | DFS Procurement Rules & Service Terms | <b>DFS Procurement Rules</b><br>4 – Registration of DFS Units<br>5 – Registration as Registered DFS Participant<br>Schedule 2 – Registration and Pre-Qualification Procedure |
|                |   | Grid Code                             | BC5, BC4.4.2   |
|                |   | CUSC                                  | Section 4.1  |
|                |   | BSC                                   | J3.3, J3.6, J3.7, J3.8, K3.2, K3.3 and K8  |
| <b>18.5.b</b>  | the rules, requirements and timescales for the procurement and transfer of balancing capacity pursuant to Articles 32, 33 and 34;   | -                                     | -  |
| <b>18.5.c</b>  | the rules and conditions for the aggregation of demand facilities, energy storage facilities and power generating facilities in a scheduling area to become a balancing service provider;                             | DFS Procurement Rules & Service Terms | <b>DFS Procurement Rules</b><br>4 - Registration of DFS Units<br><br>Schedule 2 – Registration and Pre-Qualification Procedure   |
|                |   | BSC                                   | K3.3 and K8  |
|                |   | Grid Code                             | BC1.4 and BC1.A.10   |

| <b>Article</b> | <b>Text</b>  | <b>Code or Document</b>               | <b>Section</b>  |
|----------------|--|---------------------------------------|---|
| <b>18.5.d</b>  | the requirements on data and information to be delivered to the connecting TSO and, where relevant, to the reserve connecting DSO during the prequalification process and operation of the balancing market;   | DFS Procurement Rules & Service Terms | <b>DFS Procurement Rules</b><br>4 – Registration of DFS Units<br>5 – Registration as Registered DFS Participant<br>6 – DFS Operational Baselines<br>8 – Weekly Indicative Forecasts<br>10 – Submission of DFS Bids<br>15 – Updated Volume Forecasts<br>Schedule 2 – Registration and pre-qualification<br>Schedule 3 – DFS Operational Baselines<br><br><b>DFS Service Terms</b><br>6 – Performance Data<br>8.2 – (Settlement Data) |
|                |  | BSC                                   | BSC Section O   |
|                |  | Grid Code                             | DRC, BC5 BC1.4,   |
|                |  | CUSC                                  | Section 4.1.3.14 and 4.1.3.19   |
| <b>18.5.e</b>  | the rules and conditions for the assignment of each balancing energy bid from a balancing service provider to one or more balance responsible parties pursuant to paragraph 4 (d);   | BSC                                   | T4  |
|                |  | DFS Procurement Rules & Service Terms | <b>DFS Procurement Rules</b><br>14 – Delivery of DFS<br><br><b>DFS Service Terms</b><br>18 – Assignment   |
| <b>18.5.f</b>  | the requirements on data and information to be delivered to the connecting TSO and, where relevant, to the reserve connecting DSO to evaluate the provisions of balancing services pursuant to Article 154(1), Article 154(8), Article 158(1)(e), Article 158(4)(b), Article 161(1)(f) and Article 161(4)(b) of Regulation (EU) 2017/1485; | DFS Procurement Rules & Service Terms | <b>DFS Service Terms</b><br>6 – Performance Data  |
|                |  | Grid Code                             | Grid Code BC1.4, BC1.A.10,  |
|                |  | CUSC                                  | 4.1.3.19  |
| <b>18.5.g</b>  | the definition of a location for each standard product and each specific product taking into account paragraph 5 (c);  | Grid Code                             | BC1.4   |
| <b>18.5.h</b>  | the rules for the determination of the volume of balancing energy to be settled with the balancing service provider pursuant to Article 45;  | BSC                                   | BSC T3  |
| <b>18.5.i</b>  | the rules for the settlement of balancing service providers defined pursuant to Chapters 2 and 5 of Title V;   | DFS Procurement Rules & Service Terms | <b>DFS Service Terms</b><br>8 – Payment Procedure<br>Schedule 1 – Utilisation payments  |

| <b>Article</b> | <b>Text</b>  | <b>Code or Document</b>               | <b>Section</b>  |
|----------------|--|---------------------------------------|---|
|                |  |                                       | Schedule 2 – Payment provisions   |
|                |  | BSC                                   | T1.14, T3 and U   |
|                |  | CUSC                                  | Section 4.1.3.9 and 4.1.3.9A  |
| <b>18.5. j</b> | a maximum period for the finalisation of the settlement of balancing energy with a balancing service provider in accordance with Article 45, for any given imbalance settlement period;                      | DFS Service Terms                     | <b>DFS Service Terms</b><br>8 – Payment Procedure<br>Schedule 1 – Utilisation payments<br>Schedule 2 – Payment provisions   |
|                |  | BSC                                   | U2.2  |
|                |  | CUSC                                  | Section 4.3.2.6   |
| <b>18.5. k</b> | the consequences in case of non-compliance with the terms and conditions applicable to balancing service providers.  | DFS Procurement Rules & Service Terms | <b>DFS Procurement Rules</b><br>5 – Registration as Registered DFS Participant<br>10 – Submission of Bids<br><br><b>DFS Service Terms</b><br>12 – Provision of Other Services |
|                |  | BSC                                   | H3, Z7 and A5.2   |
|                |  | CUSC                                  | Sections 4.1.3.9, 4.1.3.9A and 4.1.3.14   |
| <b>18.6</b>    | The terms and conditions for balance responsible parties shall contain:  | -                                     | -   |
| <b>18.6. a</b> | the definition of balance responsibility for each connection in a way that avoids any gaps or overlaps in the balance responsibility of different market participants providing services to that connection; | BSC                                   | K1.2, P3 and T4.5   |
| <b>18.6. b</b> | the requirements for becoming a balance responsible party;   | BSC                                   | A, H3, H4.2, H4.7, H4.8, H5.5, H6, H10, J3.3, J3.6, J3.7, J3.8,, K2, K3.3 and K8  |
| <b>18.6.c</b>  | the requirement that all balance responsible parties shall be financially responsible for their imbalances, and that the imbalances shall be settled with the connecting TSO;                                | BSC                                   | N2, N6, N8, N12, and T4,  |

| <b>Article</b> | <b>Text</b>  | <b>Code or Document</b>   | <b>Section</b>   |
|----------------|--|---|--|
| <b>18.6.d</b>  | the requirements on data and information to be delivered to the connecting TSO to calculate the imbalances;  | BSC   | BSC Section O, Q3, Q5.3, Q5.6, Q6.2, Q6.3, Q6.4  |
|                |  | Grid Code   | BC1.4.2,3,4, BC1 Appendix 1 BC2.5.1,   |
| <b>18.6.e</b>  | the rules for balance responsible parties to change their schedules prior to and after the intraday energy gate closure time pursuant to paragraphs 3 and 4 of Article 17;   | BSC   | P2   |
|                |  | Grid Code   | BC1.4.3,4,   |
| <b>18.6.f</b>  | the rules for the settlement of balance responsible parties defined pursuant to Chapter 4 of Title V;  | BSC   | T4, U2   |
| <b>18.6.g</b>  | the delineation of an imbalance area pursuant to Article 54(2) and an imbalance price area;  | -   | <i>GB constitutes one imbalance area and imbalance price area and they are equal to the synchronous area</i> |
| <b>18.6.h</b>  | a maximum period for the finalisation of the settlement of imbalances with balance responsible parties for any given imbalance settlement period pursuant to Article 54;   | BSC   | U2.2   |
| <b>18.6.i</b>  | the consequences in case of non-compliance with the terms and conditions applicable to balance responsible parties;  | BSC   | H3,Z7 and A5.2   |
| <b>18.6.j</b>  | an obligation for balance responsible parties to submit to the connecting TSO any modifications of the position;   | BSC   | P2   |
| <b>18.6.k</b>  | the settlement rules pursuant to Articles 52, 53, 54 and 55;   | BSC   | T4, U2   |
| <b>18.6.l</b>  | where existing, the provisions for the exclusion of imbalances from the imbalance settlement when they are associated with the introduction of ramping restrictions for the alleviation of deterministic frequency deviations pursuant to Article 137(4) of Regulation (EU) 2017/1485. | Deterministic frequency deviation is a continental European concept and is not a characteristic of the GB system. Therefore, this requirement does not apply to GB. | N/A  |

**Non- Mandatory elements**

| <b>Article</b> | <b>Text</b>  | <b>Comment</b>   |
|----------------|--|--|
| <b>18.7. a</b> | a requirement for balancing service providers to provide information on unused generation capacity and other balancing resources from balancing service providers, after the day-ahead market gate closure time and after the intraday cross-zonal gate closure time;  | NG ESO does not expect to require this from Balancing Service Providers.   |
| <b>18.7. b</b> | where justified, a requirement for balancing service providers to offer the unused generation capacity or other balancing resources through balancing energy bids or integrated scheduling process bids in the balancing markets after day ahead market gate closure time, without prejudice to the possibility of balancing service providers to change their balancing energy bids prior to the balancing energy gate closure time or the integrated scheduling process gate closure time due to trading within intraday market; | NG ESO does not expect to require this from Balancing Service Providers, except where balancing capacity or energy has been contracted. Although in the BM defaulting rules apply if data is not updated, there is no legal requirement for parties to offer unused generation capacity or any other balancing resource. |
| <b>18.7. c</b> | where justified, a requirement for balancing service providers to offer the unused generation capacity or other balancing resources through balancing energy bids or integrated scheduling process bids in the balancing markets after intraday cross-zonal gate closure time;   | NG ESO does not expect to require this from Balancing Service Providers, except where balancing capacity or energy has been contracted. Although in the BM defaulting rules apply if data is not updated, there is no legal requirement for parties to offer unused generation capacity or any other balancing resource. |
| <b>18.7. d</b> | specific requirements with regard to the position of balance responsible parties submitted after the day-ahead market timeframe to ensure that the sum of their internal and external commercial trade schedules equals the sum of the physical generation and consumption schedules, taking into account electrical losses compensation, where relevant;  | NG ESO does not expect to require this from Balancing Service Providers. No BSC party is required to contract to match its Final Physical Notifications (FPNs).  |
| <b>18.7. e</b> | an exemption to publish information on offered prices of balancing energy or balancing capacity bids due to market abuse concerns pursuant to Article 12(4)  | NG ESO does not expect to require this exemption. Such data is published on BMRS.  |
| <b>18.7. f</b> | an exemption for specific products defined in Article 26(3)(b) to predetermine the price of the balancing energy bids from a balancing capacity contract pursuant to Article 16(6)   | -  |
| <b>18.7. g</b> | An application for the use of dual pricing for all imbalances based on the conditions established pursuant to Article 52(2)(d)(i) and the methodology for applying dual pricing pursuant to Article 52(2)(d)(ii).  | NG ESO does not expect to apply for the use of dual pricing for all imbalances. A single imbalance price was adopted by the GB market in November 2015.  |

## Annex 2

### EBR Article 18 Dynamic Regulation and Dynamic Moderation Terms and Conditions Consultation Responses Summary

**Table 1**

Summary of responses and key themes from the consultation responses and NGENSO comments. For responses provided on the official template we have only included the specific questions the provider responded to, all other questions should be assumed as “no comment” from the provider. Where providers have submitted detailed letters, or their response is very detailed on the response template NGENSO has summarised the response into key themes.

| Respondent         | Response or Key Theme  | NGESO Comments  |
|--------------------|--|---|
| Thermal Storage UK | <p><b><i>Do you agree with the proposal for the Demand Flexibility Service?<br/>Please provide rationale</i></b></p> <p><b><u>General</u></b><br/>Yes, we agree with National Grid ESO offering an additional Demand Flexibility Service this winter. We support a turndown trial to test the concept with half hourly metered residential and business customers. Next winter, we support expanding the trial to include increasing consumption as well.</p> <p>There are significant system and carbon emissions benefits to using electricity for heat and transport and making the most of the flexibility that these products can provide. Smart thermal storage can work with or instead of heat pumps to provide warmth and reduce peak electricity demand.</p> <p><b><u>Publishing information</u></b><br/>We encourage National Grid ESO to publish information about the trial both in real-time and after the trial concludes. We expect that this trial will add to the evidence base in favour of ensuring markets and systems support flexibility.</p> | <p><b><u>General</u></b><br/>Thank you for your feedback and support in regard to the development of this service.</p> <p><b><u>Publishing information</u></b><br/>We will publish information on the service on the ESO Data Portal, this will include required and procured quantities, and prices accepted. Information will be published to industry at the same time that participants are made aware of any requirement.</p> <p>We are aiming to review how the service was used and delivered post the service term, this will support the ESO in understanding how the service was received by industry &amp; consumers. The learning from this service will feed into other projects which are considering how to enable demand flexibility in an enduring capacity.</p> |
|                    | <p><b><i>Do you agree with our proposal to introduce both onboarding and regular monthly tests to provide confidence the service will be commercially viable? Please provide rationale</i></b></p>   |   |



|   |  |
|---|--|
| <p><b><i>Do you agree with our proposals as part of testing to introduce a Guaranteed Acceptance Price? Please provide rationale</i></b></p> <p><b><u>Testing</u></b><br/>We agree with the proposal to introduce onboarding and regular monthly tests.</p> <p><b><u>Publishing information</u></b><br/>We encourage National Grid ESO to publish information about the trial as close to real-time as possible, including participating suppliers and aggregators, prices offered and volumes achieved.</p> <p><b><u>Guaranteed Acceptance Price</u></b><br/>We agree with the proposal to introduce a Guaranteed Acceptance Price. We recommend that this price is sufficiently high to encourage participating consumers to turn down electricity consumption voluntarily, as well as providing value for money for all consumers. To encourage participation, we recommend that this price is in excess of the relative unit rate set out in the Ofgem price cap.</p> | <p><b><u>Testing</u></b><br/>Thank you for your feedback supporting our proposal to provide onboarding and monthly tests.</p> <p><b><u>Publishing information</u></b><br/>See above response.</p> <p><b><u>Guaranteed Acceptance Price</u></b><br/>Thank you for your comments on the Guaranteed Acceptance Price for the tests. We have received a range of feedback on the proposed price level from potential providers, which indicates that a GAP level of £2,000/MWh or higher is required to unlock maximum volumes and to meet our aim of making the service viable for this winter. In light of these developments, we intend to increase the GAP from our initial proposal and will share further details once we have this finalised.</p> |
| <p><b><i>Do you have any other comments on the Demand Flexibility service proposal?</i></b></p> <p><b><u>Eligibility</u></b><br/>We recommend that the new service is designed to target both residential and business customers. It is important that the scheme is designed to encourage businesses to change behaviour this winter, as well as households.</p> <p><b><u>Enduring service</u></b><br/>We agree that the trial should run from 1 November 2022 through to 31 March 2023. We recommend that, subject to the evidence of the trial, National Grid ESO looks to establish this service as a permanent feature of the market. We recommend that next winter the product evolves to include increasing consumption at off-peak times to reduce peak loads.</p>  | <p><b><u>Eligibility</u></b><br/>Thank you for your comments, this service is targeted at additional flexibility which the ESO cannot currently access via its usual market routes. This includes both domestic and industrial &amp; commercial participants if they can provide additional flexibility.</p> <p><b><u>Enduring service</u></b><br/>This service is specifically for this 22/23 Winter period and is not an enduring service. It is an enhanced action and not a commercial service.</p>  |

|          |   |   |
|----------|---|---|
|          | <p><b><u>Eligibility</u></b><br/>We agree that the unit capacity should range from 1 MW to 100 MW.</p> <p>We agree that participating customers are half hourly metered. We recommend that National Grid ESO allows aggregators to participate alongside energy suppliers, if needs be by using reconciliation mechanisms to avoid double-counting.</p> <p><b><u>Publishing information</u></b><br/>We recommend that reporting of the trial includes seeking information about how participating consumers reduced their consumption. In particular, we recommend that reporting explores whether domestic consumers were able to load shift heat or transport appliances and whether businesses changed their operating hours. This insight will help evolve the trial into a permanent product.</p>          | <p>We are aiming to review how the service was used and delivered post the service term, this will support the ESO in understanding how the service was received by industry &amp; consumers. The learnings from this service will feed into other projects which are considering how to enable demand flexibility in an enduring capacity.</p> <p><b><u>Eligibility</u></b><br/>Thank you for your support on unit size.</p> <p>Aggregators can participate alongside suppliers as long as they can meet the eligibility requirements of the service, outlined in the Procurement Rules Clause 4.2.3.</p> <p>We have been engaging with industry and understand that double counting of MPANs is a large risk for some participants. We have outlined a more detailed process for how we will check MPANs and deal with any duplicated registration.</p> <p><b><u>Publishing information</u></b><br/>See above response.</p> |
| Invinity | <p><b><i>Do you have any other comments on the Demand Flexibility service proposal?</i></b></p> <p><b><u>Order of actions</u></b><br/>It appears that this service will operate alongside existing methods for the ESO to procure power flexibility (i.e. enabling providers to be paid to change generation or demand close to real time e.g. BM).</p> <p>It is not clear why the existing services were not suitable to procure the same flexibility from the same providers that might use this new service; or why the existing services were not modified/improved where necessary in order to allow access to providers who might use the new service.</p> <p>I would like to know how this service is expected to interact with the delivery of, and the recovery of costs of, these other services.</p> | <p><b><u>Order of actions</u></b><br/>Thank you for your comments, this service is targeted at additional flexibility which the ESO cannot currently access via its usual market routes.</p> <p>In preparation for a potentially tight Winter and with the turbulent political environment worldwide, we have developed this new service (Demand Flexibility Service) to access additional demand reduction. This has been developed as a last resort option intended to bolster security of supply for the whole of the Winter period and to prevent or reduce any requirement for demand disconnection when all other options have been exhausted.</p>  |

|           |   |   |
|-----------|---|---|
|           |   | <p>The Order of actions that the ESO will take was shared during the ESO Autumn Markets Forum on 28th September 2022. The link to slides can be below and are on slide 8:<br/> <a href="https://www.nationalgrideso.com/document/268021/download">https://www.nationalgrideso.com/document/268021/download</a></p> <p>The ESO is not enabling stacking as part of this service, the service is looking for additional capacity that the ESO cannot currently access. If providers have access to other services, this is not considered additional and as this is a last resort service, we would rather these other commercial services are participated in.</p> <ul style="list-style-type: none"> <li>- Assets with Capacity Market Agreements cannot participate</li> <li>- Assets participating in Balancing Services for the ESO or similar services to other 3rd parties (except for ANMS) cannot participate</li> </ul> |
| ev.energy | <p><b><i>Do you agree with the proposal for the Demand Flexibility Service?<br/>Please provide rationale</i></b></p> <p><b><u>General</u></b><br/> Yes – Overall the principals of Demand Flexibility Service are a great way to enable new flexibility to participate in grid balancing.</p> <p><b><u>Enduring service</u></b><br/> This trial should provide an important ‘pathfinder’ for domestic flexibility trying to access the Balancing Mechanism, which is currently blocked until post 2025 by the lack of Half-Hourly Settlement (&lt;2% of domestic meters).</p> <p>As well as helping to ensure grid reliability this winter, the learnings from this service/trial can be used to help inform the future of balancing services and how domestic and distributed flexibility can ultimately be unlocked at scale to increase liquidity in the BM.</p> | <p><b><u>General</u></b><br/> Thank you for your feedback and support in regards to the development of this service.</p> <p><b><u>Enduring service</u></b><br/> Thank you for your comments.<br/> We are aiming to review how the service was used and delivered post the service term, this will support the ESO in understanding how the service was received by industry &amp; consumers. The learning from this service will feed into other projects which are considering how to enable demand flexibility in an enduring capacity.</p>   |
|           | <p><b><i>Do you agree with our proposal to introduce both onboarding and regular monthly tests to provide confidence the service will be commercially viable? Please provide rationale</i></b></p>  |   |

|   |   |
|---|---|
| <p><b><i>Do you agree with our proposals as part of testing to introduce a Guaranteed Acceptance Price? Please provide rationale</i></b></p> <p><b><u>Testing</u></b><br/> Yes – the regular monthly testing will increase the learnings gained from running the service this winter and will also encourage greater participation by guaranteeing commercial viability to new providers who will be investing time and resources in getting setup to deliver the service.</p> <p><b><u>Guaranteed Acceptance Price</u></b><br/> Yes, however the current proposal of fixing the Guaranteed Acceptance Price at the market price cap does not provide sufficient incentive to be attractive to the majority of consumers as a commercial proposition.</p> <p>For example, studies such as project Shift (the UKs largest smart charging trial run by UKPN with ev.energy, Octopus Energy and Kaluza) have shown that a consumer incentive of ~£50 is needed to incentivise consumer to participate in demand flexibility.</p> <p>Taking the average proposed Guaranteed Acceptance Price of 65p/kWh (£650/MWh) and an estimated real-time turn-down potential of 0.5kW per household, this will generate a total of £3.90 from the 12 one-hour tests. This value needs to be ~10x great to enable compelling consumer propositions and can be achieved by a combination increasing the number and duration of test events and/or the price paid per kWh.</p> <p>Given the proposed testing schedule and guaranteed acceptance price, ev.energy anticipates being able to provide 5MW of flexibility this winter. If the value was increase to ~£50 per participating household, this could increase to &gt;20MW*.</p> <p>*the volumes and prices above are commercially sensitive</p> | <p><b><u>Testing</u></b><br/> Thank you for your feedback supporting our proposal to provide regular tests.</p> <p><b><u>Guaranteed Acceptance Price</u></b><br/> Thank you for your comments on the Guaranteed Acceptance Price for the tests. We have received a range of feedback on the proposed price level from potential providers, which indicates that a GAP level of £2,000/MWh or higher is required to unlock maximum volumes and to meet our aim of making the service viable for this winter.</p> <p>In light of these developments, we intend to increase the GAP from our initial proposal and will share further details once we have this finalised.</p> <p>For the tests, we plan to accept all bids up to the marginal price of balancing energy we would expect to have accepted in the Balancing Mechanism (BM) during the delivery period. If we need to use Demand Flexibility Service, it would be because we have used or expect to use all of our existing services and market incentives. In these circumstances, the GAP and marginal BM price cap on acceptance prices will not apply. We will assess submissions through a pay as bid tender process, with the bids being accepted from low to high until we secure the required volume.</p> |
| <p><b><i>Do you have any other comments on the Demand Flexibility service proposal?</i></b></p>   |   |

**Introduction**

**General**

ev.energy in independent DSR provider with control of >10,000 domestic EV charging assets with registered MPANs. We anticipate being able to contribute 5-20MW of flexibility to the DFS this winter depending on the Guaranteed Acceptance Price. Revenue from DFS is passed back to participating consumers as money off their energy bill / or as a donation of the bill of a person they nominate. We are also talking with a major energy supplier who could help double this volume by November. We would be the DSR provider they recommend to their customers as part of a joint offer. They don't have hourly meter data for the majority of their customers so would rely on us to provide half-hourly metering data from the asset meter.

We are currently participating in the Peak FLEXmarket in California and shifting 90% of EV load away from the 4pm-9pm peak (see graph below). This service has many similarities with DFS and makes us confident we can deliver a valuable service to NGENSO in the UK where we have a larger asset base. We are providing commercial DSO services to UKPN, WPD and SPEN using minute-by-minute asset metering. We are also in the process of registering a SBMU of domestic EV chargers via Flexitricity. We have met all the operational metering requirements including real-time aggregated second-by-second power feed as well as PN forecasting and max & min power available signals. P375 which went live in June 2022 has enabled provider to participate in the BM with using behind the meter assets. The only thing preventing us accessing the BM is the requirement for all MPANs to be Half-Hourly Settled, when currently less than 2% of domestic meters are doing this electively.

**Metering**

**Problems with boundary metering for domestic flexibility**

Half-hourly smart meter data is not yet accessible to most energy suppliers, let alone 3rd party DSR providers. Mandating boundary

**General**

Thank you for the information on your business and the context for your consultation response.

**Metering**

Thank you for your comments and suggestions on how to enable asset vs boundary metering and potential issue of MPAN double counting.

metering for domestic sites will create an artificial barrier to participation for people who have a smart EV charger but not a smart meter that their energy supplier has setup to receive half-hourly data. It will also prevent all DSR providers who are not the incumbent household supplier from providing flexibility services.

We are currently talking with a major energy supplier to form a partnership that could double our flexibility volume by November. We would be the DSR provider they recommend to their customers as part of a joint consumer proposition. They don't yet have hourly meter data for the majority of their customers so would need to rely on ev.energy providing half-hourly metering from the asset terminals to participate in DFS.

**Asset metering solution**

Enabling flexibility services to be metered at the terminals of a domestic Energy Smart Appliance (e.g. smart charge point) is approved for all DSO flexibility services and has already been proven successful without issues of 'gaming'. EV charging can be considered independent of other residential load (i.e. automated turn down of EV charging does not turn on your TV or cooker).

It's also been made possible in the BM since June by P375. As the DFS is supposed to be a 'pathfinder' service to the BM, metering at the asset terminals should be supported / encouraged.

**Metering/double counting**

**Multiple service providers per Meter Point**

Asset metering enables multiple providers to deliver flexibility services from behind a single boundary meter in a transparent/accountable way. Although for the DFS this winter this is not likely to apply to the majority of households/MPANs, this scenario needs to be enabled to unlock the full potential of available domestic flexibility. As an example, there are Octopus Energy customers who have a DSR agreement with ev.energy, which they use to directly optimise and control their EV charging. In this case, the other flexibility potential in their home (e.g.

The Demand Flexibility Service has been rapidly developed to enable demand reduction this winter. The ESO needs to have confidence of the reduction that is being delivered. We have engaged on this topic with industry over the last few months but have not been provided with an appropriate solution we feel mitigates the risks we foresee allowing asset metering or large enough volumes that we feel are necessary to facilitate a change to this service parameter. We are therefore keeping metering at the boundary level for this service.

There is a large difference between services such as STOR/DC and DFS in regard to this. STOR and DC are both dispatched in real-time, and the time of dispatch is essentially unforecastable. This means it is very difficult to react to the dispatch and switch loads around. However with DFS, there is 24 hours notice. This gives an opportunity for example for an electric car user who needed the charger to be zero, they could just plug it in a wall socket and DFS would lose 50% of the volume straight away. The potential financial incentives of this service are far higher than has been used in alternative markets, giving a much stronger incentive for this sort of behaviour than has been seen elsewhere.

Also, to clarify, the requirement is for half-hour metering, not half-hourly settlement.

**Metering/double counting**

As mentioned above thank you for comments, and please see the response on our position regarding asset metering.

We have been engaging with industry and understand that double counting of MPANs is a large risk for some participants with the current design of our service. As we will not be enabling asset metering, we have developed a process that will reduce risks of MPAN double counting.

dishwasher, dryer etc.) is managed by Octopus. There is a simple solution for this that can be implemented for the DFS service:

- Identify where MPANs have been registered by more than one Provider.
- Confirm which assets each Provider is operating (it is only possible for an Energy Smart Appliance like a smart charge point or home battery to be controlled by one DSR provider at a time)
- The DSR Provider submits half-hourly metered volumes for the assets it is controlling behind each MPAN.
- The incumbent energy supplier submits half-hourly metered volumes for the MPAN boundary meter.
- The metered volume from the asset terminals is subtracted from the total response at the boundary meter.

This is a basic version of how P375 works for the Balancing Mechanism and could be managed by NGENSO with a spreadsheet for the DFS. This would generate additional learnings from the trial, which would help to inform the design of future balancing services.

### **Initiation measures**

#### **DFS Initiation Measures**

We fully support the principal of obtaining confirmation of the owner/occupier associated with each Unit Meter Point, however this can be achieved successfully without contacting the consumer and requesting new consent for each event.

ev.energy has a Demand Side Response (DSR) agreement in place with all its customers (owner/occupiers) who opt-in to DSR in exchange for rewards. As per the Smart Charge Point Regs. 2021, customers opt-in by default and are given the ability to opt-out at any time by turning-off smart charging in the app. This is designed to make smart charging easier and improve the customer experience. To ensure reliable delivery, ev.energy can automatically track any customers who opt-out of DSR and contact NGENSO to remove these assets from a bid/DFS Unit.

### **Baselining**

We have outlined a more detailed process for how we will check MPANs and deal with any duplicated registration.

1. Providers must submit all MPANs during the onboarding process. A check is completed.
2. Providers can add and/or remove MPANs on a weekly basis, a template will be shared. This will need to be submitted alongside the Weekly Indicative Forecast. A check and review of all MPANs to ensure there are no duplications will be completed.
3. If a match is found both parties will be notified, and the MPAN is removed from the service.
4. Providers will be required to provide evidence of agreement with their customer, which the ESO will review.
5. MPANs can only be used once ESO has confirmed acceptance of evidence.

We need to demonstrate we are taking action to mitigate the risk of gaming and double counting, whilst providing sufficient clarity to providers to ensure we maximise volume.

### **Initiation measures**

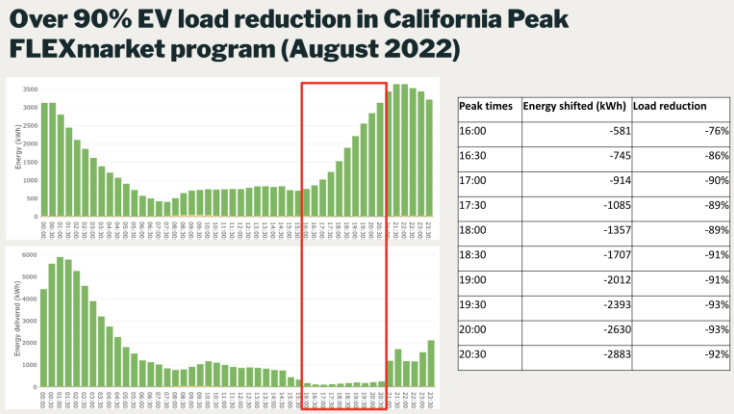
We require the DFS Initiation Measures process as this provides the certainty that we will receive delivery of the accepted bid. On the day of the event providers are required to submit an updated forecast which should be based on the acceptances from their customers that will actively be participating. If the ESO does not have this then there is a risk there could be a huge disparity between forecasted and actual volumes.

We understand there is a difference between 'active' turn-down and where assets are optimised through automated deployment of a signal. These providers will need to provide the ESO with the acceptances of their customers who have allowed the company to optimise their assets at anytime through the period of the service. We would expect these providers to keep details of when this signal was sent to provide evidence they had done so in response to our requirements.

**Baselining**

The P376 baselining methodology is not the most accurate/suitable for measuring domestic flexibility, however given the speed at which the DFS needs to be rolled out, we are supportive of its use alongside continued discussions on how it can be improved upon as the service is further developed. An example of effective baselining methodologies that have been approved by the California Public Utilities Commission include aggregated population-level Normalised Metered Energy Consumption (NMEC), which in future might be a more suitable alternative.

The proposed in-day baseline adjustment for residential loads is not well suited to EV charging flexibility given that in general this load is not weather sensitive, and bids will be accepted day-ahead. We have worked with utilities like Silicon Valley Clean Energy in California to combine automated smart charging with behavioural nudges to improve the consumer experience. This includes encouraging people to charge the day before a grid event to shift as much load as possible away from the service window. In this case, an in-day adjustment would be counterproductive, however I can see how it may benefit other weather sensitive loads like electric heating. My recommendation would be for the in-day adjustment to be optional, with suitability assessed on a case-by-case basis based on whether an in-day baseline adjustment would incentive positive behaviour.



Providers will be expected to state the 'delivery method' of their initiation measures when they register for this service. The way in which providers do this will not be stipulated by the ESO.

**Baselining**

Thank you for your comments and feedback on the baselining methodology, we are glad you agree that this service has been rapidly developed and that the baselining methodology is suitable in this instance.

As this baseline methodology has been previously agreed with Ofgem in another context and we have developed this service rapidly we will not be considering changing the baseline methodology we will be using (BSC P376 'Utilising a Baselining Methodology to set Physical Notifications' with an in-day adjustment for domestic consumers).



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| <p>Ohme<br/>Operations<br/>UK Ltd</p> | <p><b><i>Do you agree with the proposal for the Demand Flexibility Service?<br/>Please provide rationale</i></b></p> <p><b><u>General</u></b><br/>No. We disagree with several proposals including: - Restricting participation to only those parties with access to Boundary Metering, limiting participation only to consumers with a smart meter, (SMETS2), the commercially unattractive Guaranteed Acceptance Price being offered, and the Baseline methodology which ensures that EV drivers aren't adequately rewarded for their participation.</p> <p><b><u>Metering</u></b><br/><b>Boundary Metering vs Asset Metering</b></p> <p><b>EVSE can provide 15x more flexibility than measured consumer behaviour</b>, (7.4kWh vs the 0.51kWh recognised in the recent Octopus / NGENO turn down trial). Unlike I &amp; C flexibility customers, which may have multiple assets behind a single meter, domestic customers are currently unlikely to have multiple devices behind the meter, other than a home charger, which can make a material difference, (15x) to the flexibility provided for an individual household.</p> <p>With 600k Battery Electric Vehicles forecast to be registered by the winter, (<a href="https://www.smmmt.co.uk/2022/08/uk-new-car-and-van-forecast-july-2022/">https://www.smmmt.co.uk/2022/08/uk-new-car-and-van-forecast-july-2022/</a>), and with c. 420k drivers having access to a home charger, (<a href="https://es.catapult.org.uk/report/on-street-parking-and-electric-vehicles/">https://es.catapult.org.uk/report/on-street-parking-and-electric-vehicles/</a>), this UK 'fleet' provides a huge opportunity for domestic flexibility during the next 6 months.</p> <p>Whilst Ohme data suggests 50% of drivers charge 'smartly' with an Intelligent or Time of Use tariff, 50% are on SVT or Fixed Price tariffs, therefore capable of providing 'turn down' during peak hours without detriment to the driver. With EV drivers typically charging 2.4 times per week, (35%), this EV market could</p> | <p><b><u>General</u></b><br/>Thank you for responding to the consultation, please see the individual responses to all of your feedback.</p> <p><b><u>Metering</u></b><br/>Thank you for your comments and suggestions on how to enable asset vs boundary metering.</p> <p>The Demand Flexibility Service has been rapidly developed to enable demand reduction this winter. The ESO needs to have confidence of the reduction that is being delivered. We have engaged on this topic with industry over the last few months but have not been provided with an appropriate solution we feel mitigates the risks we foresee allowing asset metering or large enough volumes that we feel are necessary to facilitate a change to this service parameter. We are therefore keeping metering at the boundary level for this service.</p> <p>There is a large difference between services such as STOR/DC and DFS in regard to this. STOR and DC are both dispatched in real-time, and the time of dispatch is essentially unforecastable. This means it is very difficult to react to the dispatch and switch loads around. However with DFS, there is 24 hours notice. This gives an opportunity for example for an electric car user who needed the charger to be zero, they could just plug it in a wall socket and DFS would lose 50% of the volume straight away. The potential financial incentives of this service are far higher than has been used in alternative markets, giving a much stronger incentive for this sort of behaviour than has been seen elsewhere.</p> |
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potentially provide over 500MW of turn down flexibility across the UK. (7.4kW x 420k x 35% x 50%)

To enable EV smart charging platforms to maximise this potential volume, **direct access via Asset Metering is required**. The alternative, forcing integrations and contracts with each individual supplier in control of the meter, will require significant time and investment to bring to market, resulting in this opportunity being missed.

### **Smart Meter Participation**

With only 50% of UK households having access to a smart meter, the potential volume, (above), will be reduced further if non-smart customers are excluded.

If Asset Metering was included, **HH data could be provided by Ohme at a household level** providing NGESO with the visibility and granularity of data required.

In addition, most EV home chargers installed to date are 'dumb', requiring direct customer intervention to provide any flexibility, with limited data from the EVSE for NGESO purposes. Ohme's smart cables could be offered to all 'dumb' charger households quickly providing the data granularity required, enabling automated smart charging to take place, alongside location of the household via GPS.

### **Guaranteed Acceptance Price**

#### **Unattractive Guaranteed Acceptance Price**

The GAP of only £520MWh (Nov – Dec) and c. £760MWh (Jan – Mar) is not sufficient to provide an attractive reward, (c. £3.80 max for a typical 7.4kWh delayed charge to be split between Consumer and Provider).

### **Guaranteed Acceptance Price**

Thank you for your comments on the Guaranteed Acceptance Price for the tests. We have received a range of feedback on the proposed price level from potential providers, which indicates that a GAP level of £2,000/MWh or higher is required to unlock maximum volumes and to meet our aim of making the service viable for this winter.

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|              | <p>With tech development required to fulfil this programme in the next two months, and a significant marketing programme and associated cost needed to communicate, educate, and engage customers with this new initiative, the available commercial potential makes this an unattractive proposition as it stands.</p> <p><b><u>Baselining</u></b><br/> <b>Baseline Methodology</b><br/> Given that consumers typically only charge once every 3 days, the baselines proposed do not reflect the actual flexibility being delivered by a driver choosing to ‘turn down’ on those planned events.</p> <p>This further limits the attractiveness of the consumer proposition, resulting in lower engagement and uptake, lower flex delivered and lower commercial returns for participating providers.</p> | <p>In light of these developments, we intend to increase the GAP from our initial proposal and will share further details once we have this finalised.</p> <p><b><u>Baselining</u></b><br/> Thank you for your comments and feedback on the baselining methodology.</p> <p>The Demand Flexibility Service has been rapidly developed to enable demand reduction this winter. Our baseline proposals are the following: We propose to use the methodology set out in BSC P376 'Utilising a Baselining Methodology to set Physical Notifications' with an in-day adjustment for domestic consumers. This methodology has been previously approved by Ofgem in another context, we will not be considering changing the baselining methodology for the Demand Flexibility Service.</p> |
|              | <p><b><i>Do you agree with our proposal to introduce both onboarding and regular monthly tests to provide confidence the service will be commercially viable? Please provide rationale</i></b></p> <p><b><i>Do you agree with our proposals as part of testing to introduce a Guaranteed Acceptance Price? Please provide rationale</i></b></p> <p><b><u>Testing</u></b><br/> Whilst the rationale for the 12 tests is sound, limiting run time to 1 hour will limit the guaranteed commercial returns available.</p> <p><b><u>Guaranteed Acceptance Price</u></b><br/> The principle of having a GAP to provide certainty of return is sound. However, as stated above, these levels are not currently attractive.</p>   | <p><b><u>Testing</u></b><br/> Thank you for your agreement on the number of tests. The reason we have set the test requirement at one hour is because it is the balance we have found between the reasonable duration we think end consumers (especially domestic ones) can do and our system requirement, as well as cost we need to spend.</p> <p><b><u>Guaranteed Acceptance Price</u></b><br/> Thank you for your comments, please see above response. As mentioned, we are reviewing what we feel it is beneficial to increase the GAP to following industry feedback.</p>   |
| Flexitricity | <p><b><i>Do you agree with the proposal for the Demand Flexibility Service?</i></b><br/> <b><i>Please provide rationale</i></b></p>   |   |

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| <p><b><u>Initiation measures</u></b></p> <p>Yes, we agree with the principles and necessity of the service. This winter presents a number of challenges, and it is reasonable to assume that margins are tighter than those forecast in the early Winter Outlook. Therefore new interventions are needed to support security of supply.</p> <p>Ahead of this Winter, it is imperative that we unlock domestic and I&amp;C to provide DSR, and support the development of the market in this area. DFS should therefore be designed in such a way as to incentivise maximum participation.</p> <p>It is important to distinguish between dispatchable DSR from 'nudge' DSR. Dispatchable DSR is set to be ready for an electronic dispatch signal which causes direct load reduction. Electronic interfaces also allow monitoring and forecasting of specific instructible assets, like EV chargepoints and heat pumps. 'Nudge' DSR is not directly dispatched, instead relying on energy users to take action themselves upon receipt of emails and text messages (the 'nudge'). The availability of such DSR must be estimated, as real-time asset-level electronic interfaces are not in place.</p> <p>There is a role for both dispatchable and 'nudge' DSR, but service design should recognise these differences. In general, there should be different markets and prices for each. This may not be practical within DFS timelines, but at a basic level DFS should not be designed to favour 'nudge' over dispatchable DSR.</p> <p>Therefore alongside the development of this service, it is important to continue addressing barriers to entry in BAU services – the balancing mechanism, the wholesale market, and balancing services. These allow reliable, dispatchable domestic and I&amp;C capacity to develop track record in supporting the system in normal times, so that they are ready for future periods of stress.</p> | <p><b><u>Initiation measures</u></b></p> <p>We require the DFS Initiation Measures process as this provides the certainty that we will receive delivery of the accepted bid. On the day of the event providers are required to submit an updated forecast which should be based on the acceptances from their customers that will actively be participating. If the ESO does not have this then there is a risk there could be a huge disparity between forecasted and actual volumes.</p> <p>We understand there is a difference between 'active' turn-down and where assets are optimised through automated deployment of a signal. These providers will need to provide the ESO with the acceptances of their customers who have allowed the company to optimise their assets at anytime through the period of the service. We would expect these providers to keep details of when this signal was sent to provide evidence they had done so in response to our requirements.</p> <p>Providers will be expected to state the 'delivery method' of their initiation measures when they register for this service. The way in which providers do this will not be stipulated by the ESO.</p> <p>We will continue to look at how we can remove barriers to entry from our existing markets.</p> |
| <p><b><i>Do you agree with our proposal to introduce both onboarding and regular monthly tests to provide confidence the service will be commercially viable? Please provide rationale</i></b></p>   |  |

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| <p><b><i>Do you agree with our proposals as part of testing to introduce a Guaranteed Acceptance Price? Please provide rationale</i></b></p> <p><b><u>Guaranteed Acceptance Price</u></b><br/> Yes – we agree with a known number of tests to provide a degree of revenue certainty. However, the volumes need to have an appropriately high price to attract customers to the service. The GAP is too low, and will not succeed in attracting maximum volumes of DSR. The GAP should be at least £2.<br/> The GAP and the number of utilisations together should work as a Participation Payment for customers.</p>   | <p><b><u>Guaranteed Acceptance Price</u></b><br/> Thank you for your comments on the Guaranteed Acceptance Price for the tests and agreement with the number of tests. We have received a range of feedback on the proposed price level from potential providers, which indicates that a GAP level of £2,000/MWh or higher is required to unlock maximum volumes and to meet our aim of making the service viable for this winter.</p> <p>In light of these developments, we intend to increase the GAP from our initial proposal and will share further details once we have this finalised.</p>  |
| <p><b><i>Do you have any other comments on the Demand Flexibility service proposal?</i></b></p> <p><b><u>Metering</u></b><br/> <b><u>Asset metering</u></b><br/> It is important that asset metering is allowed in the service, without requiring agreement from the supplier involved. Not allowing asset meters will exclude aggregators from a large number of customers, substantially reduce the total volumes made available, and undermine the principles in the European Balancing Guidelines and the Balancing Mechanism (BM). In the context of DFS, ‘asset metering’ means metering consumption directly at the asset delivering the service. This is the form of metering used in balancing services such as STOR and Dynamic Containment.<br/> We point out that non-BM STOR has relied entirely on asset meters since it was introduced over 15 years ago. Assets delivering STOR have included industrial load such as refrigeration, compression, liquefaction and greenhouse lighting, alongside behind-the-meter generation such as combined heat and power (CHP) and standby generators. Front-of-meter assets such as small hydro and biomass have also delivered STOR using non-BM asset metering. In none of these cases was boundary metering used.</p> | <p><b><u>Metering</u></b><br/> Thank you for your comments and suggestions on how to enable asset vs boundary metering.</p> <p>The Demand Flexibility Service has been rapidly developed to enable demand reduction this winter. The ESO needs to have confidence of the reduction that is being delivered. We have engaged on this topic with industry over the last few months but have not been provided with an appropriate solution we feel mitigates the risks we foresee allowing asset metering or large enough volumes that we feel are necessary to facilitate a change to this service parameter. We are therefore keeping metering at the boundary level for this service.</p> <p>There is a large difference between STOR/DC and DFS in regard to this. STOR and DC are both dispatched in real-time, and the time of dispatch is essentially unforecastable. This means it is very difficult to react to the dispatch and switch loads around. However with DFS, there is 24 hours notice. This gives an opportunity for example for an electric car user who needed the charger to be zero, they could just plug it in a wall socket and DFS would lose 50% of the volume straight away. The potential financial incentives</p> |

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| <p>Dynamic Containment is largely delivered using front-of-meter batteries, but some of the capacity is in fact delivered using behind-the-meter batteries located at industrial sites with diverse loads. In these locations, boundary metering is not used to measure DC delivery; only asset metering can do this with sufficient accuracy.</p> <p>There is therefore a strong track record for the use of asset meters in critical balancing services. Notably, these asset meters are used without reference to the relevant boundary meter data, other than in ESO maintaining a list of MPANs associated with participating sites.</p> <p>In the future, we would expect the asset metering role to be delivered using the P375 definition of asset metering in the BSC. As P375 was implemented only in July 2022, market support for this is not sufficiently advanced for it to be used explicitly in DFS this winter.</p> <p>The track record in STOR and DC shows that any risks associated with asset metering are already well within ESO's acceptable boundaries. Furthermore, DFS excludes capacity which participates in these services, which means that the types of sites which will come forward do not naturally have any means of gaming the asset metering signals.</p> <p>In particular, Flexitricity would use asset metering to bring forward the following asset types:</p> <ul style="list-style-type: none"> <li>• Domestic EV chargers – homeowners do not fit multiple EV chargers and therefore do not have the option to shift load away from one asset meter to another. Flexitricity's portfolio of domestic EV chargers are all dispatchable, which makes it impractical for homeowners to find some other means to charge their cars at the time of an event. On the other hand, 'nudge' dispatch, which is associated with boundary metering and dispatched by advance email or text, gives homeowners time to move their vehicles to public chargepoints, negating service delivery.</li> <li>• Retail refrigeration – it is not feasible for retailers to move stock from one refrigeration pack to another in order to allow one asset-metered fridge to have its load reduced at the expense of another. Such a move would be extremely</li> </ul> | <p>of this service are far higher than has been used in alternative markets, giving a much stronger incentive for this sort of behaviour than has been seen elsewhere.</p> |
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|  | <p>disruptive in a retail environment and would make it impossible for retailers to monitor the coolchain history of products for food safety purposes.</p> <ul style="list-style-type: none"> <li>• Greenhouse growlights – we work with greenhouses comprising many hectares of space under glass. In winter, growlights are used extensively – two sites alone can provide 22MW of load reduction. Both the lights and the crop are static; there is no practical way to move plants to a lit area of a greenhouse.</li> </ul> <p>If sites do exist which have sufficient spare production capacity to shift production away from an asset-metered line, it is nevertheless clear that such an action would constitute fraud. The potential consequences of this will substantially exceed any possible gain from DFS. Such sites are by definition large, and are likely to be already participating in balancing services and the CM.</p> <p>If ESO is concerned about production shifting between different asset meters, we would urge them to provide evidence for this view.</p> <p>Aggregators do not have access to boundary meter data for domestic properties. They do not receive SMETS data, and provisions in the SEC for consent for information sharing are not actively used in the market. It is not practical to activate these provisions ahead of DFS. Aggregators' access to such data for SMEs is limited by existing arrangements which the site may have with their Supplier.</p> <p>Requiring the co-operation of the Supplier (in order to obtain boundary metering data) puts independent aggregators at a competitive disadvantage in the market, and reduces the dispatchable volume and the total volume which will come forward under DFS. Under the P344 arrangements, which allow VLPs access to the BM, there is no requirement for information to be passed to the Supplier. This was put in place to prevent Suppliers from exercising 'soft power' to stifle competition and growth in flexibility markets.</p> <p>The time needed ahead of go-live means that it would not be practical to have commercial agreements in place ahead of this time.</p> |  |
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A simple solution will resolve the key issues ahead of the deployment of DFS this winter. ESO should:

1. Require providers to declare MPANs associated with participating sites;
2. Require providers to declare whether they are using boundary or asset metering; and
3. Require providers to declare whether assets are dispatched by direct electronic signal to the asset.

Double counting between asset and boundary meters can be prevented by identifying matches, and where a match exists, setting out 'primacy rules' for which meter has precedence. We believe that asset meters should have precedence as they are associated with dispatched (and therefore more reliable) capacity. Volumes of delivery calculated for asset meters should then be deducted from volumes calculated for the directly-associated boundary meters. This is a simple calculation. The data volumes involved are no more challenging than they will be anyway, since per-site half-hourly data (whether asset or boundary) must be collected in any case.

If additional analysis resource is required by ESO to conduct this task, ESO should bear in mind the saving to the consumer that can be delivered by demand response. Experience during the Californian crisis of 2001 showed that a 5% reduction in peak load could reduce peak prices by 50% (see Eric Hirst and Brendan Kirby, "Retail Load Participation in Competitive Wholesale Electricity Markets", prepared for the Edison Electric Institute and the Project for Sustainable FERC Energy Policy, January 2001). This does not take account of the economic damage associated with blackouts.

**ABSVD**

**ABSVD**

We suggest that this should be optional, as has been the case in the past for non-BM assets (and in the case of FFR, still is the case for all assets).

Making ABSVD optional could allow greater volumes of I&C customers to participate, as many supply contracts may not be compatible with applying ABSVD. Applying ABSVD to all half-

**ABSVD**

Thank you for your comments. The intention is to apply Applicable Balancing Services Volume Data (ABSVD) to HH-settled volume at the BMU Supplier level in aggregate not at individual MPAN level, and we will not apply ABSVD to non-HH settled volume, due to the complexity of the data and processes, and the smaller proportional impact on load-profiled demand.



hourly sites does not necessarily result in more accurate settlement; it is more likely to result in hostility to DFS from Suppliers as they are subject to costs which they cannot recover from their customers. This will, in turn, reduce the number of elective half-hourly customers in the market, as the uneven application of ABSVD creates an incentive to revert to non-half-hourly.

It is easier to introduce ABSVD to a service in a managed process which respects contract lengths and can therefore be built into electricity supply agreements.

### **Pay-as-bid**

#### **Pay-as-clear pricing**

After the tests, pay-as-clear pricing should apply to the service. This is the appropriate approach as it is a nation-wide homogeneous service, and will allow for price discovery. Pay-as-bid is appropriate where there are different kinds of services procured (like in the BM) or where there are market power concerns. However, neither of these things apply in the DFS service.

### **Metering – further annex from Flexitricity**

#### **Annex – further detail on Asset Metering proposal**

The basis of the solution is simple: all providers must declare the MPAN associated with the participating site, whether they are using boundary or asset metering. Double counting begins by identifying the matches.

The second step is to determine what to do if a match is found.

There are three possible approaches:

- a) Boundary meter has primacy – if the MPAN appears twice, the boundary meter is admitted and the asset meter is not.
- b) Asset meter has primacy – if the MPAN appears twice, the asset meter is admitted and the boundary meter is not.
- c) Delivered volumes calculated for the asset meter are deducted from delivered volumes calculated for the boundary meter. This is what happens in P344 (BM Wider Access).

The choice between (a) and (b) should be based on the quality of delivery. We favour (b) because asset metered sites will normally

### **Pay-as-bid**

Thank you for your comments on pay-as-bid vs pay-as-clear. ESO ran the Herfindahl–Hirschman Index (HHI) analysis based on data derived from suppliers and aggregators volume survey feedback. HHI is the index to measure the market concentration. Generally, a market with an HHI of less than 1,500 is considered a competitive marketplace in which a single participant's joining or leaving won't cause a drastic change in the market price. According to the result of HHI analysis, in most cases, the HHI is bigger than 1500 especially during the morning and evening peaks when this Demand Flexibility Service is most likely to be needed. This demonstrates the Demand Flexibility market is expected to be a moderately concentrated market and the competitive market criteria of applying uniform market price (i.e. Pay-as-clear) has not been met. Therefore, the Pay-as-bid is recommended to be used as the payment mechanism as it will be a more efficient mechanism for DFS market.

Moreover, different end consumers may require different incentives to provide this service. It is unlikely that the price required for I&C customers and domestic customers will be the same. Pay- as-bid allows providers to tailor their incentives based on their customer base and overall strategy. There is also a risk that the cost differential between bids would be significant. Pay-as-clear may result in an extremely large cost increase. As this service is a time limited non- commercial service, the benefit of higher clearing costs in signalling market investment would not be realised over the length of the product's operation.

### **Metering – further annex from Flexitricity**

Thank you for your further comments on asset vs boundary metering, please see the response above on our position regarding asset metering.

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|         | <p>be directly dispatched, and it is our strong view that directly dispatched sites are much more reliable than sites which do not have direct dispatch. Moreover, sites with direct dispatch are more likely to be present in availability forecasts which are explicitly calculated for the site based on actual conditions. Availability forecasts for other sites will tend to be statistical across a population of sites.</p> <p>Option (c) is best, however, because there may be sites where a provider with dispatch capability accesses specific hardware (EV chargepoint, for example) while the supplier uses behavioural approaches (“nudges”) to influence choices (for example, to defer running the washing machine). Option (c) allows both to participate.</p> <p>Volumes from Asset Meters should then be subtracted from volumes of Boundary Meters to provide NGENSO an accurate view of available volumes.</p> <p>Regarding major I&amp;C sites, it is important to note that some sites have more than one feeder with more than one MPAN. Boundary metering does not deal with the risk of switching between supply points, which such large customers are able to do. At these large sites, boundary metering does not prevent gaming.</p> |   |
| The ADE | <p><b><i>Do you agree with the proposal for the Demand Flexibility Service?<br/>Please provide rationale</i></b></p> <p><b><u>General</u></b><br/>As from the beginning, the ADE supports the development of this service.</p> <p>We praise the ambitious timeline and appreciation that services beyond the standard package may be necessary for what is set to be a historically difficult winter.</p>   | <p><b><u>General</u></b><br/>Thank you for your feedback in regards to the development of this service.</p> |
|         | <p><b><i>Do you agree with our proposal to introduce both onboarding and regular monthly tests to provide confidence the service will be commercially viable? Please provide rationale</i></b></p>  |   |

***Do you agree with our proposals as part of testing to introduce a Guaranteed Acceptance Price? Please provide rationale***

**Guaranteed Acceptance Price**

We agree with the proposal for onboarding and ongoing tests and the rationale behind it. However, the rationale behind the guaranteed acceptance price and where it has been set poses a serious threat to both the commercial viability of the service and the public perception as to the value they're receiving. Thus, we welcome the recent communication that the test price is being revised, namely for the reasons below.

On the former, at the presently proposed price, the revenue certainty suppliers can offer domestic customers for their participation in all twelve tests is low meaning the confidence that customers would sign up is low and therefore many suppliers, even those familiar with DSR, are unlikely to invest in publicising and rolling out the trial to customers. This is especially true for a winter that has many other pressing concerns facing suppliers.

On the latter point regarding public perception, this has possibly more lasting impacts for DSR as a burgeoning industry. Given this is a first of its kind trial, coming at a time when energy-related news is in the spotlight, the chances of long-term reputational damage for the sector if it is perceived to be of little monetary value to consumers is high. Furthermore, it may deter many, both those participating and those not, from turning to DSR services in the future.

For all the reasons above, it does not seem that raising the number tests is advisable but rather the price of those tests should be increased to £3/kWh.

We recognise that the scope and intentions have changed with the rapidly moving landscape and that the higher price for tests originally floated were at a time when ESO did not expect the service to be used for a real event. It is now our understanding

**Guaranteed Acceptance Price**

Thank you for your comments on the Guaranteed Acceptance Price for the tests. We have received a range of feedback on the proposed price level from potential providers, which indicates that a GAP level of £2,000/MWh or higher is required to unlock maximum volumes and to meet our aim of making the service viable for this winter.

In light of these developments, we intend to increase the GAP from our initial proposal and will share further details once we have this finalised.

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| <p>that new forecasting indicates the DFS may be used in real-world scenarios. With prices for such events expected to be higher, it is understandable that ESO has sought to reduce the test price. However, this does not change the commercial case for providers, especially in domestic settings. Without the ability to guarantee revenue certainty to their customers and already under extreme scrutiny, providers will not want to offer speculative packages to households. Therefore, the only guaranteed package that can be offered is the cumulative value of the test runs and as above, this is not an attractive product.</p>   |   |
| <p><b><i>Annex 1: Do you have any comments on the highlighted mapping for the Demand Flexibility service?</i></b></p> <p><b><u>Baselining</u></b><br/>The ADE strongly supports the use of the P376 solution for baselining and the removal of in-day adjustments for I&amp;C customers. We encourage ESO to look at expanding this tweak to other services where P376 is in use.</p> <p><b><u>Metering</u></b><br/>With regard to metering, we are cognisant of ESO’s concerns about the potential for gaming and double-counting with asset level meters.<br/><br/>However, we would propose that asset level metering be allowed in the service terms but with specific implementation measures (eg MPAN disaggregation, audits) to reduce this risk.</p> <p><b><u>Comms</u></b><br/>Finally, the requirement to have NGESO approve the marketing/branding of the service to customers is an unusual inclusion with no explanation. Such approval could seriously delay the onboarding of customers. Therefore, it should either be removed or much more substantive justification given.</p> | <p><b><u>Baselining</u></b><br/>Thank you for your feedback supporting our proposal to use the P376 methodology for our Baseline requirements.</p> <p><b><u>Metering</u></b><br/>The Demand Flexibility Service has been rapidly developed to enable demand reduction this winter. The ESO needs to have confidence of the reduction that is being delivered. We have engaged on this topic with industry over the last few months but have not been provided with an appropriate solution we feel mitigates the risks we foresee allowing asset metering or large enough volumes that we feel are necessary to facilitate a change to this service parameter. We are therefore keeping metering at the boundary level for this service.</p> <p><b><u>Comms</u></b><br/>The ESO has edited clause 4.5 of the Procurement Rules to better clarify our intention. We will be creating shared Communication Principles that we would like providers to use when marketing the product and discussing with consumers. The intention of this clause is to ensure the service is talked about consistently with external audiences and named appropriately. We will look to discuss this further at the industry Working Group ahead of the launch.</p> |
| <p><b><i>Do you have any other comments on the Demand Flexibility service proposal?</i></b></p>  |   |

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| <p><b><u>Guaranteed Acceptance Price</u></b><br/>As above, the ADE has clear worries about the price per test given this is the only guaranteed revenue. Without adequate test pricing, ESO will likely not attract the capacity volumes to onboard that it hopes to use for real-world events.</p> <p><b><u>Regulation</u></b><br/>It is also worth investigation whether further investment could be garnered for the service if it comes within the remit of Ofgem’s Response on the Balancing Market Review and Winter Preparedness and the potential mitigators contained therein. If this service can help in avoiding unwanted behaviours in the balancing mechanism as is a core aim, then this would prove useful to all parties.</p> <p><b><u>Order of actions</u></b><br/>Finally, the definition of the trigger point for this service to be called must be better enumerated and justified. What prices need to be reached in other services in order for a Service Requirement to be issued and will parties be able to bid above the prices accepted in other services if so? Clarifying the exact parameters for calling an event and how this impacts pricing will be essential to ensure fairness and transparency.</p> <p><b><u>EUK Working Group</u></b><br/>Finally and in summary, we support the proposals made by the DFS Workgroup, namely to:</p> <ul style="list-style-type: none"> <li>- Have a higher guaranteed acceptance price of £3/kWh</li> <li>- Release analysis on how frequent and for what duration the service would have been used last winter</li> <li>- Run a test event to investigate how the bidding process will work</li> <li>- Provide a fuller explanation as to why pay-as-clear was ruled out</li> </ul> <p>Begin work to make asset metering acceptable in future iterations of the service</p> | <p><b><u>Guaranteed Acceptance Price</u></b><br/>Thank you for your feedback. This has been answered above.</p> <p><b><u>Regulation</u></b><br/>We look to design all our products, including DFS, in line with the current market arrangements in the BM and the broader regulatory and legislative framework. This ensures our products promote competition with low barriers to entry, and operate in an economic and efficient manner. Our BM Review and Ofgem’s investigative work identified a number of potential interventions to improve existing market arrangements to ensure they deliver in consumers’ interests. Whilst we try to “future proof” our product design, should any future regulatory changes require modifications to DFS, then we will implement these as required.</p> <p><b><u>Order of actions</u></b><br/>The Order of actions that the ESO will take was shared during the ESO Autumn Markets Forum on 28th September 2022. The link to slides can be found below and are on slide 8:<br/><a href="https://www.nationalgrideso.com/document/268021/download">https://www.nationalgrideso.com/document/268021/download</a></p> <p><b><u>EUK Working Group</u></b><br/>Thank you for your comments. We have responded to your comments on the Guaranteed Acceptance Price and enabling asset metering above.</p> <p>We understand the need for providers to have more details with regards to the number of times the service might be called upon, and, following the recent publication of the Winter Outlook Report, we will be sharing a DFS requirements paper with this information.</p> <p>We are in the process of running a number of trials with industry providers to test the end to end Demand Flexibility Service process for both industry and the ESO.</p> <p><b><u>Pay-as-bid</u></b><br/>ESO ran the Herfindahl–Hirschman Index (HHI) analysis based on data derived from suppliers and aggregators volume survey</p> |
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|     |  | <p>feedback. HHI is the index to measure the market concentration. Generally, a market with an HHI of less than 1,500 is considered a competitive marketplace in which a single participant's joining or leaving won't cause a drastic change in the market price. According to the result of HHI analysis, in most cases, the HHI is bigger than 1500 especially during the morning and evening peaks when this Demand Flexibility Service is most likely to be needed. This demonstrates the Demand Flexibility market is expected to be a moderately concentrated market and the competitive market criteria of applying uniform market price (i.e. Pay-as-clear) has not been met. Therefore, the Pay-as-bid is recommended to be used as the payment mechanism as it will be a more efficient mechanism for DFS market.</p> <p>Moreover, different end consumers may require different incentives to provide this service. It is unlikely that the price required for I&amp;C customers and domestic customers will be the same. Pay- as-bid allows providers to tailor their incentives based on their customer base and overall strategy.</p> <p>There is also a risk that the cost differential between bids would be significant. Pay-as-clear may result in an extremely large cost increase. As this service is a time limited non- commercial service, the benefit of higher clearing costs in signalling market investment would not be realised over the length of the product's operation.</p> |
| EON | <p><b><i>Do you agree with the proposal for the Demand Flexibility Service?</i></b><br/> <b><i>Please provide rationale</i></b></p> <p><b><u>General</u></b><br/> We agree that NGESO should investigate customers' appetite for reducing consumption this winter through the Demand Flexibility Service. Domestic flexibility has long been seen as a key part of the 'new world' with NGESO's Future Energy Scenarios suggesting 6-9GW of domestic flexibility by 2050. As such, E.ON are keen to be a part of delivering this flexibility to the system and playing our part in delivering Net Zero alongside our customers. We feel that a service like the Demand Flexibility Service will help</p> | <p><b><u>General</u></b><br/> Thank you for your feedback and support in regard to the development of this service.</p>   |

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|  | <p>all consumers see that they can be a part of the energy system and not just on the receiving end of decisions.</p> <p>We know that demand side response can deliver significant quantities of load shifting when the system needs it. For many years, Triad avoidance has delivered 1-2GW of I&amp;C load shifting at times of system stress. We believe that as long as the incentives are material enough, there is no reason to believe that all customers will not be able to offer similar actions. Trials run by NGESO and Octopus have been testimony to this.</p>  |  |
|  | <p><b><i>Do you agree with our proposal to introduce both onboarding and regular monthly tests to provide confidence the service will be commercially viable? Please provide rationale</i></b></p> <p><b><i>Do you agree with our proposals as part of testing to introduce a Guaranteed Acceptance Price? Please provide rationale</i></b></p> <p><b><u>Testing</u></b></p> <p>We agree wholeheartedly with NGESO's proposal to run both onboarding and regular monthly trials for this new service. We agree wholeheartedly with NGESO's proposal to run both onboarding and regular monthly trials for this new service. Participating suppliers and aggregators will need to recoup material set-up and marketing costs to ensure that the service runs as smoothly as possible from a customer's perspective and therefore need assurance that there will be sufficient activation of this service to make it commercially viable. For marketing purposes, suppliers and aggregators need to be able to offer a minimum level of benefit for a customer, especially if that customer will experience lost revenue from taking action to reduce demand. Therefore, from both a customer and provider point of view, it is essential to have the guarantee of a known number of activations.</p> | <p><b><u>Testing</u></b></p> <p>Thank you for your feedback supporting our proposal to provide onboarding and monthly tests.</p> |

**Guaranteed Acceptance Price**

In terms of the introduction of a Guaranteed Acceptance Price (GAP), we again wholeheartedly agree with the concept. Customers and providers need to have certainty in a minimum level of revenue in order to make sensible commercial decisions as whether to take part in the service ahead of the service becoming active. However, we do not believe that setting the GAP at the level of the price cap (£520/MWh in Nov/Dec, £780/MWh Jan-Mar) sufficiently values customers' demand. NGENSO have already made clear that the Demand Flexibility Service is being seen as a last resort measure. By very definition of a last resort measure, the value assigned to its demand should exceed that seen in the wholesale market, the Balancing Market or any other services that NGENSO have used in order to try to balance the system. Asking customers to reduce load seems to be the very definition of a price scarcity event and as such we believe that customers should be reward as such. We would therefore propose a GAP of £3k/MWh. We acknowledge that NGENSO are now allowing providers to bid higher than the GAP for a test event, but without a guarantee of being called, we believe that a customer-centric provider will not take the risk with their customer's demand by bidding higher than the GAP.

Therefore, we would ask NGENSO to review their proposal for the level of the GAP again. We appreciate that NGENSO are trying to keep costs down for all customers, but without a material benefit to taking action, customers are likely to ignore this service i.e. if a typical domestic customer can reduce demand by 1kW over a 1hour window, they can earn a maximum of 52p in Nov/Dec. We do not believe that this is a sufficient level to engage customers. If customers do not engage, then NGENSO will be forced to accept even higher offers in the BM in order to balance the system. Given that we are talking about system stress events, BM prices last year exceeded £2000/MWh for 10 half hour periods. This was prior to the start of the current energy crisis. Therefore, we reiterate our request that NGENSO review the level of the GAP.

**Guaranteed Acceptance Price**

Thank you for your comments on the Guaranteed Acceptance Price for the tests. We have received a range of feedback on the proposed price level from potential providers, which indicates that a GAP level of £2,000/MWh or higher is required to unlock maximum volumes and to meet our aim of making the service viable for this winter. In light of these developments, we intend to increase the GAP from our initial proposal and will share further details once we have this finalised.



***Do you have any other comments on the Demand Flexibility service proposal?***

Other concerns that we would like to raise regarding the Demand Flexibility Service are:

1. We would suggest that the scheme be a pay as clear scheme rather than a pay as bid scheme as this will be a better incentive for participation in a FOAK scheme. If used on a more enduring basis we could see the need to revert to pay as bid as it became more mature
2. If we submit 5x100MW bids all at the same bid price, but only 3 are accepted, we believe that we should send an acceptance message to all of our customers rather than choosing which 300MW are the 'lucky ones' on a fairness level. ESO will not be able to treat this service as individual power stations.
3. The need to achieve sign off from the ESO for "dispatch initiation" as described in 4.3 (and leave unchanged without sign off) hampers how we may need to develop and iterate in an agile fashion on what is a FOAK product.
4. The need to run marketing of the service by ESO first (Section 4.5 of the Service Terms): given the time between consultation responses and go live is measured in weeks this will be very difficult
5. Will the prices of accepted offers feed into the imbalance price calculations in any way?
6. It appears that the pre qual process requires ESO "sign off" of the dispatch process participants will use. This will require early design and so an initial understanding of what is "acceptable" would be very useful.
7. The threshold in section 5.2.2 which determines the point at which a DFS participant is considered "materially and/or persistently failing to deliver the Demand Flexibility Service from one or more DFS Units in accordance with its submitted Demand Reduction Volumes" would be useful to understand in advance
8. We assume that the MPANs that comprise a DFS unit can be changed for gains, losses etc.

**1)** Thank you for your comments on pay-as-bid vs pay-as-clear. ESO ran the Herfindahl–Hirschman Index (HHI) analysis based on data derived from suppliers and aggregators volume survey feedback. HHI is the index to measure the market concentration. Generally, a market with an HHI of less than 1,500 is considered a competitive marketplace in which a single participant's joining or leaving won't cause a drastic change in the market price. According to the result of HHI analysis, in most cases, the HHI is bigger than 1500 especially during the morning and evening peaks when this Demand Flexibility Service is most likely to be needed. This demonstrates the Demand Flexibility market is expected to be a moderately concentrated market and the competitive market criteria of applying uniform market price (i.e. Pay-as-clear) has not been met. Therefore, the Pay-as-bid is recommended to be used as the payment mechanism as it will be a more efficient mechanism for DFS market.

Moreover, different end consumers may require different incentives to provide this service. It is unlikely that the price required for I&C customers and domestic customers will be the same. Pay- as-bid allows providers to tailor their incentives based on their customer base and overall strategy. There is also a risk that the cost differential between bids would be significant. Pay-as-clear may result in an extremely large cost increase. As this service is a time limited non- commercial service, the benefit of higher clearing costs in signalling market investment would not be realised over the length of the product's operation.

**2)** The ESO needs some level of control over the volume of DFS delivered, to manage system frequency and the overall ramp rate. This is why DFS units are limited to 100MW in size, to allow the necessary granularity of decision making. If you deliver volume on a DFS unit that was rejected, you will not be paid for it. For tests, if all of the units are the same price, and are at or below the GAP, they will all be accepted, so this is not an issue. For real

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|  | <p>9. In the Service Rules, can we check that 12.3/4 only applies where the Service Provider enter other agreements (i.e. as described in 12.1)</p> | <p>events, you could always introduce a small price offset (e.g. £-2,-1,0,+1,+2/MWh) across the five units from your target price to add differentiation, and rotate the prices offsets between different groups of consumers over different events to spread the additional value in a fair manner.</p> <p><b>3)</b> We require the DFS Initiation Measures process as this provides the certainty that we will receive delivery of the accepted bid. On the day of the event providers are required to submit an updated forecast which should be based on the acceptances from their customers that will actively be participating. If the ESO does not have this then there is a risk there could be a huge disparity between forecasted and actual volumes.<br/>We understand there is a difference between 'active' turn-down and where assets are optimised through automated deployment of a signal. These providers will need to provide the ESO with the acceptances of their customers who have allowed the company to optimise their assets at any time through the period of the service. We would expect these providers to keep details of when this signal was sent to provide evidence they had done so in response to our requirements.<br/>Providers will be expected to state the 'delivery method' of their initiation measures when they register for this service. The way in which providers do this will not be stipulated by the ESO.</p> <p><b>4)</b> The ESO has edited clause 4.5 of the Procurement Rules to better clarify our intention. We will be creating shared Communication Principles that we would like providers to use when marketing the product and discussing with consumers. The intention of this clause is to ensure the service is talked about consistently with external audiences and named appropriately. We will look to discuss this further at the industry Working Group ahead of the launch.</p> <p><b>5)</b> DFS will be included in the Balancing Service Adjustment Data (BSAD). For real events, the DFS volume will be energy-flagged so that the price of these actions will feed into the cash out price. This is important, as the times where the service is used are likely</p> |
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|  |  | <p>to be periods with high prices and where there may not be enough generation to meet demand, meaning the volume of service we use is likely to change the market from being long to short, and may itself set the cash out price. For tests, the DFS volume will be system-flagged, as there is a risk that the GAP will be above the marginal BM price and therefore set the cash out price at an artificially high level, polluting the signal.</p> <p><b>6)</b> As part of registration we are asking providers to define their 'Delivery Method' as part of their Initiation Measures so we can understand how you will be communicating with your customers. There is no set way that this should be achieved.</p> <p><b>7)</b> Thank you for your comment. We are not intending to set a prescribed performance level, but as a guide we would be looking for a provider routinely delivering multiples or fractions of their contracted position as a trigger. Initially, we would expect to talk to the provider to understand the challenges they are facing and steps they are taking to resolve, and only then if poor performance continued would we look to enact the clause. We expect performance to improve over time with more uses of DFS through the tests, as providers and end consumers become more familiar, so we hope not to need to use this clause but require it for our protection and to protect other providers and the end consumer.</p> <p><b>8)</b> The MPANs associated to a DFS Unit can be changed for each contracted Settlement Period. However, once an acceptance has been given the MPANs cannot be moved between differently priced DFS Contracted Settlement Periods/DFS Units.</p> <p><b>9)</b> 12.1 ensures that the provider can make available and deliver DFS free of any restriction or impairment resulting from a contract with a third party related to the underlying asset(s) - for example a connection agreement, or an offtake agreement, or a lease for the land, but also including any contract under which the provider delivers MW or load reduction to e.g. a DNO or under a capacity agreement.</p> |
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|                          |   | <p>12.2 says that if a provider is unable to deliver DFS for a reason stated in 12.1 then it must provide a full explanation to ESO, and 12.3 goes on to say that the provider will reimburse ESO any extra costs and expenses ESO may have incurred as a result of securing any alternative or replacement service provision. 12.4 says this reimbursement can't exceed £250k in aggregate in respect of any single instance of delivery.</p> <p>For completeness, we also have 12.5, which deals with stacking of DFS with other ESO balancing services (i.e. not allowed).</p> |
| <p>Brookgreen Supply</p> | <p><b><i>Do you agree with the proposal for the Demand Flexibility Service?<br/>Please provide rationale</i></b></p> <p><b><u>General</u></b><br/>Yes, we agree with the proposal of the Demand Flexibility Service. We see unlocking the demand flexibility that large customers can provide as a crucial component of balancing the future energy system.</p>   | <p><b><u>General</u></b><br/>Thank you for your feedback in regards to the development of this service.</p>   |
|                          | <p><b><i>Do you agree with our proposal to introduce both onboarding and regular monthly tests to provide confidence the service will be commercially viable? Please provide rationale</i></b><br/><b><i>Do you agree with our proposals as part of testing to introduce a Guaranteed Acceptance Price? Please provide rationale</i></b></p> <p><b><u>Guaranteed Acceptance Price</u></b><br/>We agree with the need for performance testing; however, eight times seems excessive given we do not agree with the current GAP methodology. The three current options do not reflect the customers cost to provide this service, merely a reflection of the power price at the time. This means lost revenue by the customer is not accounted for. With no guarantees of actual (non-testing) runs or capacity payments for offering this service, the cost of these tests cannot be priced into the providers offering.</p> | <p><b><u>Guaranteed Acceptance Price</u></b><br/>Thank you for your comments on the testing and Guaranteed Acceptance Price for the tests. We have received a range of feedback on the proposed price level from potential providers, which indicates that a GAP level of £2,000/MWh or higher is required to unlock maximum volumes and to meet our aim of making the service viable for this winter.</p> <p>In light of these developments, we intend to increase the GAP from our initial proposal and will share further details once we have this finalised.</p>             |

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|     | <p><b><i>Annex 1: Do you have any comments on the highlighted mapping for the Demand Flexibility service?</i></b></p> <p><b><u>Auction timing</u></b><br/>It would be helpful to move the bidding and results forward to ideally midday/early afternoon if possible.</p>  | <p><b><u>Auction timing</u></b><br/>The tender time is currently set to give us the best possible view of our requirements at day ahead stage dependant on data from other timelines. We therefore cannot move the tender assessment to earlier in the day.</p>  |
|     | <p><b><i>Do you have any other comments on the Demand Flexibility service proposal?</i></b></p> <p><b><u>Requirements</u></b><br/>It would be helpful if NG could provide a view of how often they expect to use this service, similarly to other Ancillary Services.</p>   | <p><b><u>Requirements</u></b><br/>We understand the need for providers to have more details with regards to the number of times the service might be called upon, and, following the recent publication of the Winter Outlook Report, we will be sharing a DFS requirements paper with this information.</p> |
| DCC | <p><b><i>Do you agree with the proposal for the Demand Flexibility Service?</i></b><br/><b><i>Please provide rationale</i></b></p> <p><b><u>General</u></b><br/>Yes, we agree with the proposal as the terms and conditions are well within our parameters as the Demand Flexibility Service will use the current Smart DCC processes for half-hour metering.</p>   | <p><b><u>General</u></b><br/>Thank you for your feedback in regards to the development of this service.</p>  |
|     | <p><b><i>Do you agree with our proposal to introduce both onboarding and regular monthly tests to provide confidence the service will be commercially viable? Please provide rationale</i></b><br/><b><i>Do you agree with our proposals as part of testing to introduce a Guaranteed Acceptance Price? Please provide rationale</i></b></p> <p><b><u>Testing</u></b><br/>Yes, we agree with the onboarding process and the monthly tests as it not only adds confidence in the service but also helps us to test our systems and prep for an increase in half-hourly messaging. Could you please let us know when the onboarding and testing will take place so we can monitor it.</p> | <p><b><u>Testing</u></b><br/>Thank you for your feedback supporting our proposal to provide onboarding and monthly tests.</p>  |

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|      | <p>Having a Guaranteed Acceptance Price doesn't affect us.</p> <p><b><i>Do you have any other comments on the Demand Flexibility service proposal?</i></b></p> <p><b><u>General</u></b><br/> The Demand Flexibility Service will increase the size of the messages sent by smart meters. To better prepare, we would need to discuss with the suppliers (service providers) how they will operate, please let us know if you have calls with suppliers as we would like to take part.</p>   | <p><b><u>General</u></b><br/> Most of our engagement has now taken place with industry in regards to this service. We would encourage you to reach out directly to suppliers who you think may participate if you believe this may directly impact you.</p> |
| UKPN | <p><b><i>Do you agree with the proposal for the Demand Flexibility Service?</i></b><br/> <b><i>Please provide rationale</i></b></p> <p><b><u>General</u></b><br/> UK Power Networks support the programmes' objective to unlock new demand flexibility which should benefit the system in the short and long-term. The national media coverage on DFS is a good opportunity for the ESO to leverage to reach new customers.</p> <p>UK Power Networks have experience of working closely with flexibility providers over many years to encourage participation in DSO flexibility markets and have enabled and witnessed the growth in domestic-level flexibility.</p> <p>We expect that most DFS resources will be connected to the distribution network. Distribution networks are expanding their local flexibility markets and flexible connections. We would therefore encourage the ESO to continue to engage with DNOs ahead of, and during, the roll out of DFS to ensure a successful coordinated programme. We provide more details on the potential impacts and coordination options in Q4.</p> | <p><b><u>General</u></b><br/> Thank you for your feedback in regards to the delivery.</p>   |

***Do you have any other comments on the Demand Flexibility service proposal?***

**Data**

We welcome clause 17.3.1 in the procurement rules for the ESO to share with DNOs the constituent metering points of assets. This will allow DNOs to identify and raise any potential network issues that may affect delivery of DFS. However, we recommend that metering point information is shared with DNOs before the bid is accepted so potential issues can inform ESO decision making before a cost commitment is made.

DNOs will use asset and utilisation information to improve load modelling and forecasting. The following data would be used to support DNO load modelling and forecasting:

- MPANs participating
- Technology type per MPAN
- Instructions received per MPAN
- Performance of response per MPAN
- Cost of response per technology

These data sets would ensure DNO load models are up to date but also deliver learnings for the development of DSO flexibility services.

**Eligibility**

Clause 4.2.3 in the procurement rules and clause 12 of the service terms restrict participation of DFS assets in other third-party services. Can ESO confirm whether this includes DSO services? This will help DNOs understand the potential impacts on local flexibility markets. More specifically, DSO services are non-exclusive. As DFS activation is scheduled at day-ahead we think we might see assets opting out of DSO services in favour of DFS if their DFS bid is accepted.

**General**

In addition, constraints can occur during high wind and outage periods in areas of our network with a high proliferation of flexible

**Data**

Thank you for your feedback. Due to the time constraints associated with the DFS Assessment we will be unable to share this information ahead of us accepting or rejecting a bid we will endeavour to provide the relevant information as soon as possible via the data portal.

The ESO will share what information it can with industry as per the Procurement Documentation. We understand the results data from this service will prove invaluable learning to the development of future flexibility products.

**Eligibility**

Yes, the exclusion includes DSO services. The only exception to the exclusion is for ANMs. Given the short timescale for developing the service and its position as an enhanced action for winter, we are willing to accept the risk of DFS delivery being partially nullified by ANMs.

**General**

We acknowledge that there is the risk of interaction with ANM schemes, however we believe use of this service is unlikely to

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|             | <p>connections, such as Norwich and Walpole. DFS actions within these areas and during these times could result in a counter action on flexible connections leading to nullification of DFS. This interaction is similar to that being investigated through the Regional Development Programme and at the ENA's Open Networks WS1A P5 (Primacy rules). However due to DFS timescales we would be happy to discuss possible mitigation options separately.</p>  | <p>correspond with high wind periods due to the additional margin wind generation provides to the system.</p>  |
| <p>SPEN</p> | <p><b><u>General</u></b><br/> This response is from SP Energy Networks (SPEN). SPEN owns and operates the electricity distribution networks in the Central Belt and South of Scotland (SP Distribution plc) which serves two million customers, and North Wales, Merseyside, Cheshire and North Shropshire (SP Manweb plc) which serves one and a half million customers. SPEN also owns the electricity Transmission network in Central and Southern Scotland (SP Transmission).</p> <p>We therefore have a key interest in the Demand Flexibility Services (DFS) and welcome the opportunity to respond to this consultation. We believe that DFS will be important in the toolkit for the ESO over the coming months against a backdrop of forecasted tight margins over this winter.</p> <p>There are two key issues we would like to highlight and ensure that the ESO considers as it plans the use of DFS over the coming months. These should also be considered over the longer term as the ESO considers the deployment of such tools in future years, when distribution networks will be servicing far greater volumes of electric vehicles, low carbon heating systems and distributed energy resource (DER), meaning that system wide actions will have a much greater probability of creating local distribution network or customer issues. This may also mean that DNO management of local network constraints reduces the expected impact of ESO actions.</p> <p>These issues are as follows:</p> | <p><b><u>General</u></b><br/> Thank you for your feedback in regards to the development of this service. We have answered your individual queries below.</p> |



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| <p><b>1. Results of DFS may be neutralised by DNO actions, similar to the effect of demand reduction behind a generation constrained Transmission boundary</b><br/> Co-ordination with the DNO on the locational considerations of any contracted DFS is essential to ensure that the DFS delivers the desired national result alongside the safe operation of the distribution system. For example, in areas with Active Network Management (ANM) which optimises Distributed Generation (DG) output in real time to match local demand and network capacity, any demand reduction could be nullified at times where generation is also reduced. This is a consideration for both widescale demand shift from small customers and DSR from large customers.</p> <p>This would have the same effect, but on a smaller scale, as the ESO requesting a DFS demand reduction from customers in Scotland at a time when generators in Scotland are being constrained due to B6 boundary constraints on exports South, or at any similarly constrained area of the GB transmission network.</p> <p><b>2. Differences in peak demand between the GB System and DNO network</b><br/> There are areas of our distribution network that have different demand profiles from that of the national demand profile, which the ESO is likely not aware of. For example, St Andrews in Scotland has a morning peak which is later and an evening peak which is earlier than the national profile. Therefore, shifting this local demand profile to seek to address system wide peaks could, in some situations, cause network problems for the DNO by increasing peak network demand.</p> <p><b><u>General</u></b><br/> The probability of these issues presenting this winter is relatively low but will quickly become more pronounced with the forecast electrification of heat and transport; the continued uptake of DER; and the requirement for ANM schemes to allow the accelerated</p> | <p><b><u>1.</u></b><br/> Given the short timescale for developing the service and its position as an enhanced action for winter, we are willing to accept the risk of DFS delivery being partially nullified by ANMs.</p> <p><b><u>2.</u></b><br/> We are expecting an effect of the order of 5% of demand nationally. Given the normal variances in demand we would expect DNOs with network constraints already within this margin to need some form of management anyway in order to prevent overloading of equipment.<br/> We will be seeking an updated forecast broken down by GSP on the day of delivery from those providing the service which will be shared with DNOs and wider industry.</p> <p><b><u>General</u></b><br/> Thank you for your feedback. The learnings from this service will feed into other projects which are considering how to enable demand flexibility in an enduring capacity. We look forward to working with industry to solve any challenges we learn this winter.</p> |
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|  | <p>connection of DG in generation dominated areas of Distribution networks.</p> <p>These issues demonstrate the need for the ESO and DNOs to develop effective interfaces to understand and effectively manage interest conflicts between the GB-wide system and DNO networks, and the need for DNOs to develop their DSO capabilities as set out in their ED2 plans. We welcome working closely with the ESO on these issues in the future.</p>   |   |
|  | <p><b><i>Do you agree with the proposal for the Demand Flexibility Service?<br/>Please provide rationale</i></b></p> <p><b><u>General</u></b><br/>We support the introduction of a Demand Flexibility Service for the winter and believe this is a step in the right direction. Depending on exactly how this service is used by the ESO, it could play an important role in supporting safe and secure operation of the system in tight periods over the winter. We are generally supportive of the proposed Procurement Rules and Service Terms, but do have some specific comments which we raise in our responses to the following questions.</p>  | <p><b><u>General</u></b><br/>Thank you for your feedback and support in regards to the development of this service.</p>   |
|  | <p><b><i>Do you agree with our proposal to introduce both onboarding and regular monthly tests to provide confidence the service will be commercially viable? Please provide rationale</i></b></p> <p><b><i>Do you agree with our proposals as part of testing to introduce a Guaranteed Acceptance Price? Please provide rationale</i></b></p> <p><b><u>Testing</u></b><br/>Yes, we support the proposal to have 12 tests with a guaranteed acceptance price. We welcome the recently increased guaranteed acceptance price of £2,000/MWh, and believe this sets the right balance between incentivising participation and sufficiently remunerating service providers. There is still some</p> | <p><b><u>Testing</u></b><br/>Thank you for your feedback, we are looking to build confidence in this service through testing and encourage early participation. For the tests, we plan to accept as much volume as possible, including all bids up to the marginal price of balancing energy we would expect to have accepted in the Balancing Mechanism (BM)</p> |

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| <p>uncertainty with respect to the tests, we would welcome clarity from the ESO on how much volume they intend to procure as part of the tests.</p>  | <p>during the delivery period. For example, using prices from winter 2021/22, if we expected to run a BM unit at £4,000/MWh during the test period then we would accept all Demand Flexibility Service bids up to £4,000/MWh.</p>   |
| <p><b><i>Do you have any other comments on the Demand Flexibility service proposal?</i></b></p> <p><b><u>Pay-as-bid</u></b><br/> <b>Pay-as-clear</b><br/> The ESO’s original proposal was for the DFS to be settled on a pay-as-clear basis. Whilst we don’t believe the proposed pay-as-bid methodology will be significantly detrimental, on balance, we do believe a pay-as-clear market would be more efficient.<br/> Benefits of a pay-as-clear mechanism include:</p> <ul style="list-style-type: none"> <li>• More efficient despatch</li> <li>• Less opportunity for gaming</li> <li>• Strong incentive on participants to consistently bid in at their marginal cost</li> <li>• A clear reference for the price of the marginal unit</li> </ul> <p><b><u>Order of actions</u></b><br/> “Last resort service”<br/> We note that the ESO has been clear this is a last resort service. We would welcome clarity from the ESO on how the activation of the DFS would be considered against activation of the coal contracts or very high-priced interconnector trades. There could be merit on calling on the DFS before those options have been exhausted.</p> <p>We would like the ESO to clearly set out under what conditions they would seek to procure through the DFS. Future DFS Service<br/> Once the service concludes in March 2023, we would welcome a review of how it performed over the period. Should the service be deemed to have been successful, we would support the development of a Demand Flexibility Service to be operated on an enduring basis.</p> | <p><b><u>Pay-as-bid</u></b><br/> Thank you for your comments on pay-as-bid vs pay-as-clear. ESO ran the Herfindahl–Hirschman Index (HHI) analysis based on data derived from suppliers and aggregators volume survey feedback. HHI is the index to measure the market concentration. Generally, a market with an HHI of less than 1,500 is considered a competitive marketplace in which a single participant’s joining or leaving won’t cause a drastic change in the market price. According to the result of HHI analysis, in most cases, the HHI is bigger than 1500 especially during the morning and evening peaks when this Demand Flexibility Service is most likely to be needed. This demonstrates the Demand Flexibility market is expected to be a moderately concentrated market and the competitive market criteria of applying uniform market price (i.e. Pay-as-clear) has not been met. Therefore, the Pay-as-bid is recommended to be used as the payment mechanism as it will be a more efficient mechanism for DFS market.</p> <p>Moreover, different end consumers may require different incentives to provide this service. It is unlikely that the price required for I&amp;C customers and domestic customers will be the same. Pay- as-bid allows providers to tailor their incentives based on their customer base and overall strategy.<br/> There is also a risk that the cost differential between bids would be significant. Pay-as-clear may result in an extremely large cost increase. As this service is a time limited non- commercial service, the benefit of higher clearing costs in signalling market investment would not be realised over the length of the product’s operation.</p> <p><b><u>Order of actions</u></b></p> |

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|          | <p>Based on the experience from this upcoming winter, industry and the ESO should work collaboratively to design the procurement 3 rules and service terms which could be applied to a DFS on an enduring basis.</p>  | <p>The Order of actions that the ESO will take was shared during the ESO Autumn Markets Forum on 28th September 2022. The link to slides can be below and are on slide 8:<br/> <a href="https://www.nationalgrideso.com/document/268021/download">https://www.nationalgrideso.com/document/268021/download</a></p>   |
| myenergi | <p><b><i>Do you agree with the proposal for the Demand Flexibility Service?<br/>Please provide rationale</i></b></p> <p><b><u>General</u></b><br/> myenergi is a manufacturer of energy smart technology targeted at the domestic sector, and aligned with our investment in Orange Power (a grid asset aggregator), we are predominantly interested in the opportunity for demand side response services from residential customers.</p> <p>Overall, myenergi agrees with the proposal for the Demand Flexibility Service. We believe that there is huge untapped potential in the domestic flexibility market. Currently, we have around 50,000 connected EV charge points installed in UK homes, with estimated potential total capacity of over 350MW. We know, for example, from trials carried out with Octopus Energy, that EV charging can be a highly effective source of flexibility.</p> <p><b><u>Metering/baseline</u></b><br/> Although the proposal of the Demand Flexibility System is generally reasonable, myenergi would question NGENSO's decision to only use boundary meter data when calculating demand reduction. Currently, access to data and connectivity between systems is not established enough to create a level playing field between retail energy providers and flexibility service providers, including aggregators and virtual power plants. There can be challenges for third parties accessing smart meter data via the DCC Other User links such as costs, and quality of the data received.</p> | <p><b><u>General</u></b><br/> Thank you for your feedback and support in regards to the development of this service.</p> <p><b><u>Metering/baseline</u></b><br/> Thank you for your comments and suggestions on how to enable asset vs boundary metering.</p> <p>The Demand Flexibility Service has been rapidly developed to enable demand reduction this winter. The ESO needs to have confidence of the reduction that is being delivered. We have engaged on this topic with industry over the last few months but have not been provided with an appropriate solution we feel mitigates the risks we foresee allowing asset metering or large enough volumes that we feel are necessary to facilitate a change to this service parameter. We are therefore keeping metering at the boundary level for this service.</p> |

To enable as many providers as possible to participate, we believe that asset meters should be allowed. Asset meters can be used for other flexibility services, and they provide the same data as a smart meter, but a lot richer. For example, the myenergi zappi EV charger can provide meter import, export, and generation data and can measure the energy delivered to the electric vehicle every second, whereas a smart meter can only show energy usage between 15-30 minute intervals.

**Enduring service**

myenergi understands that NGENSO require a viable way of ensuring confidence that the baseline methodology is reflecting true demand reduction, however, we believe that the use of the BSC P376 Baseline Methodology to calculate demand reduction provides an advantage for energy suppliers.

To encourage mass participation in this service, we believe that NGENSO should be aiming for the most common methodology for baselining, and the choice to use P376 should be optional. We believe the Nominated Baseline as detailed in the ENA Flexibility Baselining Tool User Guide would be a suitable option to calculate demand reduction if the baseline can be justified.

myenergi are concerned that only allowing the use of boundary meter data and the P376 methodology to calculate demand reduction will lead to energy suppliers having a monopoly in the Demand Flexibility Service market. Consumers are so disengaged with energy suppliers, that this may not be the best route to encourage engagement with this service, especially as the NGENSO aim to access as much additional flexibility as possible. Customers that are likely to engage with this service are consumers involved in new smart technologies provided by aggregators, that arguably, the current DFS proposal disadvantages.

myenergi understands that the NGENSO is using the DFS proposal as an enhanced mechanism over the winter period, to access additional flexibility to balance generation and demand that is not

Our baseline proposals are the following: We propose to use the methodology set out in BSC P376 'Utilising a Baselining Methodology to set Physical Notifications' with an in-day adjustment for domestic consumers. Baselining is required to calculate the actual demand reduction at a meter level. This methodology has been previously approved by Ofgem in another context.

**Enduring service**

Thank you for your comments, this service is specifically for this 22/23 Winter period and is not an enduring service. It is an enhanced action and not a commercial service.

We are aiming to review how the service was used and delivered post the service term, this will support the ESO in understanding how the service was received by industry & consumers. The learnings from this service will feed into other projects which are considering how to enable demand flexibility in an enduring capacity.

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| <p>currently accessible through existing services and market incentives. However, we would also like to understand the NGENSO's long term plans regarding this service, especially as it has already been acknowledged that residential flexibility is a huge market, and that there are many advantages to providers participating in demand side flexibility services, such as reducing overall costs of managing the system, reducing carbon emissions, and reducing the cost of their own bills as well as many more.</p> <p>We believe continuing the DFS would give opportunity to explore demand flexibility in response to 'turn up' events. As the spring/summer approaches, there may be solar generation excess that can provide market learning opportunity as the UK establishes a smart and secure energy system.</p>  |  |
| <p><b><i>Do you agree with our proposal to introduce both onboarding and regular monthly tests to provide confidence the service will be commercially viable? Please provide rationale</i></b></p> <p><b><i>Do you agree with our proposals as part of testing to introduce a Guaranteed Acceptance Price? Please provide rationale</i></b></p> <p><b><u>Guaranteed Acceptance Price</u></b></p> <p>myenergi agree with the proposal to introduce onboarding and monthly tests. We agree that two onboarding tests in the first full month of provision, plus two regular tests each month will provide confidence that the service can be commercially viable.</p> <p>However, the commerciality of the proposal relies on the value of the incentive offered for service providers registering for DFS and taking part in the testing of the service. The incentive needs to be at a level that allows them to pass some value to the end-consumer, whilst it remaining commercially viable for the provider.</p> <p>The introduction of the Guaranteed Acceptance Price can provide reassurance of continuous pricing. However, myenergi feel that basing the GAP on the Ofgem Price Cap would be too low of an</p> | <p><b><u>Guaranteed Acceptance Price</u></b></p> <p>Thank you for your comments on the Guaranteed Acceptance Price for the tests. We have received a range of feedback on the proposed price level from potential providers, which indicates that a GAP level of £2,000/MWh or higher is required to unlock maximum volumes and to meet our aim of making the service viable for this winter.</p> <p>In light of these developments, we intend to increase the GAP from our initial proposal and will share further details once we have this finalised.</p> |

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|  | <p>incentive to interest providers in registering. We understand that NGENSO are revaluating the GAP following the announcement of the Energy Price Guarantee. If the Guaranteed Acceptance Price is too low, we feel that services would not be delivered.</p> <p>myenergi agree with general feedback that the Guaranteed Acceptance Price should be £2,000/MWh. The testing price should not be capped by the market as this is a service to test and understand customer behaviour. We are concerned that if the customer is paid less than £1 for an event, they would not be interested.</p> <p>myenergi would also like to suggest that when the NGENSO are considering the finalised Guaranteed Acceptance Price, they need to factor in for the potential inconvenience the end-consumer may experience if they took part in DFS. For example, if a consumer's electric vehicle did not charge fully by the time they needed it, due to taking part in an event, the incentive from the service provider would need to be high enough for that inconvenience to not matter.</p> |  |
|  | <p><b><i>Do you have any other comments on the Demand Flexibility service proposal?</i></b></p> <p><b><u>Order of actions</u></b><br/>myenergi feel that the Demand Flexibility Service would be an excellent opportunity to study and learn more about consumer behaviour relating to demand flexibility. We believe that NGENSO should try and maximise the number of events instead of using this service as a last option. Randomised events will not inspire behaviour change and there are currently other balancing services that occur daily, so there is a way this can be managed. The customer would not have to opt into every event, therefore addressing the issue of user fatigue.</p> <p><b><u>Pay-as-bid</u></b><br/>myenergi would also like to comment on the use of pay-as-bid rather than pay-as-clear. We are concerned that the consumers</p>   | <p><b><u>Order of actions</u></b><br/>Thank you for this feedback. We understand the potential effects of user fatigue going forwards and the learnings from this service will feed into other projects which are considering how to enable demand flexibility in an enduring capacity.</p> <p><b><u>Pay-as-bid</u></b><br/>Thank you for your comments on pay-as-bid vs pay-as-clear.</p> |

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|     | <p>will be at a disadvantage using the pay-as-bid method as they may receive different monetary benefits, despite taking part in the same events, but through different providers.</p>                       | <p>ESO ran the Herfindahl–Hirschman Index (HHI) analysis based on data derived from suppliers and aggregators volume survey feedback. HHI is the index to measure the market concentration. Generally, a market with an HHI of less than 1,500 is considered a competitive marketplace in which a single participant’s joining or leaving won’t cause a drastic change in the market price.</p> <p>According to the result of HHI analysis, in most cases, the HHI is bigger than 1500 especially during the morning and evening peaks when this Demand Flexibility Service is most likely to be needed. This demonstrates the Demand Flexibility market is expected to be a moderately concentrated market and the competitive market criteria of applying uniform market price (i.e. Pay-as-clear) has not been met. Therefore, the Pay-as-bid is recommended to be used as the payment mechanism as it will be a more efficient mechanism for DFS market.</p> <p>Moreover, different end consumers may require different incentives to provide this service. It is unlikely that the price required for I&amp;C customers and domestic customers will be the same. Pay- as-bid allows providers to tailor their incentives based on their customer base and overall strategy.</p> <p>There is also a risk that the cost differential between bids would be significant. Pay-as-clear may result in an extremely large cost increase. As this service is a time limited non- commercial service, the benefit of higher clearing costs in signalling market investment would not be realised over the length of the product’s operation.</p> |
| SMS | <p><b><i>Do you agree with the proposal for the Demand Flexibility Service?<br/>Please provide rationale</i></b></p> <p><b><u>General</u></b><br/><b>We agree with the proposal for the DFS service.</b></p> | <p><b><u>General</u></b><br/>Thank you for your feedback and support in regards to the development of this service.</p>   |



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| <p>It is SMS's view that domestic customers can be encouraged to reduce their demand at requested periods of the day over the winter months of Nov-Mar.</p> <p>Gathering 'new' customers to build a DFS unit – customers who are not registered in any other current service such as within a BMU/CMU/Frequency Response unit/Reserve unit/etc. – is a challenge</p>   |   |
| <p><b><i>Do you agree with our proposal to introduce both onboarding and regular monthly tests to provide confidence the service will be commercially viable? Please provide rationale</i></b></p> <p><b><i>Do you agree with our proposals as part of testing to introduce a Guaranteed Acceptance Price? Please provide rationale</i></b></p> <p><b><u>Testing</u></b><br/> <b>We agree with NGESO's plan to have two onboarding tests and 10 tests regularly spaced across the five months of the DFS delivery window.</b></p> <p><b>We agree with the proposal to include a Guaranteed Acceptance Price (GAP) for the 12 tests.</b></p> <p>These 12 tests will help to encourage participation from domestic customers by guaranteeing a revenue floor for participation via the GAP.</p> <p>NGESO have described the dispatching of an actual DFS event as being an ADDITIONAL ACTION to be taken after all options in the BM and the suite of Balancing Services have been activated and exhausted. If this 'service of last resort' model is to be the case, then guaranteeing revenues to customers (and providers) at a GAP is necessary to bring customers to the market and to retain them. It very well may be the case that 'additional actions' are not needed over the DFS period, with the BM and balancing services adequately meeting NGESO's needs. In this case, a</p> | <p><b><u>Testing</u></b><br/> Thank you for your feedback supporting our proposal to provide onboarding and monthly tests with a Guaranteed Acceptance Price.</p> |

DFS unit will not expect much revenue outside of the guaranteed revenues from the tests.

**Guaranteed Acceptance Price**

**We support a fixed GAP**, rather than a floating GAP based on, for example, the pricing results of the BM at the time of each test. A fixed GAP will make customer acquisition more straightforward and makes customer retention easier to plan.

**We support a GAP in the range of £2,000-£3,000/MWh, equating to £2-£3/kWh.** Domestic customer bills will be historically high this upcoming winter. Customers will need a strong incentive to make participation worth their while. Participation levels may drop off faster than providers expect or hope if the GAP is set too low. The GAP must also be high enough that Providers can recuperate their costs from the same revenues whilst still passing the majority of the revenue to Customers. NGESO has stated that DFS will be a service providing ADDITIONAL ACTIONS, after all actions in the BM, the wholesale market, and from the various Balancing Services have been dispatched. Providers and customers should therefore expect that DFS actions should be priced – even for the GAP – close to or above the general level of winter peak BM prices or wholesale prices.

**We request that NGESO clarify the Pay-as-Bid process** for the 12 test actions and also separately for actual DFS dispatch actions where the GAP does not apply. It should be clear where a GAP applies, where no GAP applies, where a price cap applies and where no cap applies. All parties should be adequately aware of the risks of submitting bids for test actions at prices above the GAP. This is also a reason for our support of a fixed GAP, as if the GAP was not known in advance then the value of having a GAP and 12 tests diminishes with each potential unsuccessful attempt to predict the GAP.

**Guaranteed Acceptance Price**

Thank you for your comments on the Guaranteed Acceptance Price for the tests. We have received a range of feedback on the proposed price level from potential providers, which indicates that a GAP level of £2,000/MWh or higher is required to unlock maximum volumes and to meet our aim of making the service viable for this winter.

In light of these developments, we intend to increase the GAP from our initial proposal and will share further details once we have this finalised.

The Guaranteed Acceptance Price will only apply to tests. For tests, the ESO will be publishing the GAP with the test requirement.

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| <p><b><u>Stacking</u></b><br/> <b>We support NGESO reconsidering the requirement that all DFS MPANs are ‘new’ MPANs not registered to other services.</b> We note that customers being dispatched in the DFS market cannot also be registered in any other market – such as the BM, CM, or any balancing service. This lack of ability to stack DFS delivery alongside other revenues will make both the acquisition and the retention of customers more difficult than had stacking of other revenues been allowed.</p>   | <p><b><u>Stacking</u></b><br/> The ESO will not be enabling stacking as part of this service, the service is looking for additional capacity that the ESO cannot currently access. If providers have access to other services, this is not considered additional and as this is a last resort service we would rather these other commercial services are participated in.</p>  |
| <p><b><i>Do you have any other comments on the Demand Flexibility service proposal?</i></b></p> <p><b><u>MPAN register</u></b><br/> <b>MPAN Register</b><br/> NGESO states that each Provider will be required to maintain their own register of customer MPANs. We request that NGESO provides a pro-forma for such a register to ensure that all required data is able to be collected as early as possible from each customer – preferably at the point of sign-up. NGESO should be aware that collecting of data from existing customers post-sign-up can be very difficult.</p> <p><b><u>Double counting</u></b><br/> <b>MPAN Double Counting</b><br/> NGESO is clear that the same customer should not be registered in more than one DFS unit. We request that NGESO make clear the procedures to be put in place to govern any cases where the same MPAN is discovered to be in more than one DFS Unit at the same time. We suggest that each Provider should notify NGESO of any new customer acquisitions, and in particular any customers who are transitioning from one DFS provider to another. In the event of the MPAN being discovered in more than one DFS Unit at the same time then the communications with NGESO can help to decide which DFS Unit the MPAN should be in.</p> <p><b><u>Initiation measures</u></b></p> | <p><b><u>MPAN register</u></b><br/> We will be providing a DFS Provider Manual which will outline how providers participate in the service and the different interactions that will be required. This includes templates for the different data submissions.</p> <p><b><u>Double counting</u></b><br/> We have been engaging with industry and understand that double counting of MPANs is a large risk for some participants. We have outlined a more detailed process for how we will check MPANs and deal with any duplicated registration.</p> <ol style="list-style-type: none"> <li>1. Providers must submit all MPANs during the onboarding process. A check is completed.</li> <li>2. Providers can add and/or remove MPANs on a weekly basis, a template will be shared. This will need to be submitted alongside the Weekly Indicative Forecast. A check and review of all MPANs to ensure there are no duplications will be completed.</li> <li>3. If a match is found both parties will be notified, and the MPAN is removed from the service.</li> <li>4. Providers will be required to provide evidence of agreement with their customer, which the ESO will review.</li> <li>5. MPANs can only be used once ESO has confirmed acceptance of evidence.</li> </ol> |

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| <p><b>Customer Automatic Opt-In</b><br/> We request that NGENSO confirms in detail the mechanisms that are acceptable to NGENSO with regards to requiring individual Customers within each Provider Unit to confirm participation in each DFS Event. NGENSO have said to us that they are happy with each individual Participant to manage how they treat the individual customer service acknowledgements, and that a default understanding of automatic enrolment in every event is a suitable position to contract for. Are NGENSO willing to leave this process to each Provider to establish the most efficient method? We point out that what NGENSO will see will be a baseline demand and a demand level during an event, and the difference between these two values is what will be paid for in the DFS service. How each Participant manages the data making up the baseline and live event data should be a matter left up to them.</p> <p><b><u>Baselining</u></b><br/> <b>Baseline calculations</b><br/> We request that NGENSO provides a worked example of how the baseline is calculated for each DFS Unit, including the procedure for correcting the baseline for weather/etc. We request that NGENSO also sets out the procedure for who calculates the baseline – NGENSO or the Provider – and when it is calculated. A template or baseline calculation tool would also be of value, to ensure that all participants calculate the baseline for each period correctly and in the same fashion.</p> <p><b><u>MPAN Data</u></b><br/> <b>MPAN data</b><br/> We ask that NGENSO clarifies the process for how, when, how frequently, and in what format they want Half Hourly data from each DFS Unit. A pro-forma document for collecting and submitting the data would be welcome as well.</p> | <p>We need to demonstrate we are taking action to mitigate the risk of gaming and double counting, whilst providing sufficient clarity to providers to ensure we maximise volume.</p> <p><b><u>Initiation measures</u></b><br/> We require the DFS Initiation Measures process as this provides the certainty that we will receive delivery of the accepted bid. On the day of the event providers are required to submit an updated forecast which should be based on the acceptances from their customers that will actively be participating. If the ESO does not have this then there is a risk there could be a huge disparity between forecasted and actual volumes.<br/> We understand there is a difference between ‘active’ turn-down and where assets are optimised through automated deployment of a signal. These providers will need to provide the ESO with the acceptances of their customers who have allowed the company to optimise their assets at anytime through the period of the service. We would expect these providers to keep details of when this signal was sent to provide evidence they had done so in response to our requirements.<br/> Providers will be expected to state the ‘delivery method’ of their initiation measures when they register for this service. The way in which providers do this will not be stipulated by the ESO</p> <p>Our baseline proposals are the following: we propose to use the methodology set out in BSC P376 'Utilising a Baselining Methodology to set Physical Notifications' with an in-day adjustment for domestic consumers. Baselining is required to calculate the actual demand reduction at a meter level.</p> <p><b><u>Baselining</u></b><br/> Schedule 3 of the Procurement Rules outlines the process for calculating the baseline for different DFS Unit Types. Clause 6 of the Service Terms outlines the Performance Data that NGENSO will require as part of the service and requests for the provider to calculate the operational baseline of their DFS Units.</p> <p><b><u>MPAN Data</u></b></p> |
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|     |   | Thank you for your feedback. Please see the above response, we will be providing a DSF Provider Manual which contains templates for all of the data required.    |
| OVO | <p><b><i>Do you agree with the proposal for the Demand Flexibility Service?<br/>Please provide rationale</i></b></p> <p><b><u>General</u></b><br/>Yes. We fully support National Grid’s efforts to remove barriers to engagement with flexibility across all demand types and in particular for domestic consumers. We recognise the unique set of circumstances for this winter, and the need to move at pace. However, we are also facing unprecedented challenges in domestic supply – hugely significant government interventions (such as the Energy Bills Support Scheme and the Energy Price Guarantee) are taking significant resource to deliver. While we are strongly supportive of such a Service being developed, participation will necessarily be impacted by the very difficult circumstances we are navigating as domestic suppliers. These circumstances are unique, and much of the impact time-bounded - we hope that we will be able to participate in the scheme, but we caution ESO not to judge participation of the early stages of this service as indicative of broader appetite for such as scheme.</p> | <p><b><u>General</u></b><br/>Thank you for your feedback in regards to the development of this service.</p>  |
|     | <p><b><i>Do you agree with our proposal to introduce both onboarding and regular monthly tests to provide confidence the service will be commercially viable? Please provide rationale</i></b><br/><b><i>Do you agree with our proposals as part of testing to introduce a Guaranteed Acceptance Price? Please provide rationale</i></b></p> <p><b><u>Testing</u></b><br/>Yes. We recognise the need to provide commercial viability given the novel nature of this product, but agree that this needs to be</p>  | <p><b><u>Testing</u></b><br/>Thank you for your feedback supporting our proposal to provide onboarding and monthly tests with a Guaranteed Acceptance Price.</p> |

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|  | <p>balanced against the impact to consumer costs at a time of a cost of living crisis.</p> <p>We should aim to minimise any unnecessary costs to consumers. We think that the framework of tests with a GAP is a pragmatic approach to achieving that balance.</p>  |  |
|  | <p><b><i>Do you have any other comments on the Demand Flexibility service proposal?</i></b></p> <p><b><u>Double counting</u></b></p> <p>We are particularly concerned with the double counting issue, as we have discussed with ESO. The issue as we see it is:</p> <ol style="list-style-type: none"> <li>(1) The same demand is counted twice – once with the asset &amp; once with the MPAN</li> <li>(2) The same demand is counted twice – by two different Service “suppliers”.</li> </ol> <p>It appears that issue (1) is resolved by the exclusion of asset metering, but issue (2) remains. We note the impacts:</p> <ol style="list-style-type: none"> <li>(1) ESO gets an incorrect view of available demand at the time of instigating auctions</li> <li>(2) Customers potentially get paid twice, or paid half of what they were expecting</li> <li>(3) Suppliers / providers risk bidding in volume that is not accessible.</li> </ol> <p>We are aware ESO are considering an obligation on providers to check MPANs with each other. We do not think something like this is practicable to deliver for domestic MPANs. In essence, we do not think it’s possible to ensure any duplication is resolved <i>ahead</i> of an auction. We think it’s highly likely that consumers will sign up to more than one provider, given the option. Therefore, we think there is material risk of uncontrollable error in our bidding volumes, making it difficult to know expected revenue and what price to bid at.</p> | <p><b><u>Double counting</u></b></p> <p>We have been engaging with industry and understand that double counting of MPANs is a large risk for some participants. We have outlined a more detailed process for how we will check MPANs and deal with any duplicated registration.</p> <ol style="list-style-type: none"> <li>1. Providers must submit all MPANs during the onboarding process. A check is completed.</li> <li>2. Providers can add and/or remove MPANs on a weekly basis, a template will be shared. This will need to be submitted alongside the Weekly Indicative Forecast. A check and review of all MPANs to ensure there are no duplications will be completed.</li> <li>3. If a match is found both parties will be notified, and the MPAN is removed from the service.</li> <li>4. Providers will be required to provide evidence of agreement with their customer, which the ESO will review.</li> <li>5. MPANs can only be used once ESO has confirmed acceptance of evidence.</li> </ol> <p>We need to demonstrate we are taking action to mitigate the risk of gaming and double counting, whilst providing sufficient clarity to providers to ensure we maximise volume.</p> |

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|          | <p>We think a practical simplification to ensure delivery for this winter would be to restrict participation in the scheme for domestic customers to their suppliers only. This would not prevent suppliers from partnering with third parties to administer / deliver the service, but would make use of existing industry processes to ensure there is no duplication of MPANs.</p> <p>ESO should then work with existing workstreams across BEIS and Ofgem (e.g. SESS) to refine and develop a framework for non-suppliers to participate in domestic-level flexibility in the future.</p> <p>Whether ESO chooses to mitigate against the risk of double counting or not, we urge ESO to be clearer about how such an event would be dealt with. ESO reserves the right to audit MPAN registers, and customer confirmation data. We want to better understand what ESO will do with this information. In particular, we want to avoid the situation where an MPAN is found to have been paid twice, and one or more providers have to look to recover funds from customers who have already been paid.</p> |  |
| Centrica | <p><b><i>Do you agree with the proposal for the Demand Flexibility Service?</i></b><br/> <b><i>Please provide rationale</i></b></p> <p><b><u>General</u></b><br/> Centrica supports the development of this service which provides NGESO with a low carbon 'enhanced action' tool for this winter.</p> <p>There is significant future potential for domestic consumers to contribute to grid security by participating in demand side response (DSR) and be rewarded for their actions. Improvements are needed to NGESO's existing markets to make them accessible for residential and other small-scale DSR.</p> <p>We welcome NGESO exploring use of this service for winter 2022/23 to harness GB demand response that currently cannot access balancing service markets.</p>   | <p><b><u>General</u></b><br/> Thank you for your feedback and support in regards to the development of this service.</p> |

However, despite NGENSO's high level of engagement with industry during the design of the scheme, there are several aspects that are impractical for providers and could act as a barrier to consumer participation.

We describe improvements needed to the scheme below.

**Initiation measures**

**Consumer acceptance confirmation**

Consumer participation requirements must be as simple as possible.

The Procurement Rules (4.2.4) currently require the consumer to confirm acceptance of each instruction as part of the Provider's DFS Initiation Measures.

We believe this is too onerous, especially for consumers. Asking consumers to confirm participation every time there is an instruction could be counter-productive: it could become a trigger for them to opt out – either proactively because they become fatigued by the number of messages or because they miss the response time.

We propose a simpler approach of a one-time opt in by the consumer to cover the whole winter period, which we would confirm once to NGENSO. We would still message consumers to inform them each time there is an event and they should alter their consumption, but they would not be required reply to the message and we would not have to pass confirmation of that to NGENSO.

**Baselining**

**Baselining**

We are in the middle of conducting a dummy run of baselining and want to see how the output is affected by any gaps in smart meter data. The analysis will be ready shortly after this consultation closes.

**Initiation measures**

We require the DFS Initiation Measures process as this provides the certainty that we will receive delivery of the accepted bid. On the day of the event providers are required to submit an updated forecast which should be based on the acceptances from their customers that will actively be participating. If the ESO does not have this then there is a risk there could be a huge disparity between forecasted and actual volumes.

We understand there is a difference between 'active' turn-down and where assets are optimised through automated deployment of a signal. These providers will need to provide the ESO with the acceptances of their customers who have allowed the company to optimise their assets at anytime through the period of the service. We would expect these providers to keep details of when this signal was sent to provide evidence they had done so in response to our requirements.

Providers will be expected to state the 'delivery method' of their initiation measures when they register for this service. The way in which providers do this will not be stipulated by the ESO.

**Baselining**

Thank you for informing us you are running a dummy run of your processes. If you have any questions, please let us know.

As this baseline methodology has been previously agreed with Ofgem in another context and we have developed this service rapidly we will not be considering changing the baseline



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| <p>Whilst we have been supportive of the ESO's decision to draw on the P376 approach, we need to reserve judgement until our baselining dry run has finished. We can provide feedback on this in a few days.</p>   | <p>methodology we will be using (BSC P376 'Utilising a Baselining Methodology to set Physical Notifications' with an in-day adjustment for domestic consumers).</p>   |
| <p><b><i>Do you agree with our proposal to introduce both onboarding and regular monthly tests to provide confidence the service will be commercially viable? Please provide rationale</i></b></p> <p><b><i>Do you agree with our proposals as part of testing to introduce a Guaranteed Acceptance Price? Please provide rationale</i></b></p> <p><b><u>Testing</u></b></p> <p><b><u>Onboarding and monthly tests</u></b><br/> We understand the rationale for conducting monthly tests for this service. We would not normally expect this number of tests for a grid balancing service. The DFS monthly tests should not set a precedent for new services.</p> <p><b><u>Guaranteed Acceptance Price</u></b></p> <p><b><u>Guaranteed Acceptance Price</u></b><br/> The reward consumers receive must be meaningful and consumers won't differentiate between tests and real-world events, as they must take the same actions for both.</p> <p>We believe that the Guaranteed Acceptance Price should be in the range of £3.5-£4kWh to provide a minimum financial incentive capable of engaging consumers in the current environment.</p> <p>We would support a commitment to hold tests during the afternoon peak, where the price could be more closely linked to the Balancing Mechanism and have more potential to exceed the GAP.</p> <p><b><u>Pay-as-bid</u></b></p> <p><b><u>Pay-as-clear</u></b></p> | <p><b><u>Testing</u></b><br/> Thank you for your feedback; the number of tests is designed to create and maintain confidence in forecasts and delivery, and to ensure the commercial viability of the service. DFS is a new type of service for both the ESO and providers, hence our different approach in this instance.</p> <p><b><u>Guaranteed Acceptance Price</u></b><br/> Thank you for your comments on the Guaranteed Acceptance Price for the tests. We have received a range of feedback on the proposed price level from potential providers, which indicates that a GAP level of £2,000/MWh or higher is required to unlock maximum volumes and to meet our aim of making the service viable for this winter.</p> <p>In light of these developments, we intend to increase the GAP from our initial proposal and will share further details once we have this finalised.</p> <p><b><u>Pay-as-bid</u></b><br/> Thank you for your comments on pay-as-bid vs pay-as-clear.</p> |

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| <p>For much of the pre-consultation service development discussions with industry, NGESO presented the service as pay-as-clear. We were surprised to see the change to pay-as-bid in the consultation. Alongside most other industry stakeholders, we have a preference for pay-as-clear as a more efficient price-discovery mechanism. Use of pay-as-clear would be in line with NGESO's approach used with its other new services.</p> | <p>ESO ran the Herfindahl–Hirschman Index (HHI) analysis based on data derived from suppliers and aggregators volume survey feedback. HHI is the index to measure the market concentration. Generally, a market with an HHI of less than 1,500 is considered a competitive marketplace in which a single participant's joining or leaving won't cause a drastic change in the market price.</p> <p>According to the result of HHI analysis, in most cases, the HHI is bigger than 1500 especially during the morning and evening peaks when this Demand Flexibility Service is most likely to be needed. This demonstrates the Demand Flexibility market is expected to be a moderately concentrated market and the competitive market criteria of applying uniform market price (i.e. Pay-as-clear) has not been met. Therefore, the Pay-as-bid is recommended to be used as the payment mechanism as it will be a more efficient mechanism for DFS market.</p> <p>Moreover, different end consumers may require different incentives to provide this service. It is unlikely that the price required for I&amp;C customers and domestic customers will be the same. Pay- as-bid allows providers to tailor their incentives based on their customer base and overall strategy.</p> <p>There is also a risk that the cost differential between bids would be significant. Pay-as-clear may result in an extremely large cost increase. As this service is a time limited non- commercial service, the benefit of higher clearing costs in signalling market investment would not be realised over the length of the product's operation.</p> |
| <p><b><i>Do you have any other comments on the Demand Flexibility service proposal?</i></b></p> <p><b><u>Onboarding</u></b><br/> <u>Onboarding</u><br/> We will need additional users to have access to the Single Markets Platform to onboard and operate this service. Is NGESO</p>  | <p><b><u>Onboarding</u></b><br/> Registration for DFS on SMP went live on 7th October, with this communication with industry we shared guides on how to register for DFS.</p>   |

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|                | <p>ready to add additional SMP users? We want to avoid any unnecessary administrative delays.</p> <p><b>Comms</b><br/> <u>NG ESO prior approval of marketing/branding</u><br/> The requirement 4.5 in the Procurement Rules could cause delays to companies developing the service for their customers and should be removed.</p>  | <p>Provider wishing to grant access to additional users to the SMP Portal now can do it via the Secondary User Management Functionality. For further details go to <a href="https://www.nationalgrideso.com/industry-information/balancing-services/single-markets-platform">https://www.nationalgrideso.com/industry-information/balancing-services/single-markets-platform</a></p> <p><b>Comms</b><br/> The ESO has edited clause 4.5 of the Procurement Rules to better clarify our intention. We will be creating shared Communication Principles that we would like providers to use when marketing the product and discussing with consumers. The intention of this clause is to ensure the service is talked about consistently with external audiences and named appropriately. We will look to discuss this further at the industry Working Group ahead of the launch.</p> |
| <p>Octopus</p> | <p><b>General</b><br/> Octopus Energy welcomes the opportunity to give input on the Demand Flexibility Service proposal. This is a unique service worldwide. It has the potential to accelerate the role of domestic customers and SME businesses in providing flexibility by years and unlock demand flexibility’s potential to play a key role in grid balancing for the first time on a national scale. National Grid ESO is to be commended on its vision and the pace with which it has put the service together. We intend to participate and are building the tools to contribute.</p> <p>There remain a couple of points of concern that may limit broad participation in this service by the industry: i) the Guaranteed Acceptance Price is too low; ii) we need more clarity on expectations for event numbers; iii) more clarity on the future of the DFS would be welcome - we are making a major investment in this winter, and it would be helpful for ESO to commit to looking at options to extend.</p> | <p><b>General</b><br/> Thank you for your feedback and support in regards to the development of this service.</p>   |
|                | <p><b><i>Do you agree with the proposal for the Demand Flexibility Service?<br/> Please provide rationale</i></b></p>  |   |

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| <p><b><u>General</u></b><br/> Yes, we agree with the proposal for the Demand Flexibility Service and are committed to launch in November. Customers are facing an unprecedented price environment this winter but are able to provide significant levels of flexibility. The service will unlock participation of households and SME businesses in grid balancing and provide welcome compensation for the service, helping to reduce customer bills.</p>   | <p><b><u>General</u></b><br/> Thank you for your feedback and support in regards to the development of this service.</p>  |
| <p><b><i>Do you agree with our proposal to introduce both onboarding and regular monthly tests to provide confidence the service will be commercially viable? Please provide rationale</i></b><br/> <b><i>Do you agree with our proposals as part of testing to introduce a Guaranteed Acceptance Price? Please provide rationale</i></b></p> <p><b><u>Testing</u></b><br/> Yes, we agree with the proposal to introduce both onboarding and regular monthly tests to provide confidence the service will be commercially viable. To encourage greater volumes, a 2-hour test window rather than 1-hour would be preferable and better reflect ESO's needs.</p> <p><b><u>Guaranteed Acceptance Price</u></b><br/> Yes, a Guaranteed Acceptance Price (GAP) for the onboarding and regular monthly tests is necessary to guarantee customer sign-ups; however, we believe that this price should be increased from the current 53p/kWh Ofgem price cap to at least £3/kWh. At this higher incentive, we expect much greater engagement from our customers and therefore volumes – anything lower will likely not lead to great response. A low price will reduce the priority of the service for suppliers. It will also impact customer willingness to participate and depress volumes - if the initial price is low, customers may decide it is not worth participating, and following this it will be very hard to re-engage, even if the prices during actual events are higher than the GAP. Press surrounding this</p> | <p><b><u>Testing</u></b><br/> Thank you for your agreement on the inclusion of tests. The reason we have set the test requirement at one hour is because it is the balance we have found between the reasonable duration we think end consumers (especially domestic ones) can do and our system requirement, as well as cost we need to spend.</p> <p><b><u>Guaranteed Acceptance Price</u></b><br/> Thank you for your comments on the Guaranteed Acceptance Price for the tests and agreement with the number of tests. We have received a range of feedback on the proposed price level from potential providers, which indicates that a GAP level of £2,000/MWh or higher is required to unlock maximum volumes and to meet our aim of making the service viable for this winter.</p> <p>In light of these developments, we intend to increase the GAP from our initial proposal and will share further details once we have this finalised.</p> |

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| <p>service indicated that the service prices may be as high as £6/kWh incentive, which has set the level of expectation for suppliers. When BOAs to coal plant will be repriced through BSAD to £99,999/MWh, the comparison of this low pricing for customers flexibility is extremely unfavourable.</p>  |   |
| <p><b><i>Do you have any other comments on the Demand Flexibility service proposal?</i></b></p> <p><b><u>Requirements</u></b><br/> Providers need more clarity on ESO’s expectations of likely number of events. We need this to set expectations with customers and design our own internal processes. It will also help us to estimate potential value of the service to customers. ESO to date has not provided any guidance on this beyond the 12 test events. It is understood that any estimates will be non-binding, but it would be helpful to see estimated numbers backed by some analysis e.g. i) how many dispatches would have been made if the service was in place last year, and ii) how many are expected to be made based on ESO’s winter outlook. Without this, we’re missing key information for how to develop and prioritise the service.</p> <p><b><u>Baselining</u></b><br/> A clear methodology is needed for compensating for unavailable metered data. Occasionally smart meter data is unavailable to the utility because of issues with smart meter hardware or the DCC communications interface. If some half hourly data points are missing because of DCC error we propose that missing data should be interpolated linearly from points either side. If data for the entire event window is missing, the average volume reduction seen across all other unit meter points should be applied to that with missing data to reduce the exposure for suppliers. (ref Clause 8.3 of the Service Terms).</p> <p><b><u>Requirements</u></b><br/> Providers should be able to vary offered volumes across Settlement Periods (SP) if ESO calls an event lasting multiple</p> | <p><b><u>Requirements</u></b><br/> We understand the need for providers to have more details with regards to the number of times the service might be called upon, and, following the recent publication of the Winter Outlook Report, we will be sharing a DFS requirements paper with this information.</p> <p><b><u>Baselining</u></b><br/> Service Terms Clause 8.3 outlines that if any metered data is unavailable it can be interpolated from the adjoining settlement periods if these contain data but where this data is not available the MPAN will need to be excluded from the settlement data.</p> <p><b><u>Requirements</u></b><br/> Providers are free to submit different volumes in different periods. If you are unable to sustain delivery across all requirement periods</p> |

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| <p>periods. ESO have indicated that volume should be submitted evenly across event windows, but this would not be reflective of reality where a customer's demand and potential flexibility can vary by half hour. Providers should be free to indicate actual expected demand reduction and for this to vary in each Settlement Period.</p> <p><b><u>Enduring service</u></b><br/>ESO has described the service as one-off, last resort. Providers are asked to make major investments in upgrading their systems and processes, as well as asking millions of customers to participate. To justify this investment, it would be helpful to know that there is a route to full deployment of the service in BAU and that it could form not just a last-resort service but a chance to be used much more widely in balancing. Demand shifting has historically often been asked to behave as an inverse of generation in services - meeting the same operating characteristics as power stations on response times, metering, etc. But the real benefit is that demand interventions can reduce the cost of balancing by balancing around a lower demand position, even if the amount of balancing is slightly increased, compared to a smaller amount of balancing around the peak demand position. The service will take first steps towards a true mobilisation of demand flexibility but it is vital that this is not just a one-off. National Grid ESO should confirm at a minimum an intention to use DFS next winter, as well as more broadly in the future.</p> <p><b><u>Comms</u></b><br/>Finally, ESO should specify marketing and/or branding guidelines to be followed by the provider, rather than requiring prior approval in writing. The provider might have 10-20 pieces of collateral that would need to be reviewed, and it won't be possible to review this in the necessary time frame.</p> | <p>(e.g. you could do full volume for 1SP, or part volume for 3SP), we would encourage you to profile your bids proportionally to the requirement.</p> <p>For example, if we have a requirement for 100MW in SP34, 200MW in SP35 and 100MW in SP36, we would like you to profile your delivery on a 25%, 50%, 25% or proportional 1MW : 2MW : 1MW split</p> <p><b><u>Enduring service</u></b><br/>Thank you for your comments, this service is specifically for this 22/23 Winter period and is not an enduring service.</p> <p>We are aiming to review how the service was used and delivered post the service term, this will support the ESO in understanding how the service was received by industry &amp; consumers. The learnings from this service will feed into other projects which are considering how to enable demand flexibility in an enduring capacity.</p> <p><b><u>Comms</u></b><br/>The ESO has edited clause 4.5 of the Procurement Rules to better clarify our intention. We will be creating shared Communication Principles that we would like providers to use when marketing the product and discussing with consumers. The intention of this clause is to ensure the service is talked about consistently with external audiences and named appropriately. We will look to discuss this further at the industry Working Group ahead of the launch.</p> |
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| EDF | <p><b><i>Do you agree with the proposal for the Demand Flexibility Service?</i></b><br/> <b><i>Please provide rationale</i></b></p> <p><b><u>Enduring service</u></b><br/> Yes. Overall the principals of Demand Flexibility Service are a great way to start enabling new flexibility to participate in grid balancing, especially during tight periods of system stress as might be the case this winter with tight gas supplies due to the Russian invasion of Ukraine. If there is insufficient gas to supply gas-fired generation this winter then power supplies could be affected with consumers disconnected and this service offers consumers a route to market via their supplier to ensure they can offer their services and be rewarded for helping the system balance prior to any physical disconnection.</p> <p>We appreciate the timelines are challenging but this trial should also provide an important ‘pathfinder’ for domestic flexibility trying to access the Balancing Mechanism, which is currently blocked until post 2025 by the lack of market wide Half-Hourly Settlement.</p> <p>As well as helping to ensure grid reliability this winter, the learnings from this service/trial can be used to help inform the future of balancing services and how domestic and distributed flexibility can ultimately be unlocked at scale to increase liquidity in the BM, both for turn-down as well as turn-up services needed in summer.</p> | <p><b><u>Enduring service</u></b><br/> Thank you for your comments.<br/> We are aiming to review how the service was used and delivered post the service term, this will support the ESO in understanding how the service was received by industry &amp; consumers. The learnings from this service will feed into other projects which are considering how to enable demand flexibility in an enduring capacity.</p> |
|     | <p><b><i>Do you agree with our proposal to introduce both onboarding and regular monthly tests to provide confidence the service will be commercially viable? Please provide rationale</i></b><br/> <b><i>Do you agree with our proposals as part of testing to introduce a Guaranteed Acceptance Price? Please provide rationale</i></b></p>   |   |

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| <p><b><u>Testing</u></b><br/> We agree with the rationale behind the proposed tests where the price paid for these tests is more important than the number of tests to validate the level of success of this scheme. We believe there will be more success with a higher price/fewer tests scenario, so that any risk of fatigue from delivering this service is minimised. It is important that the ESO is realistic in the amount of demand-response they will actually get on the day to meet expectations, especially from domestic consumers where this service has been largely unproven to date.</p> <p>In terms of testing we believe monthly testing will increase the learnings gained from running the service this winter and will also encourage greater participation by guaranteeing commercial viability to new providers who will be investing time and resources in getting setup to deliver the service. This will provide a great opportunity for customers to save on their energy bills this winter, while helping to balance the grid.</p> <p><b><u>Guaranteed Acceptance Price</u></b><br/> The Guaranteed Acceptance Price is critical to create an attractive/value proposition for our customers. However, we must be sure this is not a trivial amount to ensure a strong uptake and the correct optics for what should be an overwhelmingly positive trial.</p> | <p><b><u>Testing</u></b><br/> Thank you for your feedback; the number of tests is designed to create and maintain confidence in forecasts and delivery, and to ensure the commercial viability of the service.</p> <p><b><u>Guaranteed Acceptance Price</u></b><br/> Thank you for your comments on the Guaranteed Acceptance Price for the tests. We have received a range of feedback on the proposed price level from potential providers, which indicates that a GAP level of £2,000/MWh or higher is required to unlock maximum volumes and to meet our aim of making the service viable for this winter.</p> <p>In light of these developments, we intend to increase the GAP from our initial proposal and will share further details once we have this finalised.</p> |
| <p><b><i>Do you have any other comments on the Demand Flexibility service proposal?</i></b></p> <p><b><u>Guaranteed Acceptance Price</u></b><br/> <b>Introduction</b><br/> We welcome the ESO’s support in getting this service up and running as soon as possible for this winter. However as stated above it is important the ESO designs a scheme that maximises the response primarily through a high enough payment that motivates participants to turn down. We think that there is risk that a low clearing price during tests will lead to fatigue with consumers and businesses and lead to lower involvement in the</p>  | <p><b><u>Guaranteed Acceptance Price</u></b><br/> Thank you for your comments, please see response on the GAP above.</p>  |



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|             | <p>service.</p> <p>EDF are looking to participate in the service in partnership with a domestic aggregator who are able to control electric vehicle load. Together we are looking to provide &gt;20MW of response using domestic smart EV charging.</p> <p><b><u>Metering</u></b><br/> <b>Issues with Boundary Metering</b><br/> Boundary metering presents an issue as we are not able to access half-hourly smart meter data for the majority of our customers.</p> <p><b>Asset Metering Solution</b><br/> To enable us to participate in the service we would need to use asset metering, which our aggregator provider is able to provide either half-hourly or minute-by-minute. It is our understanding that asset metering has successfully been used as an alternative to boundary metering in other markets including DSO flexibility services and that it is also acceptable in the Balancing Mechanism.</p> <p>We are happy to discuss with NGENSO how a suitable asset metering solution can be achieved within the scope and timescale of the proposed Demand Flexibility Service starting in November.</p> | <p><b><u>Metering</u></b><br/> Thank you for your comments and suggestions on how to enable asset vs boundary metering.</p> <p>The Demand Flexibility Service has been rapidly developed to enable demand reduction this winter. The ESO needs to have confidence of the reduction that is being delivered. We have engaged on this topic with industry over the last few months but have not been provided with an appropriate solution we feel mitigates the risks we foresee allowing asset metering or large enough volumes that we feel are necessary to facilitate a change to this service parameter. We are therefore keeping metering at the boundary level for this service.</p> |
| Good Energy | <p><b><i>Do you agree with the proposal for the Demand Flexibility Service?</i></b><br/> <b><i>Please provide rationale</i></b></p> <p><b><u>General</u></b><br/> The proposal for Demand Flexibility Service from National Grid, is in principle a great step to enable new flexibility resources to participate in grid balancing. This trial should provide a valuable real-world test and learnings for domestic flexibility accessing the Balancing Mechanism, which is currently blocked until Half-Hourly Settlement is widely available, that is not expected until post</p>   | <p><b><u>General</u></b><br/> Thank you for your feedback and support in regards to the development of this service, we agree the learnings should feed into future services.</p>  |

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| <p>2025. Alongside ensuring grid reliability this winter, the learnings from this service/trial can be used to help inform the future of balancing services, markets and how domestic distributed flexibility can ultimately be unlocked at scale in the coming years.</p>   |   |
| <p><b><i>Do you agree with our proposal to introduce both onboarding and regular monthly tests to provide confidence the service will be commercially viable? Please provide rationale</i></b></p> <p><b><i>Do you agree with our proposals as part of testing to introduce a Guaranteed Acceptance Price? Please provide rationale</i></b></p> <p><b><u>Testing</u></b><br/>Onboarding testing and regular monthly testing will increase the learnings gained from running the service this winter and will also encourage greater participation by guaranteeing commercial viability to new providers.</p> <p><b><u>Guaranteed Acceptance Price</u></b><br/>Any supplier engaging in the trial will be investing time and resources in getting this setup, and offering customers a captivating proposition. The Guaranteed Acceptance Price combined with the regular tests are critical to create an attractive/valued proposition for our customers. However, we must be sure this is a suitable monetary value to ensure the right level of attractiveness and that the wider industry is seen to be a positive force for customers this winter.</p> | <p><b><u>Testing</u></b><br/>Thank you for your feedback supporting our proposal to provide onboarding and monthly tests.</p> <p><b><u>Guaranteed Acceptance Price</u></b><br/>Thank you for your comments on the Guaranteed Acceptance Price for the tests. We have received a range of feedback on the proposed price level from potential providers, which indicates that a GAP level of £2,000/MWh or higher is required to unlock maximum volumes and to meet our aim of making the service viable for this winter.</p> <p>In light of these developments, we intend to increase the GAP from our initial proposal and will share further details once we have this finalised.</p> |
| <p><b><i>Do you have any other comments on the Demand Flexibility service proposal?</i></b></p> <p><b><u>Metering</u></b><br/>Background – Good Energy are looking to participate in the service in partnership with a domestic aggregator who are able to control electric vehicle load, providing the demand flexibility</p>   | <p><b><u>Metering</u></b><br/>Thank you for your comments and suggestions on how to enable asset vs boundary metering.</p>  |

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|       | <p>service. Together with Good Energy customers and the aggregators broader portfolio we are looking to provide &gt;20MW of response using domestic smart EV charging. Boundary Metering Issue / Asset Metering Solution: The proposed Boundary metering restriction presents an potential issue as we cannot access half-hourly data for all target customers. To enable us to most fully participate in the service, we would ask for Asset Metering to be accepted. Asset metering would be provided by our aggregator with half-hourly or minute-by-minute granularity. It is our understanding that asset metering has successfully been used as an alternative to boundary metering in other markets including DSO flexibility services and that it is also acceptable in the Balancing Mechanism. We are happy to discuss with NGENSO how this can be achieved and will open up the service to a greater range of participants. We are confident this can be achieved within the scope and timescale of the proposed Demand Flexibility Service starting in November.</p> | <p>The Demand Flexibility Service has been rapidly developed to enable demand reduction this winter. The ESO needs to have confidence of the reduction that is being delivered. We have engaged on this topic with industry over the last few months but have not been provided with an appropriate solution we feel mitigates the risks we foresee allowing asset metering or large enough volumes that we feel are necessary to facilitate a change to this service parameter. We are therefore keeping metering at the boundary level for this service.</p> <p>There is a large difference between services such as STOR/DC and DFS in regard to this. STOR and DC are both dispatched in real-time, and the time of dispatch is essentially unforecastable. This means it is very difficult to react to the dispatch and switch loads around. However with DFS, there is 24 hours notice. This gives an opportunity for example for an electric car user who needed the charger to be zero, they could just plug it in a wall socket and DFS would lose 50% of the volume straight away. The potential financial incentives of this service are far higher than has been used in alternative markets, giving a much stronger incentive for this sort of behaviour than has been seen elsewhere.</p> |
| Piclo | <p><b><i>Do you agree with the proposal for the Demand Flexibility Service?<br/>Please provide rationale</i></b></p> <p><b><u>General</u></b><br/>Yes, we agree with the proposal for the Demand Flexibility Service. Unlocking demand flexibility at all levels is essential to a cost-effective, decarbonised and resilient UK.</p> <p><b><u>Enduring service</u></b><br/>Whilst National Grid ESO has proposed this as a short-term measure to help consumers, businesses and the energy system reduce costs this upcoming winter (2022) if designed, implemented and coordinated in a strategic manner, DFS has the potential to drive engagement, demand side flexibility and the UK's wider net zero goals in the medium-long term.</p>  | <p><b><u>General</u></b><br/>Thank you for your feedback and support in regards to the development of this service.</p> <p><b><u>Enduring service</u></b><br/>Thank you for your comments, this service is specifically for this 22/23 Winter period and is not an enduring service.</p> <p>We are aiming to review how the service was used and delivered post the service term, this will support the ESO in understanding how the service was received by industry &amp; consumers. The</p>  |

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|  |  | <p>learnings from this service will feed into other projects which are considering how to enable demand flexibility in an enduring capacity.</p>   |
|  | <p><b><i>Do you agree with our proposal to introduce both onboarding and regular monthly tests to provide confidence the service will be commercially viable? Please provide rationale</i></b></p> <p><b><i>Do you agree with our proposals as part of testing to introduce a Guaranteed Acceptance Price? Please provide rationale</i></b></p> <p><b><u>Testing</u></b><br/> Yes, providing market confidence and revenue certainty is essential to participation in new markets, particularly in light of the short-term nature of the service that National Grid ESO has outlined.</p>  | <p><b><u>Testing</u></b><br/> Thank you for your feedback and support for the inclusion of tests within the design of this service.</p>  |
|  | <p><b><i>Do you have any other comments on the Demand Flexibility service proposal?</i></b></p> <p><b><u>Systems</u></b><br/> To achieve a decarbonised, resilient and cost-effective energy system by 2035, both mitigating the energy crisis immediately through short-term demand side response (DSR) and unlocking long-term demand reduction and destruction are essential.</p> <p>The Winter Demand Flexibility Service (WDFS) has the potential to unlock a significant volume of new service providers and flexibility, capturing a substantial amount of short-term demand response until March 2023. To achieve this and successfully turn the gained momentum into an enduring, long-term demand reduction initiative, participation and processes for both NGE SO and providers (particularly new types of providers) must be streamlined and simple. Consequently, the processes and tools underlying the WDFS must be user-friendly, scalable and adaptable.</p> | <p><b><u>Systems</u></b><br/> Thank you for your feedback. We will be sharing the data templates that will be used as part of the service and are currently in the process of testing our systems ready for service go-live.</p> |

The use of marketplaces, such as Piclo Flex, can seamlessly unlock GWs of demand response. The benefits of this route include enabling participation through a user-friendly platform that facilitates service advertisement, registration, qualification, bidding, dispatch and settlement. Additionally, marketplace-as-a-service offerings such as Piclo's can also support communication, customer service and market education - which has proved valuable to widening participation within DSO flexibility markets. Marketplaces are therefore capable of providing alternative routes to market for different types of service providers. Additionally, they can minimise the risk of human error, administrative burdens and manual processes for both NGE SO and Registered Service Providers (RSPs), which may otherwise stifle participation - especially where the market has been positioned as short-term, with limited revenue certainty.

For instance, Registered WDFS Participants are expected to use reasonable endeavours to submit Weekly Indicative Forecasts via email in a potentially changing format specified by NGE SO. This forecast should contain detailed information such as indicative utilisation prices and anticipated maximum aggregate demand reduction volumes for each settlement period. As RSPs will not be disqualified for failing to submit the forecast, NGE SO's process for collecting this optional data submission may be hindered by this time-consuming process. Additionally, accuracy may be impacted by the use of a human-error prone process. Streamlining the processes through 2 marketplaces would simplify data submission, extraction and analysis.

Increasingly, we are seeing the importance of coordination across SOs and using a tool integrated with such markets, which is capable of providing visibility and communication to SOs will support market liquidity, growth and optimal outcomes at all levels.

**Consequently, the tool(s) that NGE SO uses to facilitate registration and participation should be kept open, so that**

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|  | <p>routes to market aside from the Single Markets Platform and manual email route outlined can be accessed if needed. We would welcome further engagement on this proposal and have invited key industry stakeholders to a workshop, Thursday 6th October.</p> |  |
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**Annex 3 – Further detailed responses to Ofgem questions (For the purposes of Ofgem only)**

| Ofgem Question   | ESO Response  |
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| <p><b>Is the 30-minute minimum delivery period tied to settlement period and what happens if customers don't strictly adhere to this timing?</b></p> | <p>We proposed at our co-creation workshop on 28th July 2022 two options for the service window length, 1-hour or 30-mins. Provider feedback was that a 30-minute service window fits better with existing data, and that some end consumers cannot sustain a demand reduction for a full 1-hour window. As such, we proceeded with 30-minute periods.</p> <p>Payment will be based on what is delivered during each half hour period – no penalties are applied due to the type of participants taking part in the DFS. This is based on the total energy reduction (MWh) in the period, not a sustained reduction in power (MW). So, for example, a reduction of 10MW for 30 mins or a 30MW reduction for 10 mins would deliver the same 15MWh reduction, and we would pay for 15MWh. This is the same as the wholesale market works for bulk energy and settlement.</p> <p>The requirement for participants to turn down for at least 30 minutes provides the minimum duration for participation in the scheme while aligning it with the duration of a settlement period. A shorter window would also be impractical from a tendering and administrative perspective.</p> |
| <p><b>Could a longer period be used? From a supplier's perspective, this might lead to more people taking action.</b></p>                            | <p>We will be publishing our DFS requirements ahead of provider submitting bids, and during actual events we could see DFS being used for several hours at a time. Providers can submit bids for any or all of the half-hour periods, including consecutive half-hour periods, and they will be able to understand where this allows them to bring in other consumers who prefer or need a longer demand reduction periods.</p> <p>Some providers are likely to prefer 30 minutes if they have certain processes that can't be turned down/switched off for longer. This also gives granularity if needed and providers are free to use MPANs in different units to achieve the turn down volumes they're bidding in for over a longer period.</p> <p>For reference: all tests will be for two consecutive half-hour service windows.</p>   |
| <p><b>Can bids of over one hour be linked? For example 50MW for 2 half hours vs 100MWs for 1 hour.</b></p>   | <p>When providers register 'units' these are virtual and are required to have a capacity of between 1 MW and 100 MW. The providers can then assign MPANs to each unit when notify them of a requirement and they make a bid.</p> <p>Linking bids is not allowed as part of DFS, but providers can submit bids for consecutive periods. There are no "mutually exclusive" or "all or nothing" bids. The requirement and bids for each service window are assessed independently from the rest of the windows.</p>  |

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|  | <p>Each DFS Bid relates to a single settlement period. Providers are able to submit multiple bids for the same unit for different Settlement Periods or multiple bids for different DFS units for the same Settlement Period. A provider must be able to deliver all bids they submit or any combination of them as stipulated in the service terms. Due to the rapid development of this service and the need for maximum volume we have tried to reduce complexity as much as possible.</p>  |
| <p><b>On benefits, at the moment the test service is an economic tool. Is that informing decision on price and does the ESO have an estimate on the benefits of cost and carbon reduction?</b></p> | <p>DFS is one of our enhanced actions for this winter, not an economic tool. The main aims of the DFS tests are: to maximise the volume of demand flexibility we can access, making the service viable for providers and end consumers, and to create and maintaining confidence in the forecast volumes.</p> <p>Tests are expected to be conducted during high-demand periods of the day in winter, to provide an accurate picture of performance at the times we are likely to need it. Inevitably, this will displace some other BM actions we would otherwise have taken and so resulting in some costs savings, which, while beneficial, are not the main aim.</p> <p>For the tests, we plan to accept as much volume as possible, including all bids up to the marginal price of balancing energy we would expect to have accepted in the Balancing Mechanism (BM) during the delivery period. For example, using prices from winter 2021/22, if we expected to run a BM unit at £4,000/MWh during the test period then we would accept all Demand Flexibility Service bids up to £4,000/MWh.</p> <p>In the best-case scenario, the net cost of the tests will be zero (no additional cost) or even negative (we save money):</p> <ul style="list-style-type: none"> <li>• the tests volume would fully offset BM volume we would otherwise have taken, and</li> <li>• the price of the demand reduction would, by definition, be less or equal to the BM price</li> </ul> <p>In reality there is likely to be a small net-cost of the tests:</p> <ul style="list-style-type: none"> <li>• we might need to take bids on generators in the BM to offset lower demand</li> <li>• there may be an arbitrage between the price of the service (£3,000/MWh GAP) and offer prices we would have taken in the BM (e.g. less than £3,000/MWh if there was not scarcity), leading to a net cost for these balancing actions.</li> </ul> <p>In regard to Carbon offsetting this has not formed part of our proposal in regard to any decisions relating to the service. Our objective has been to meet our obligation to ensure a safe and secure network, economically and efficiently. We will review the carbon benefits of the savings once the service has ceased.</p> |



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| <p><b>The test product could attract a price that could be offset in other areas – can the ESO evidence this</b></p> | <p>See above</p>   |
| <p><b>Is 12 tests still the right number if we change the price? What is the rationale for this number.</b></p>      | <p>The key aims of testing in the context are to:</p> <ul style="list-style-type: none"> <li>- maximise the volume participating</li> <li>- create confidence in the forecasts</li> <li>- maintain confidence in the forecasts</li> <li>- make the service a viable proposition for providers and end consumers</li> </ul> <p>The Octopus trial earlier in 2022 showed that four events are needed up-front to create confidence in the forecasts, which is needed for us to be able to rely on DFS volume in case of actual usage. We are achieving that through two onboarding tests plus two regular tests in the provider’s first full month of availability.</p> <p>The two regular tests per month then allow us and providers to maintain confidence in the forecasts over the rest of winter.</p> <p>The results in an invitation for a maximum of 12 tests for providers that are ready to participate from November.</p> <p>Tests will run like the normal process, except for:</p> <ol style="list-style-type: none"> <li>1. only a subset of providers will be invited to participate in each test</li> <li>2. there will be a “Guaranteed Acceptance Price” for each test, which will be published alongside the service requirement for each test</li> </ol> <p>We have had clear feedback from multiple providers that a higher GAP is required to incentivise participation in the service, and this is independent of the number of tests.</p> <p><i>NB: If there are more than 5 real events in a month, the ESO does have the ability within the Procurement rules to cancel/not invite providers to the onboarding/regular tests, as they will already have seen significant usage</i></p> |
| <p><b>Data Consent of Meters – Can consumers sign up via a different supplier or aggregator?</b></p>                 | <p>Consumers will need to allow access to their 30minute Smart Meter MPAN data to a third party that has signed up to the Demand Flexibility Service. From a customer (consumer) perspective this should be a straightforward process – a request for data access will be required which will require the consumer to provide the MPAN number (which can be found on their energy bill), as well as signing up for marketing communications in order to receive messages and alerts about when the service is required.</p>  |
| <p><b>Double counting of MPANs dispute.</b></p>  | <p>To maximise participation, we will allow suppliers and aggregators to participate but will put in place process steps to identify and address duplicate MPANs to reduce double counting as much as possible. Through the consultation stakeholders highlighted this as risk and asked us to put steps in place to mitigate this.</p>  |

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|  | <p>We believe it is the responsibility of the providers (suppliers/ I&amp;C/aggregators) to identify and ensure their customer MPANs are only registered by one party in regard to participation in this service. However, we will carry out the following to help mitigate the risk identified by stakeholders:</p> <p><b>Provider Onboarding:</b><br/> ESO will request that all providers provide a list of all their MPANs during onboarding, after being registered on Single Markets Platform (SMP). ESO will compare MPANs against those already registered and highlight any duplicates, using the DFS auction tool. The new provider will not be able to register the duplicated MPANs. We will retain those listed by existing providers as existing providers have conducted DFS tests already so we have greater confidence in their ability to deliver demand reduction. The onus will then be on the new provider to engage with their customer to resolve the duplication.</p> <p><b>Weekly forecast:</b><br/> As part of the weekly forecast the DFS tool will be used to identify any duplicate MPANs. The ESO will contact both providers to inform them of the MPAN with a duplicate and that they need to engage with their customer to resolve the conflict. In the interim, both entries will be removed from auctions until the conflict is resolved.</p> <p><b>N.B.</b> Industry guidance through Energy UK is that under consumer law the provider that had the latest agreement from the customer can use that customer.</p> <p>If the volume associated with duplicates is significant, we may decide to retain duplicated MPANs to avoid loss of volume. We are working internally to agree our approach and what a likely threshold would need to be for when we would deem this to be appropriate.</p> <p>We are also working with industry and consumer groups to agree Communication Principles, an area of focus will be Consumer Protection.</p> |
| <p><b>DFS Extension Period – What is the purpose of the extension. How does it link with the derogation?</b></p> | <p>In the unlikely event that there continues to be a system requirement for this service, it is prudent to have the ability to extend the life of the service beyond the current 31<sup>st</sup> March deadline. As such, we have included a clause to enable a one month extension, however deem it unlikely that this will be required.</p> <p>As part of the submission of the derogation, we have extended the date by one calendar month to align with the clause in our Article 18 submission.</p>  |