



Demand Flexibility Service (DFS) - Launch Webinar  
4<sup>th</sup> November 2022 (Updated 07.11.22 Slide 18)

# Agenda

- Consultation update
- DFS overview
- DFS requirements
- Eligibility
- Onboarding
- High level process
- DFS tests
- Delivery and payment
- Q&A
- Close

**Do you have a question for the DFS team?**

Please post your question in the chat for the Q&A session.

Speak to our Demand Flexibility Service team directly:

[DemandFlexibility@nationalgrideso.com](mailto:DemandFlexibility@nationalgrideso.com)

# Our panel today



Richard Hanson  
Flexibility Services Development Manager



Francisco Sanchez  
Senior Strategy Analyst



Iris Hau  
Senior Contract Manager



Laura Parkes  
Consumer Strategy Manager



Kashia Cullen-Anderson  
Senior Balancing Markets Development Officer



Michael Coldwell  
Market Requirements  
Future Design and  
Development Manager



Michael McLaughlin  
News and Social Media Manager



Amy Weltevreden  
Market Requirements Senior Manager



# Demand Flexibility Service overview

- The Demand Flexibility Service (DFS) has been developed to allow the ESO to access additional flexibility when the national demand is at its highest – during peak winter days – which is not currently accessible to the ESO.
- This innovative service will support suppliers/aggregators, as well as I&C customers, to incentivise end consumers for voluntarily reducing/flexing their electricity usage.



# Consultation update

- Following the close of the **EBR Article 18 Consultation** for the Demand Flexibility Terms and Conditions, we are pleased to share the final DFS Procurement Documentation (Service Terms and Procurement Rules) on our website following **Ofgem's approval**.
- We are also pleased to confirm Ofgem have approved also approved the Article 6 (4) Derogation of the Electricity Regulation for the Demand Flexibility Service.
- The Demand Flexibility Service is now **live** and runs until the 31<sup>st</sup> March 2023

# Consultation update

- 20 responses were received to the consultation – **thank you** to everyone who took the time to respond
- The majority of the consultation feedback related to the following aspects of the service design:

Feedback theme	ESO response
The commercial proposition and Guaranteed Acceptance Price (GAP)	<ul style="list-style-type: none"><li>• On 20<sup>th</sup> October we:<ul style="list-style-type: none"><li>• confirmed the Guaranteed Acceptance Price (GAP) for DFS tests will be <b>£3000/MWh</b> <a href="https://www.nationalgrideso.com/document/268856/download">https://www.nationalgrideso.com/document/268856/download</a></li><li>• confirmed there will be <b>2 tests/month plus 2 onboarding tests</b> in the 1st month of participation.</li></ul></li></ul>
More information on potential utilisations of the service above and beyond the tests	<ul style="list-style-type: none"><li>• On 20<sup>th</sup> October we:<ul style="list-style-type: none"><li>• published more details on <b>DFS service requirements:</b> <a href="https://www.nationalgrideso.com/document/268851/download">https://www.nationalgrideso.com/document/268851/download</a></li></ul></li></ul>

# Other key changes

The majority of the consultation feedback related to the following aspects of the service design

Feedback theme	ESO response
<b>Supplier communications</b>	<ul style="list-style-type: none"><li>• Rather than a prior approval process to marketing and communications we have moved to <a href="#">Communication Principles</a></li></ul>
<b>DFS initiation measures</b>	<ul style="list-style-type: none"><li>• Providers still need to provide acceptances from their customers that will actively be participating in the event.</li><li>• We have now defined and separated the process for ‘Directly Instructable’ assets and ‘Manually Initiated’ assets.</li></ul>
<b>Data Risk/Assurance: MPAN double counting</b>	<ul style="list-style-type: none"><li>• ESO will request that all providers provide a list of all their MPANs during onboarding, after being registered on SMP. ESO will compare MPANs against those already registered and highlight any duplicates, using the DFS auction tool.</li><li>• It is the responsibility of providers (suppliers/ I&amp;C/aggregators) to identify and remove instances where MPANs are registered by multiple parties</li></ul>
<b>Boundary vs Asset level metering</b>	<ul style="list-style-type: none"><li>• ESO are maintaining metering at the boundary level</li></ul>

Please visit the [DFS webpage](#) to view the full documentation

# Eligibility for DFS

To participate in the DFS, parties need to meet the criterion below:

- 1 MW minimum DFS Unit size, up to 100 MW maximum DFS Unit size. (Parties can register multiple units)
- Be half-hourly metered, (either half-hourly settled, or non-half-hourly settled)
- Be able to respond to an instruction for day-ahead delivery.
- Must be able to respond for a minimum of 30 minutes
- DFS Units can be aggregated on a national basis.

## Exclusions

- Assets with a Capacity Market (CM) contract
- Assets participating in Balancing Services for the ESO or similar services to other 3rd parties (except for ANMS)
- Stacking/splitting other services are not permitted
- MPANs cannot be allocated to more than one Registered DFS Participant

Please ensure all environmental regulations are adhered to as part of any demand reduction. DFS will not be providing any derogation in relation to existing legislation



# Demand Flexibility Service – Requirements

- We will assess whether there is a need for DFS based on factors including the national demand forecast, generation profile, reserve requirements and levels of uncertainty.
- Our requirement for DFS is most likely during the **high demand** periods of the day (typically between 16:00 - 21:00), more likely on weekdays, for 1-3 hours.
- Based on the modelling for the **Winter Outlook Report**, we expect the following requirements for winter 2022-23:

Scenario	Number of days with potential requirement	Volume (MW)
Base case	0-5 days	1,000MW (up to 1,500MW)
Scenario 1	10-35 days	2,000MW (up to 5,500MW)
Scenario 2	additional 10-14 days	3,500MW (up to 12,000MW)

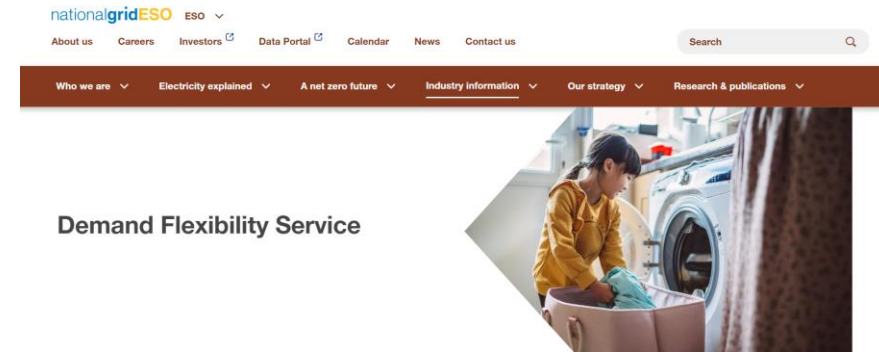
*Table 1 – summary of potential DFS requirements*

More information on DFS Requirements are available on our website in our DFS Requirements paper: <https://www.nationalgrideso.com/industry-information/balancing-services/demand-flexibility>.

# Onboarding process

If you are an energy supplier or aggregator looking to participate in DFS, your onboarding journey includes:

1. To register for a [Single Markets Platform \(SMP\) account](#) and set up your units.
2. To complete an [IT process check](#)
  - Ensure you have access to the correct file templates and check the data flows work
  - DFS IT process check between 09.00 and 12.00.
  - No demand reduction is required and no payment will be paid for this check.

A screenshot of the nationalgrid ESO Single Markets Platform login and registration page. The page features the nationalgrid ESO logo and the text "Single Markets Platform". There are input fields for Username and Password, a "Forgot password?" link, a "Remember me" checkbox, a "Sign in" button, a "Register new account" button, and a "Need help?" link.

Please take a look at the DFS [Participation Guidance Document](#) which will support you on your onboarding journey which includes a link to the [DFS Unit Registration Manual](#)

# Registering DFS units

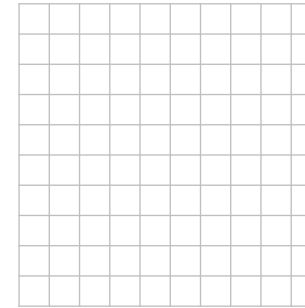
- Providers can register one or more DFS units for the service.
- Units can be registered with a capacity of between 1MW and 100MW.
- Registering a DFS unit allows a provider to bid into the assessment.
- In each submission, the provider specifies a single volume (MW) with a single price (£/ MWh) that a single DFS unit can deliver in a Settlement Period.
- There will be no allocation of specific meters to DFS units at the point of registration; providers can allocate and re-allocate these for different service windows and will keep their own records of this mapping.

# Registering DFS units

- The unit registration starts with creating one or more “empty” DFS units
- How to allocate the volumes to fill them up can be decided in a later stage.
- A new DFS unit will be needed when:
  - 1) A new price band is needed, and/or
  - 2) The 100 MW capacity cap is reached
- Registered capacity of the unit can exceed the total aggregated quantity  
*i.e. submission volume is not obliged to match the registered capacity*

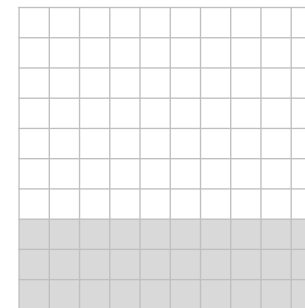
DFS units

Unit-01



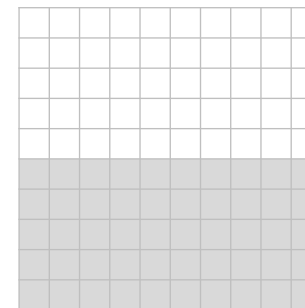
up to 100 MW

Unit-02



up to 70 MW

Unit-03



up to 50 MW



## Next steps

Once you have completed your onboarding journey

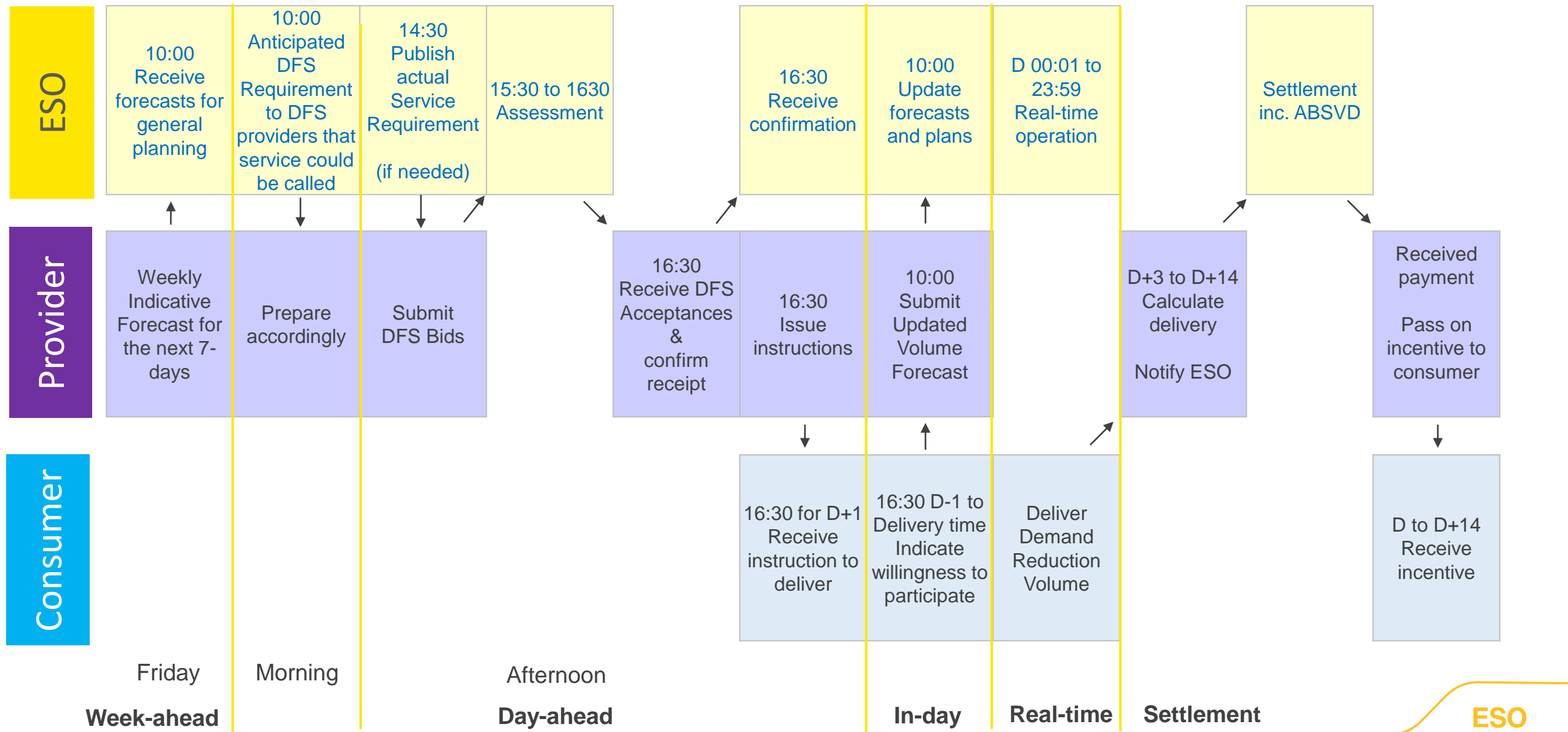
- ✓ You will be able to submit your list of participating MPANs for validation via the DFS Assessment Platform and submit your Weekly Indicative Forecast.
- ✓ Let us know when you are starting your campaign by completing this form '[Approved Providers](#)', and we will add parties to our webpage.
- ✓ You will then be eligible to participate in DFS Tests and real events

You can find a copy of our [Communication Principles](#) on the DFS webpage



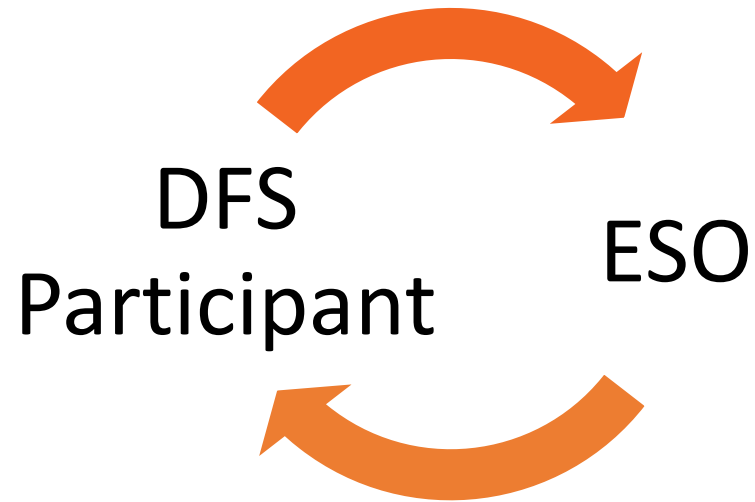
# DFS process

# DFS high level process



# Overview of files

- Weekly Indicative Forecast
- MPAN data
- DFS Bids
- Updated Volume Forecast
- Weekly settlements
- Weekly ABSVD



- Anticipated DFS Requirement Notice
- Service Requirement
- DFS Utilisation Report

## File Templates

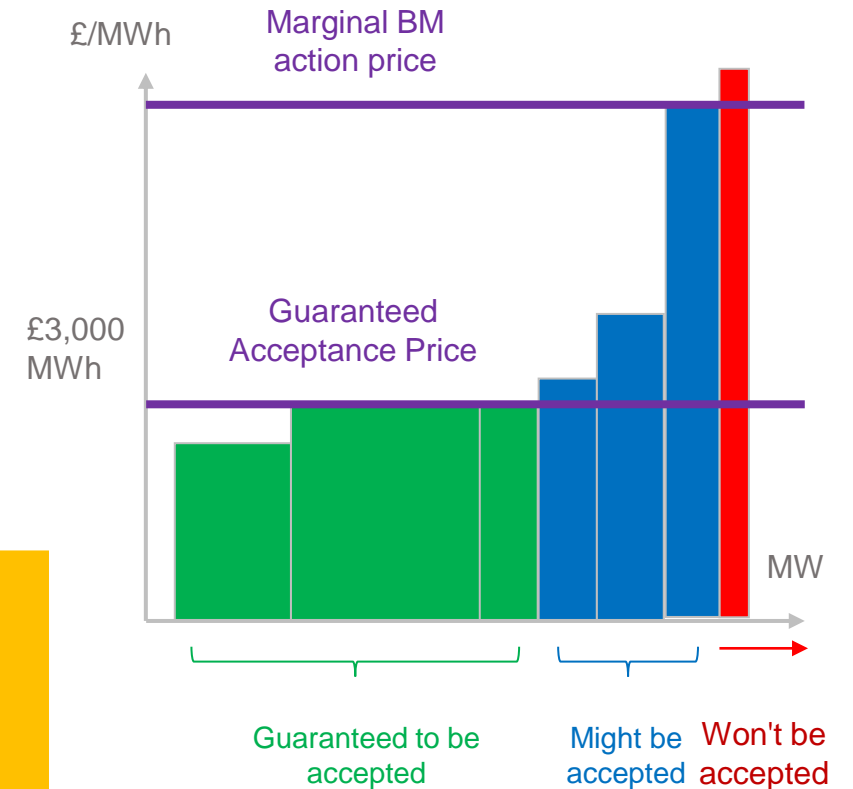
- All relevant file templates are detailed in the [DFS Participation Guidance](#) which will be shared with registered participants.



# DFS tests

- To build confidence in this service and to encourage early participation we will test the end-to-end process via a number of dispatch tests.
- There will be **2 tests/month plus 2 onboarding tests** in the 1st month of participation.
- Tests are subject to a **Guaranteed Acceptance Price** of £3,000/MWh to provide revenue certainty for providers.

- Prices that exceed the marginal BM action price will **not** be accepted.
- The “Guaranteed Acceptance Price” only applies to tests of the service; it is not applicable when we use the service in a non-test scenario.
- For further information on the Guaranteed Acceptance Price, please visit our DFS webpage: <https://www.nationalgrideso.com/industry-information/balancing-services/demand-flexibility>.



# DFS test entitlement

- The following table shows how many DFS tests you will be entitled to participate in, and the window when your first tests will be conducted (subject to completing the onboarding process).
- This is based on the date you submit your first **Weekly Indicative Forecast** to us. The testing period will run from Nov 2022 to 31<sup>st</sup> Mar 2023.

**UPDATE 07.11.22: The ESO we will offer the maximum 12 DFS Test entitlements subject to all onboarding conditions being completed by the 18th November**

Date your first "Weekly Indicative Forecast" is submitted	2 x Onboarding tests + first 2 x Regular Tests will be conducted	Total test entitlement (Onboarding Tests + Regular Tests)
on or before <del>28th Oct 2022</del> <b>18th Nov 2022</b>	Between 1st Nov and 30th Nov 2022	12 (2 + 10)
on or before 25th Nov 2022	Between submission date and 31st Dec 2022	10 (2 + 8)
on or before 30th Dec 2022	Between submission date and 31st Jan 2023	8 (2 + 6)
on or before 27th Jan 2023	Between submission date and 28th Feb 2023	6 (2 + 4)
on or before 24th Feb 2023	Between submission date and 31st Mar 2023	4 (2 + 2)
on or after 1st March 2023	No test entitlement	0 (0 + 0)

# Delivery and payment

## Baseline

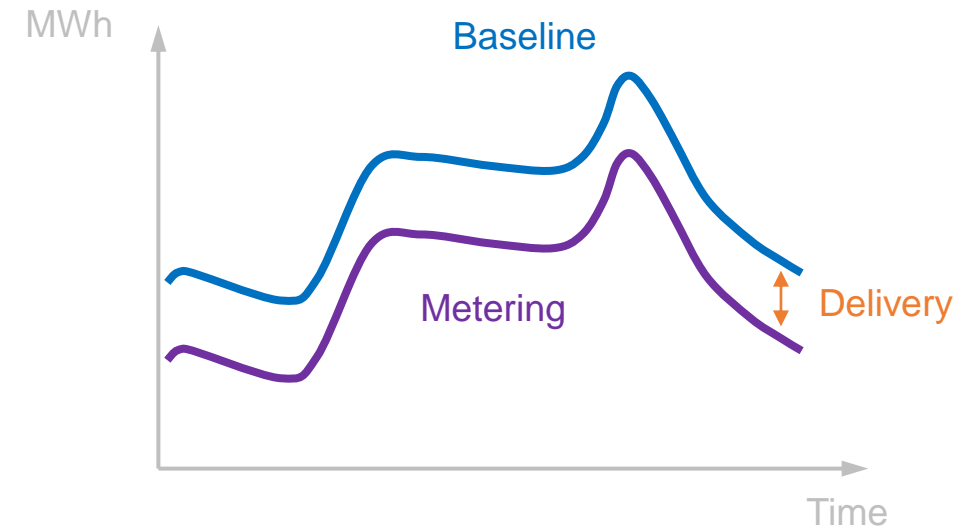
- Providers must provide ESO the total half-hour baseline of their participating units
- We will be using [BSC P376 'Utilising a Baselining Methodology to set Physical Notifications'](#) with an in-day adjustment for domestic consumers

## Metering

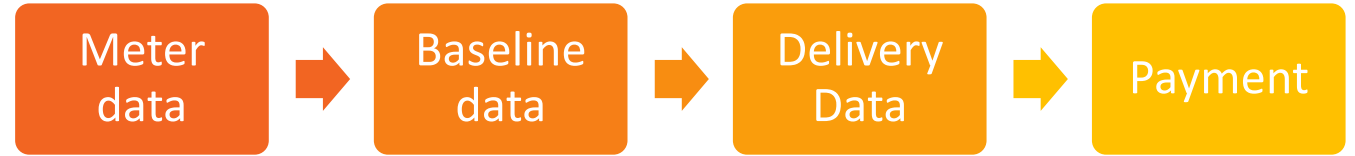
- Providers must provide ESO the total half-hour readings
  - *This requires half-hourly metering for participating consumers*

## Delivery & payment

- Providers must give the ESO their total half-hour calculation for the estimated delivery of their service by their participating units



# Delivery and payment

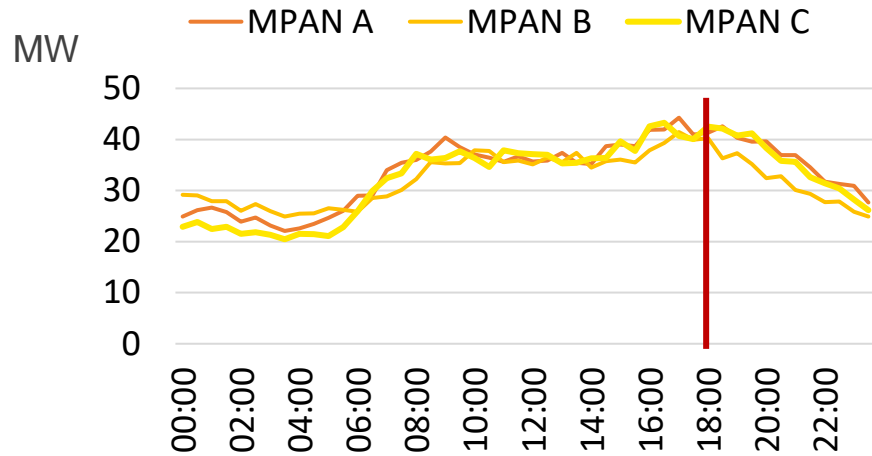


## Baseline data

- Based on the last 60 days of actual metered data for each **Boundary Meter**
- This 60 *historical settlement days* are split into three groups:
  1. **Working Day** (Monday to Friday)
  2. **Non Working Day** (Sat, Sun & Bank Holiday)
  3. **Event Day** (any day the unit took part in the service and delivered a Demand Reduction)
- Calculate **Unadjusted Baseline** (arithmetic mean across eligible days)
- Calculate **In-day Adjustment** (only for domestic consumers)
- For each Settlement Period, the Baseline is calculated as:
$$\text{Baseline Value} = \text{Unadjusted Baseline} + \text{In-day Adjustment}$$
- For domestic consumers, and in-day adjustment allows for the effects of weather on domestic demand.



# Delivery and payment



Unit 1	Baseline MWh	Metered MWh	Delivered MWh
MPAN A	50	20	30
<del>MPAN B</del>	<del>60</del>	<del>70</del>	<del>-10</del>
MPAN C	60	45	15
<b>Total</b>	<b>110</b>	<b>65</b>	<b>45</b>

Providers only need to include delivered MWh for those meters that have shown a turndown, MPANs that failed to deliver can be removed from submission

Date	DFS Provider	From	To	Unit	Baseline MWh	Metered MWh	Delivered MWh	Accepted MW	Accepted (£/MWh)	Payment GBP
17/11/22	AAA	18:00	18:30	Unit 1	110	65	45	40	2,000	90,000

For further details please see the [DFS Participation Guidance Document](#)

# Summary

## Key links

- [Ofgem Approval letter](#)
- [Service Terms](#)
- [Procurement Guidelines](#)
- [Mapping Document](#)

For further details for onboarding please see the [\*\*DFS Participation Guidance\*\*](#).

If you need to contact the Demand Flexibility Team with any queries regarding, onboarding, service design or other general queries, please email [\*\*demandflexibility@nationalgrideso.com\*\*](mailto:demandflexibility@nationalgrideso.com)

For any time-critical operational queries relating to the DFS Assessment Platform and associated processes, please email [\*\*box.eso.dfs@nationalgrideso.com\*\*](mailto:box.eso.dfs@nationalgrideso.com)

# Any questions?

- Please post any questions in the chat function for our Q&A Session
- The slides and a summary of the questions will be uploaded on the ESO website in due course
- Further information can be found on [Demand Flexibility Service](#) webpage
- NOTE: For consumers wishing to flex electricity use and benefit from the service, you can do so via your energy supplier who may contact you directly if they are taking part in our service.

If you would like to speak to our Demand Flexibility Service team directly please email [DemandFlexibility@nationalgrideso.com](mailto:DemandFlexibility@nationalgrideso.com)

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Thank you