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Design Advisory Board
Meeting 10

Anna Stacey
21st November 2019

OFG1161

Agenda

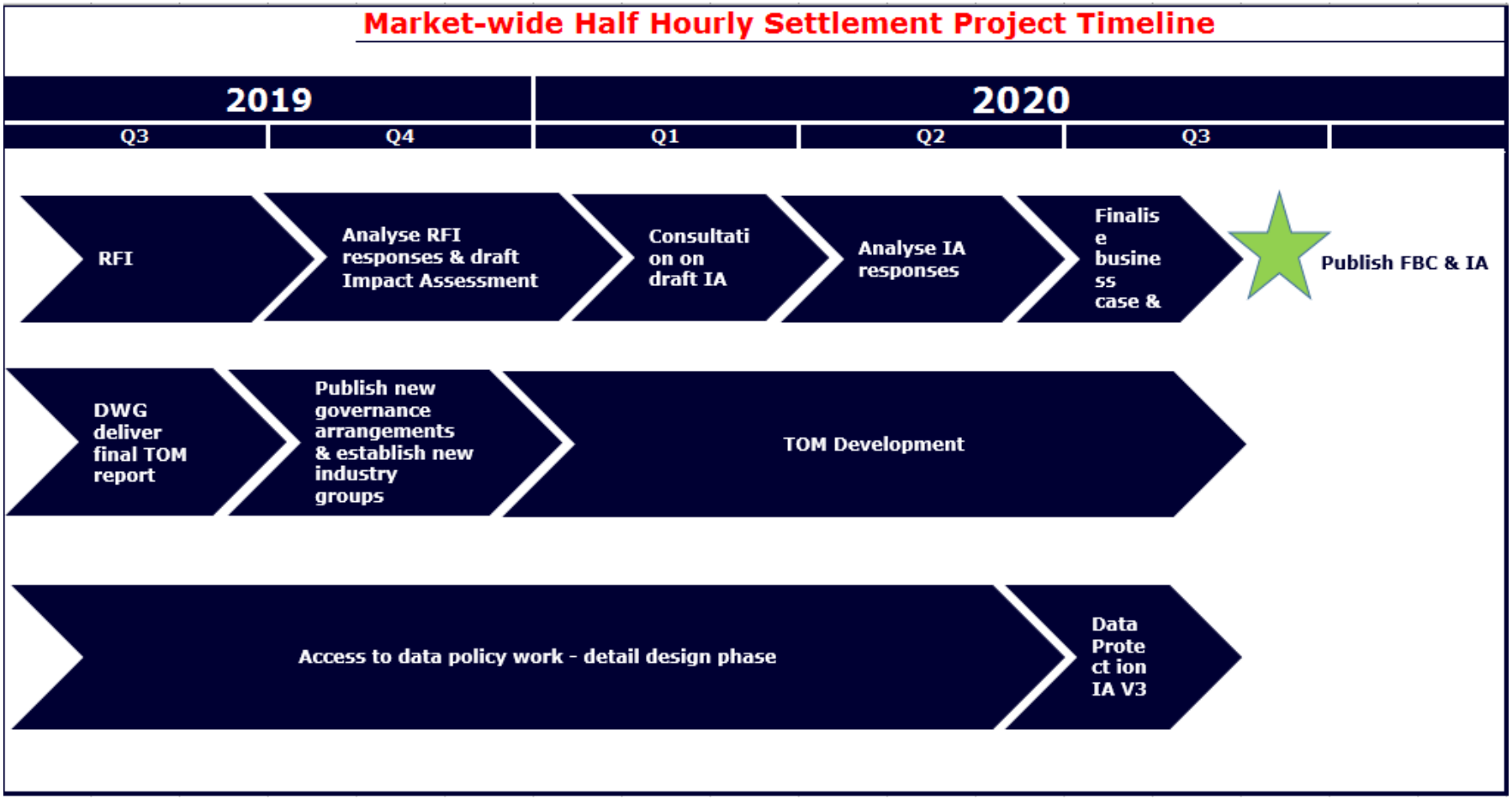
1. Welcome and meeting overview
2. Update on new groups and governance structure
3. Impact Assessment discussion points

Lunch

4. Access to data discussion
5. Access and Forward Looking Charging SCR
6. Wrap up and next steps

Objectives for the day

- Update the DAB on the next steps for the TOM
- Discussion on the Impact Assessment and key points
- Discussion on Access to Data


Market-wide Half Hourly Settlement Project Timeline
2019
2020
Q3
Q4
Q1
Q2
Q3
RFI
Analyse RFI responses & draft Impact Assessment
Consultation on draft IA
Analyse IA responses
Finalise business case &
Publish FBC & IA
DWG deliver final TOM report
Publish new governance arrangements & establish new industry groups
TOM Development
Access to data policy work - detail design phase
Data Protect ion IA V3

Action item	Status
Ofgem to organise meeting with Graham Oakes and ELEXON to discuss potential architecture options for new settlement arrangements	AWG has now been set up to develop these options. These will be brought to the DAB for comment.
Ofgem to look at the security implications of having central settlement hold disaggregated MPAN data and if the data has to be disassociated with an MPAN, once no longer required for settlement, to remain secure	AWG has now been set up and has been tasked with investigating this as part of the design. This will be brought to the DAB for comment.

Action item	Status
Elexon to investigate how the architecture of the TOM will be funded and what the payment mechanism for this is.	From ELEXON: The funding mechanism would be exactly the same as now for all BSC Change and recovered over BSC Parties over the years costs are incurred.
Bring Access to Data Discussion to the DAB	To be completed in this DAB

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Update on new TOM industry groups, governance structure and DAB TOR's

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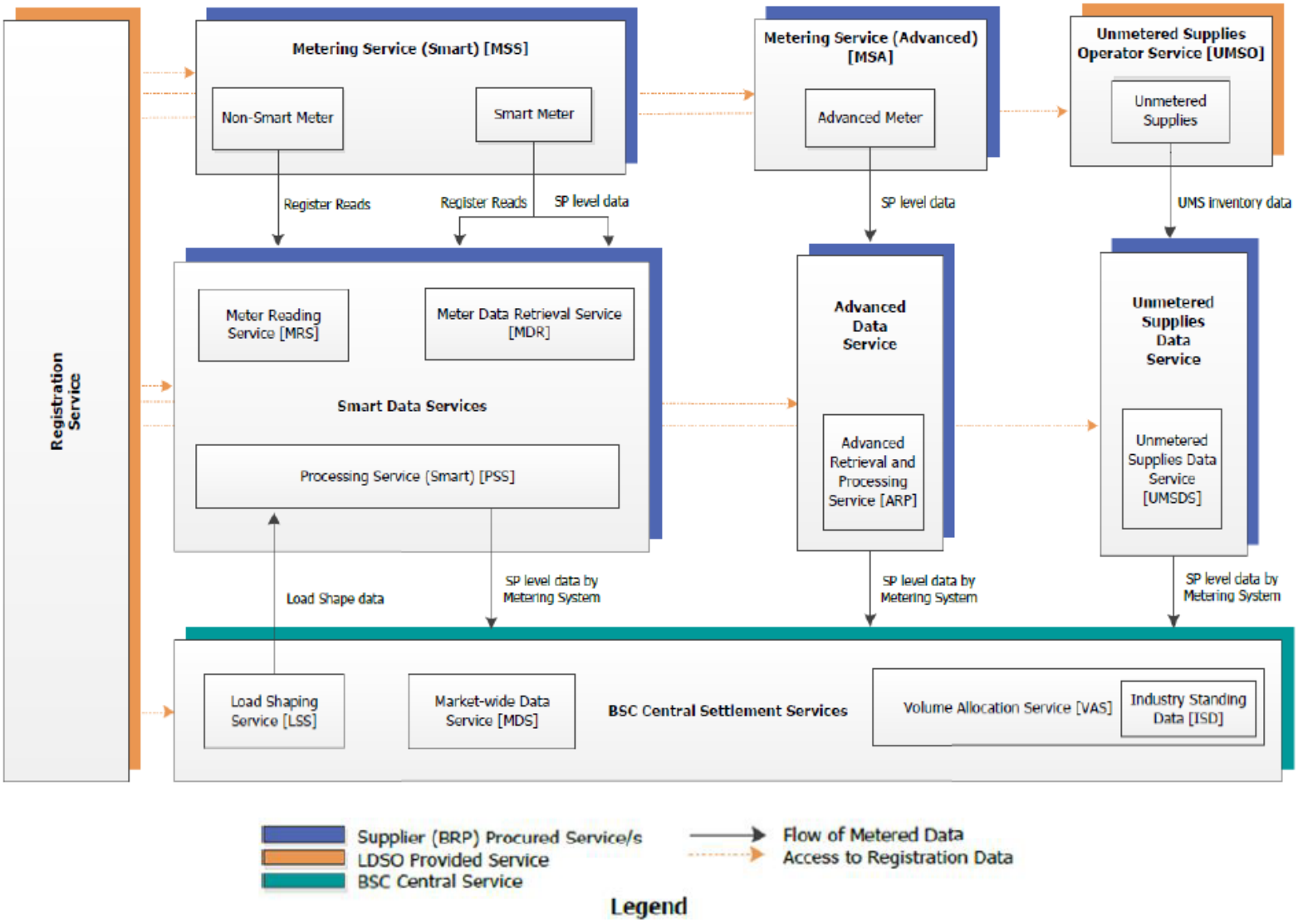
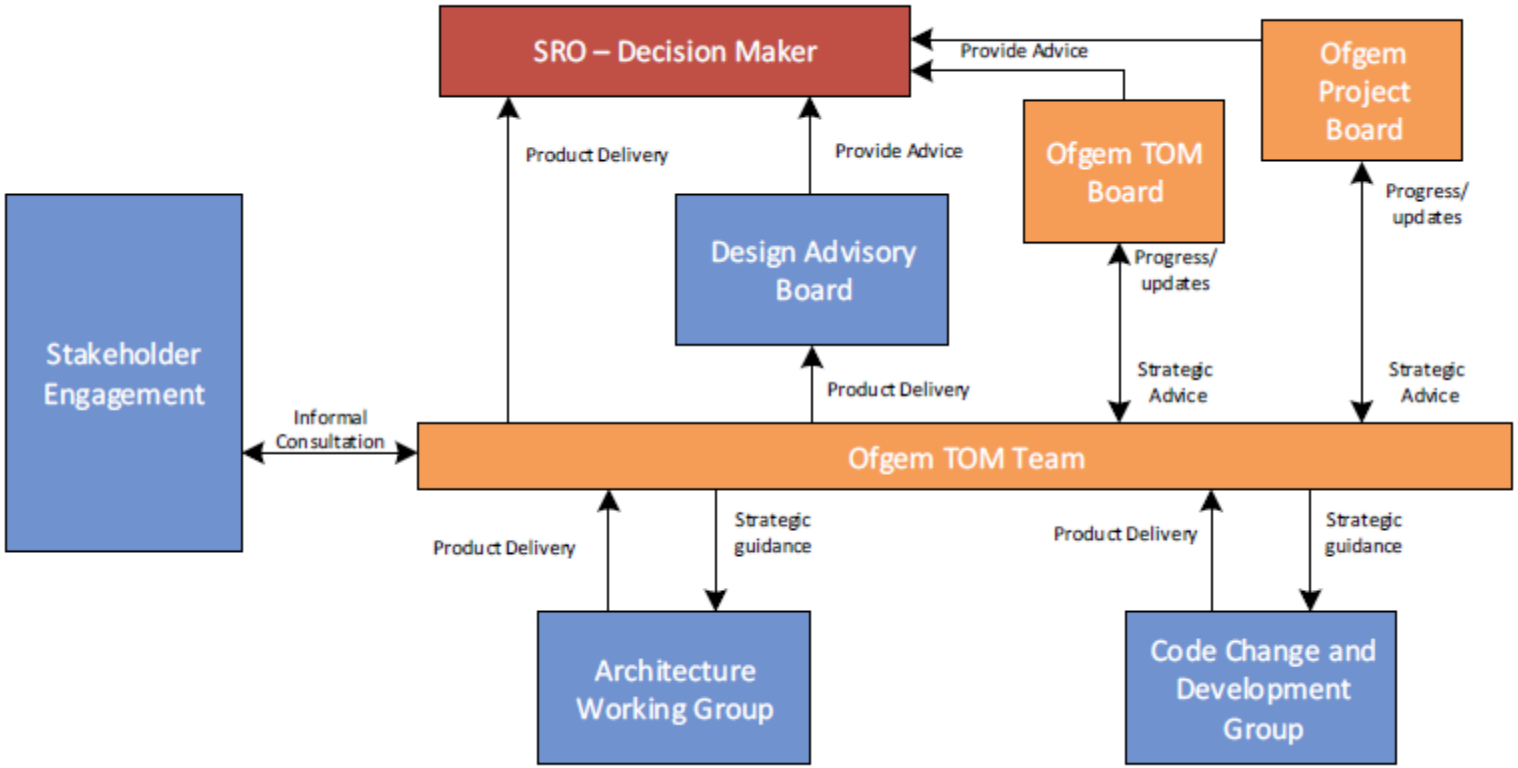
DWG Preferred Target Operating Model



- Following the September DAB we published the proposed new governance arrangement for comment and members. (Here)



- We have made the following updates to the documents:
  - Development Principles:
    - Net Zero reference added
    - Non-aggregated HH data in central settlement – references to potential database removed
  - CCDG ToR: Code Administrator role in CCDG clarified
  - No changes were made to the DAB TORs

Governance Update

- Received a mixture of applications for both the AWG and the CCDG.
- Did not receive any applications from DNO's for either working group
- Successful CCDG & AWG candidates informed
  - Looking to hold first (joint) meeting in December
- Code administrator sub-group is having a pre-meet at the beginning of December.
- Currently drafting up work plans for the groups

CCDG Membership

- Seth Chapman – Morrison Data Services
- Aaron Dickenson – UtiliGroup
- Tom Chevalier – Power Data Associates
- Terry Carr – E.On
- Paul Saker – EDF
- Steven Bradford – Smartest Energy
- Dom Bradbury – OVO
- Lorna Mallon – Scottish Power
- Derek Weaving – British Gas
- James Murphy – Stark
- Andy Knowles – Utilita

AWG Membership

- Seth Chapman – Morrison Data Services
- Paul Akrill – IMServ
- Phillip Twiddy & Abhay Soorya – GemServ/TABASC
- Simon Harrison – DCC
- Gurpal Singh – Shell Retail Energy
- Mike Winter – SSE
- Stuart Cavill – ENSEK
- Richard Warham – St. Clements

DAB Membership

- Replacing:
  - Mitch Donnelly – British Gas (Large Supplier)
  - Professor Catherine Mitchell – Exeter University (academic)
  - Chris King – Siemens (International Experience)
- New Members:
  - Mark Bellman – Scottish Power (Large Supplier)
  - Professor Nicolas Pidgeon – Cardiff University (academic)
  - Rick Hitchcock – Ørsted (Large scale innovator)

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Impact Assessment discussion points

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- RFI responses received in October
- We are engaging with stakeholders to fully understand cost data
- BEIS is modelling potential benefits
- We are now drafting the impact assessment

- Evidence gathering

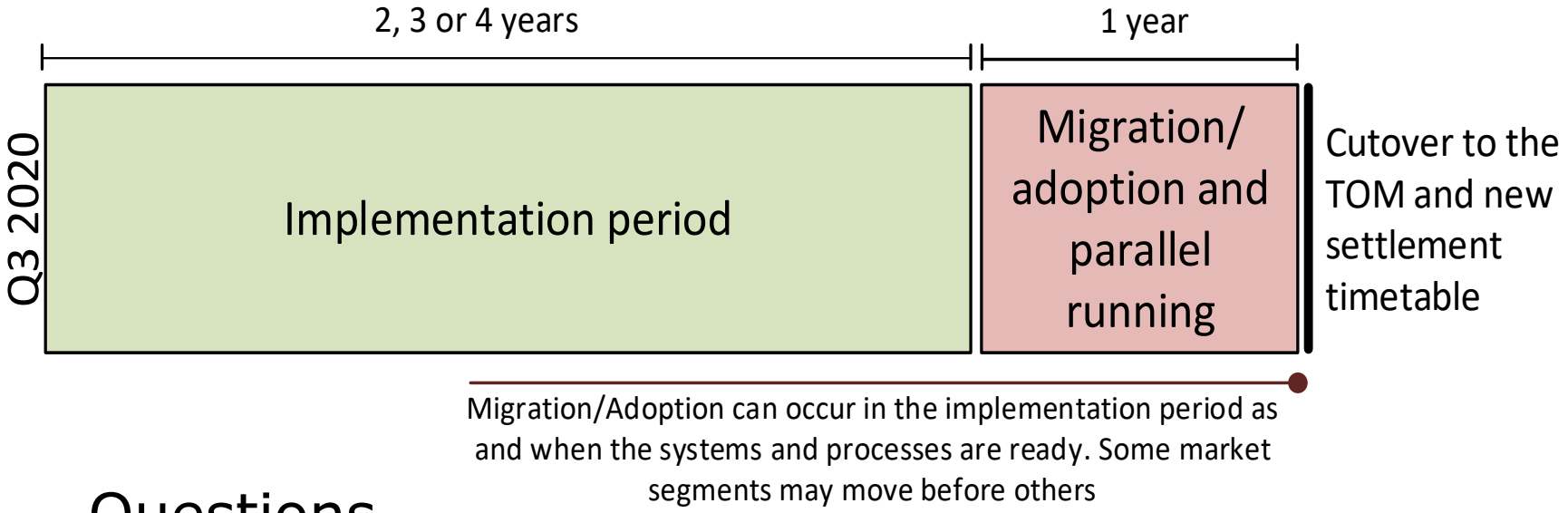
  - small business and small supplier impacts
  - innovation benefits

Questions

1. Which small business sectors may be most affected?
2. Any further suggestions for evidence-gathering?
3. What types of innovation are likely from new entrants?

Figure A: Transition timeline to the new TOM

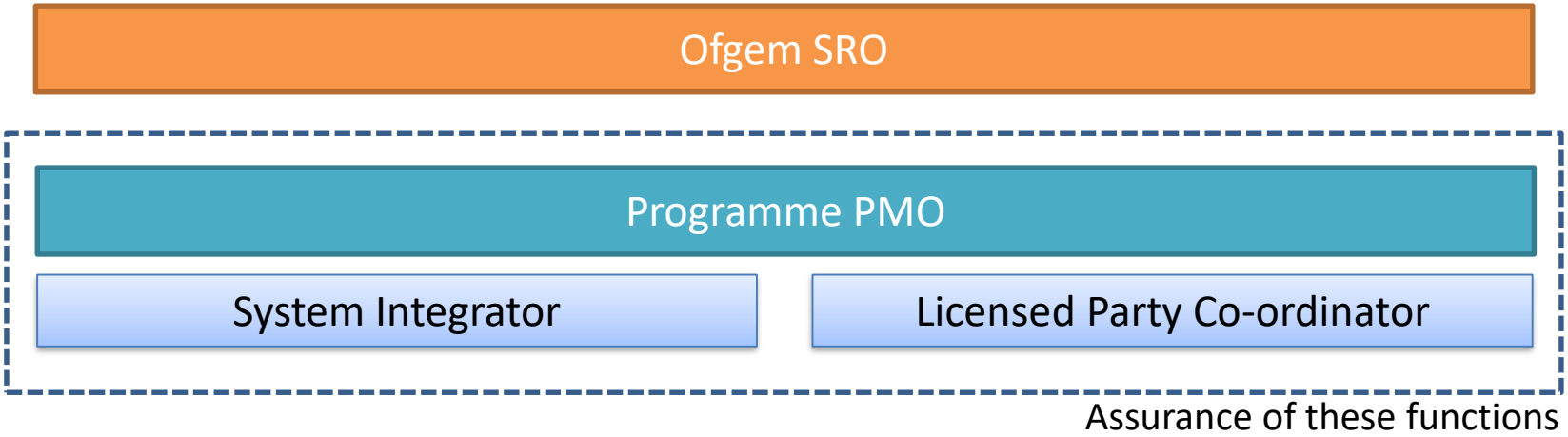
- Implementation timetable: overall deadline, early movers, interim milestones



Questions

1. Industry change programs – what risks do they pose to MHHS timing?
2. Which market segments could move early and what is required to enable this?

- Programme management



- Options for different parties to run functions
- Other set-ups for Programme management?

Settlement Timetable – Disputes Run

- Settlement timetable
  - SF to 5-7 WD and RF to 4 months
  - DWG has recommended a timing of 20 months for the DF run.
  - Previously consulted on 12 month DF run, which responses generally thought was too short.

  - Does the board have any thoughts on how we might approach this in the IA consultation?

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Access to data discussion

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Access to data – remaining policy issues

- We published our access to data decision document in June 2019
- Now identifying & triaging remaining data policy issues that need worked through

- Areas for discussion today:
  - **Access to data rule changes –** How significant is the risk that we leave behind a number of customers stuck on opt-in who do not have HH data privacy concerns?
  - **Opt-out framework** - How quickly can we get it set up for domestic customers? What are the issues associated with collecting opt-out choices ahead of collecting data?
  - **Communications / messaging** - What different roles are there for messaging around settlement / forecasting and associated data sharing choices to consumers?

- If time, we will discuss other outstanding access to data policy issues

Access to data for settlement rules– hypothetical timeline

1) June 2019 – Access to data decision document published

2) Q3 (July-Sept) 2020 – Final decision on MHHS in the Full Business Case (FBC), subject to Impact Assessment

- Data sharing framework remains as it is now

3) Then – Licence amendment to reflect new access to data framework

- Smart meters will start being installed on the basis of opt-out for domestic consumers
- Existing smart meter customers that change contract / supplier will be subject to the new rules
- Suppliers to collect data sharing choices from their customers ahead of the data being collected

It is important that we strike the balance between ensuring customers are given advance notice of their data sharing options vs. the question of storing consumers' data sharing choices in advance of them being relevant – discussed in later slides

4) 2022 – 2024 – Implementation of MHHS

- Data now collected under the new framework, subject to consumer data sharing choices
- Consumers should be regularly reminded of their preferences

Access to data – customer breakdown

Three categories of domestic electricity customers on the date of the licence amendment….

1) Don't want a smart meter
2) Do want a smart meter, but not installed yet
3) Smart meter already installed

Of the number who have their smart meter installed already (will be on opt-in):

- Some will change tariff / supplier before go-live and move to opt-out:
  - ✓ some will not opt-out **(NOO)**
  - × some will exercise their right to opt-out **(OO)**

- Some will not change tariff / supplier before go-live and remain on opt-in:
  - ✓ some will opt-in **(OI)**
  - × some will not opt-in **(NOI)**

Of the number in the NOI category….

- × some would be minded to opt-out anyway **(WOO)**
- ✓ **some would not be minded to opt-out - (WNOO) LOST OPPORTUNITY**

We want to limit the number of WNOO customers stuck on opt-in

Question for DAB 1) – Is there risk that we leave behind a significant number of WNOO customers? Does the board have a view on how significant a pot of customers this may be?

Access to data – opt-out framework

- The licence amendment will enable the opt-out framework to start for ‘new’ customers
- The benefit of this happening sooner is to reduce the number of consumers who may remain on opt-in and not be sharing data long-term, even though they might have been willing to share their data (‘WNOO’ category on previous slide)
- Data will not actually be collected under the MHHS framework until go-live, could be >2 years later
- Suppliers may be required to collect data sharing choices from their customers some time ahead of go-live, in order to provide them advance notice
- Consumers will need to understand the concepts of settlement / forecasting in order to be able to make an informed choice (we talk about messaging later)
- It is important that this choice is collected within a reasonable timeframe ahead of the data being collected, such that the choice remains valid and up-to-date when this happens

Opt-out - Collecting data sharing choices

- We want consumers to be given due advance notice and to be able to make an informed choice
- However, we must also consider the implications of data protection legislation, including GDPR, on the length of time that data sharing choices should be held ahead of the actual data being collected
- We are therefore working on how to implement the opt-out framework as efficiently as possible – when will customers be subject to the opt-out framework, when should suppliers start recording data sharing choices etc.
- We are asking suppliers what the logistical challenges of this will be at the 20/11 CRG

Question for DAB 2) – Does the board have a view as to how we could strike the balance between providing advance notice vs consumers being asked too early?

Opt-out – Communication / messaging

- Fewer consumers opting out will lead to greater system benefits
- We recognise that settlement / forecasting are difficult concepts to explain to consumers
- We recognise that there may be advantages to all consumers receiving a common message from all suppliers using consistent language, to prevent confusion and possible disengagement
- We also however recognise that suppliers, as with other forms of marketing or customer communications, may prefer to tailor their own messages, consistent with their brand
- We therefore want to understand what the best approach would be re: communicating data sharing choices – who should do it, what should the approach be, how far should it be consistent across suppliers etc.
- We are asking to ask stakeholders their views on this at the 20/11 CRG

Question for DAB 3) – Is there any central role in the messaging to consumers of settlement / forecasting? If so, what should this role be and who might play it?

Licence amendment re: access to data

- Working on what we expect the licence amendment to say re: access to data
- Important to consider all resulting implications and consequences
- Will inform the next stage of policy thinking

Messaging / communications re: settlement and forecasting

- Presenting the issues and associated evidence-gathering questions to industry at the BEIS-chaired CRG (20/11)
- Will follow up with an email for suppliers to respond to (voluntarily)
- Will consider setting up a follow-up working group

Open letter

- We are thinking of publishing an open letter, to ensure suppliers understand the current situation and planned changes in relation to accessing data for settlement and forecasting

Question for DAB 4) – Do you seen any common misconceptions in this area which need clarifying?

Remaining policy issues

- For consideration in early-2020

Remaining areas for attention in future:

- Potential central database of settlement data – what are the implications?
- Opt-out process – how will it work?
- Opt-out granularity for domestic customers – daily or monthly – what evidence do we have?
- What issues might arise when 'Existing customers' change supplier or tariff and move to the new framework?
- SoLR / collective switches – implications for suppliers when on-boarding multiple customers
- Future policy review – timing, evidence needed, evidence gathering

Question for DAB 5) - Have we missed anything?

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Access and Forward Looking Charging

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Changes in the electricity system mean there need to be changes in regulation

Drivers

- **Decarbonisation**
- **Technological Change**
- **Digitisation and smart systems**
- **Decentralisation**

Impact on the energy system

Changes in the generation mix
- Intermittent
- Distributed
- Less flexibility
- More storage

More active networks and demand side

New large and uncertain loads
- Heating
- Electric vehicles

Smart technologies

Impact on Regulation

- **Right incentives on market participants**
- **Right incentives on network companies**
- **Right approach to monopoly cost recovery**
- **Right framework for system operators**

Ofgem reforms

- **Retail reforms**
- **RIIO2 price controls**
- **Future Charging and Access**
- **System Operation (SO) reforms**

Project background
Scope of the Access SCR

The Access and Forward-Looking Charging Significant Code Review ("Access SCR") is a major Ofgem led review of the network charging arrangements, with the objective of ensuring electricity networks are used efficiently and flexibly, reflecting users' needs and allowing consumers to benefit from new technologies and services while avoiding unnecessary costs on energy bills in general.

Network access arrangements

What are they
The nature of users' access to the electricity networks (for example, when users can import/export electricity and how much) and how these rights are allocated

Scope of our review

- Improving access choice and definition for larger users
- Clarifying access rights and choices for smaller users, including households
- Improving the allocation of access rights, including enhancing the scope for markets

Industry-led

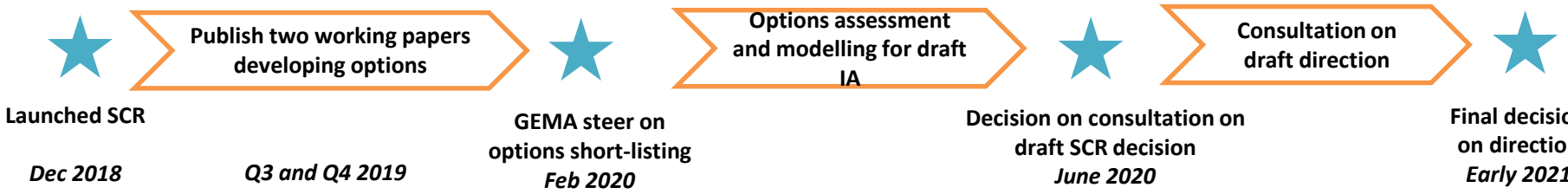
Forward-looking charging arrangements

What are they
The element of of electricity network charges which signal to users how their actions can ether increase or decrease network costs in the future.

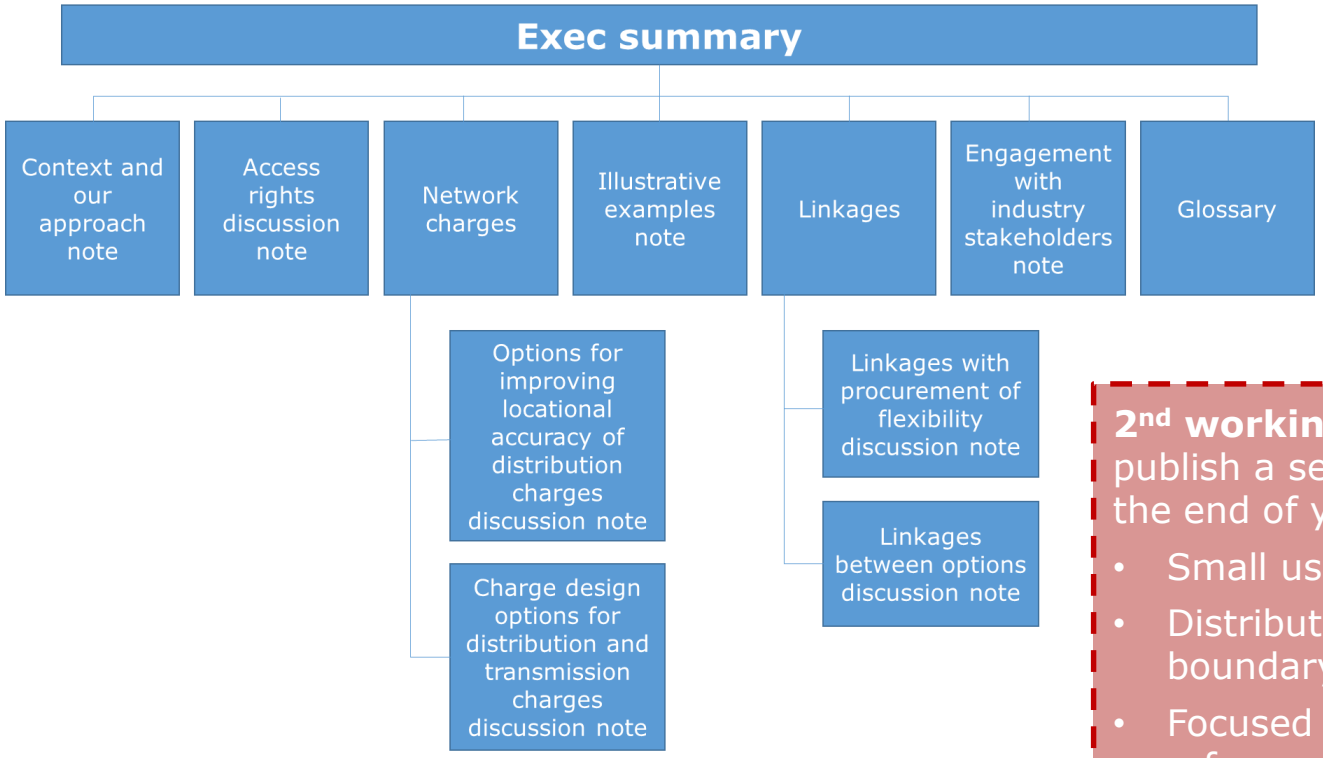
Scope of our review

- Comprehensive review of annual distribution charges
- Review of distribution connection charging
- Focused improvements to annual transmission charges

Project background
Timelines for delivery



- We have been assessing the options to identify a **shortlist** for GEMA decision in **February 2020** against our Guiding Principles.
- In the first half of 2020, we will undertake more detailed assessment of our shortlist, including impact assessment modelling, to inform publication of our **draft SCR conclusions** for **consultation in Summer 2020** (tying in with consultation on the sector methodology for RIIO-ED2).
- We plan to make our **final SCR decision early in 2021**, with **implementation in April 2023** (alongside implementation of RIIO-ED2).



We published our first working paper at the start of September

2nd working paper: We intend to publish a second working paper at the end of year. The paper will cover:

- Small user consumer protections
- Distribution connection charging boundary
- Focused transmission charging reforms

Connection charging boundary
Current arrangements

When we launched the SCR we said we would explore a range of options for the distribution connecting charging boundary. The connection boundary is the extent to which customers pay for a new connection and is currently called **"shallow-ish"** for distribution.

Deep – connecting customers pay for their own assets and all network reinforcement required to facilitate the connection.

Shallow-ish – connecting customers pay for their own assets and contribute to the cost of any network reinforcement. The remainder is funded through use of system charges.

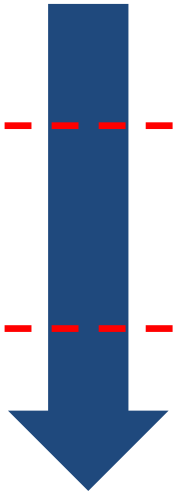
Distribution

Shallow – connecting customers only pay for their own assets. All reinforcement is funded through use of system charges.

Transmission

Connection charging boundary
Options for change

The scope of the work group has been based on the assumption that the current arrangements should provide the baseline, with potential options becoming more shallow. For example:



Keeping the shallow-ish boundary but make other changes (eg, allowing payment over time)

Moving shallower (eg, connecting users only contribute to reinforcement at their voltage level and no higher, with the rest funded by distribution network charges)

Shallow (eg, all reinforcement is funded through distribution network charges)

Access rights choices
Options for change

- Network access rights define the nature of users' access to the network and the capacity they can use (eg how much they can import or export, when and for how long, and whether their access is to be interrupted and what happens if it is).
- It should benefit all network users if we can make better use of capacity and allocate it in a smarter way.

Firmness of rights	This is the extent to which a user's access to the network can be restricted (physical firmness) and their eligibility for compensation (financial firmness) if it is restricted.
Time-profiled rights	This would provide choices other than continuous, year-round access rights (eg 'peak' or 'off-peak' access).
Shared access rights	Users across multiple sites in the same broad area obtain access to the whole network, up to a jointly agreed level.
Other	• Short term rights - This would provide a choice for limited duration access (eg one year) where long term access is not immediately available or where the user does not want it. • New access conditions - This could involve introducing conditions on access, for example 'use-it-or-lose-it' or –use-it-or-sell-it'.

Locational cost models
Scope of workstream

Should charges be based on the Short Run Marginal Cost or Long Run Marginal Cost of the network?

This workstream is considering:

1. **Network cost models** – Options for how forward-looking network costs are estimated.
2. **Locational granularity** – Options for how distribution network charges vary by location.

Which costs should be modelled?

What is the extent of costs to be charged for?

Who should receive the signal?

How granularly should charges be calculated and applied?

Locational cost models
Initial assessment

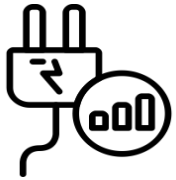
- Our current view is that distribution charges should continue to be based on LRMC based approaches. SRMC approaches may be possible in the future, but we do not believe that an administratively set charge would be the correct approach and there are significant feasibility challenges to distribution level implementation.
- We are continuing to investigate the merits of different options for the estimation of LRMC. We think there is a reasonable case for including replacement costs and possibly other network costs that are closely correlated with network development in the charging signals.
- We note that there are presently inconsistencies in how costs are treated at different voltage levels in any case, which could be treated more consistently.
- We are continuing to assess the different ways in which the network could be grouped, particularly at HV/LV, to reflect differences in network costs by primary substation (or averaged charges across similar primaries).

DUoS charging design
Options

Volumetric ToU

- Different unit rates (in £/kWh) are assigned to set periods of the day called time bands, which reflect the probability that the network will be congested during that period
- Customers are charged for the energy they consume during each time band.

Actual capacity



- Customers are charged in £/kW (or other similar ways), based on their actual maximum capacity on the network measured ex-post
- Customers might only face a charge for their maximum actual capacity during a specified peak period that reflects times of congestion
- Alternatively, customers could face different rates for capacity measured during different time bands. The capacity measurement is reset at specific intervals (eg monthly, quarterly, annually).

Agreed capacity

- Customers (or suppliers on their behalf) would need to agree with their DNO the maximum capacity they require on the network ex-ante
- Customers would pay a £/kW charge (or measured in other similar ways, such as £/kVA), based on the level of agreed capacity
- Where customers exceed their agreed capacity, they may need to pay an exceedance charge (or potentially choose to be curtailed, or be automatically upgraded to a higher capacity band in the next period).

DUoS charging design
Options

Critical peak pricing

- Under Critical Peak Pricing, customers would be charged a high charge during periods when the network is actually congested and a low or no forward-looking charge for the rest (and vast majority) of the year
- The high price periods would be determined and notified in advance (e.g. day ahead)
- Typically the rate is known before the start of the year.

Critical peak rebates

- This is similar to a Critical Peak Pricing option, except that, instead of being charged high prices during a critical peak day, customers would receive rebates for reducing their consumption or capacity during the peak periods
- In order to determine when a customer is entitled to a rebate, A baseline level of usage would need to be agreed with customers

Our focused review of transmission network use of system (TNUoS) charges covers:

TNUoS charges design for demand users

- We have identified three issues with the current "Triad" approach:
  1. Uncertainty due to Triad timings
  2. Triad periods not always aligned with peak network constraints
  3. Distortions between directly-connected and onsite generation
- Initial engagement with the ESO, suggest that Triad may no longer be the best approach for demand charges

TNUoS charges design for Distributed Generation

We have identified a number of potential issues for consideration, including:

- Do differences in the charging arrangements between transmission-connected generators and those connected at lower voltages create issues?
- Is there evidence that charging DG based on Triad creates perverse incentives?
- Is the impact that small DG has on the transmission network similar to that of larger generation?

The "reference node"

- The reference node is from the Transport model which derives the locational charges for different users and areas
- Two key issues with the current approach will be considered
  1. Likelihood of breaching the €2.50/MWh cap
  2. Reducing distortions between different types of generation

When we launched the Access SCR we said we would consider as a priority area:

- **Better defined access rights and greater choice for small users**,
- Distribution use of system charging reform and reforms to the distribution connection boundary

We have established a cross-industry subgroup to consider the suitability of options for small users and any potential adaptations.

What will this subgroup be looking at?

The **primary focus for this subgroup** is the suitability of arrangements for:

- **domestic customers,** with a particular focus on **those who may be vulnerable,** and
- **small non-domestic demand customers**, such as **microbusinesses**.

We want to understand the extent to which the options we have identified for larger users could or should apply directly for these specific user groups, or any adaptations which may be needed.

Specifically, the small users workstream will consider:

- Whether **adaptations** to our options may be needed to enable **domestic and microbusiness** consumers to **engage with and benefit from** new access and charging arrangements.
- This includes considering **whether any protections may be needed** for certain groups.

Overview of options

Charging options

Considering whether any limits on the level of locational or temporal granularity or degree of change in dynamic signals may be appropriate for specific types of small user demand

Access options

Considering whether any limits should apply on the choice of access option or level for specific groups of small users, for some or all demand, including a potential core access level option

Wider retail provisions

Considering the role for principles-based obligations or other retail market provisions, including possible approaches to engaging with consumers in relation to any new arrangements

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Next steps and AOB

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Next Steps and AOB

- Looking to have a DAB once the IA has been published and responses received (~March/April)
- Will also bring work from the AWG and CCDG
- AOB?

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Our core purpose is to ensure that all consumers can get good value and service from the energy market. In support of this we favour market solutions where practical, incentive regulation for monopolies and an approach that seeks to enable innovation and beneficial change whilst protecting consumers.

We will ensure that Ofgem will operate as an efficient organisation, driven by skilled and empowered staff, that will act quickly, predictably and effectively in the consumer interest, based on independent and transparent insight into consumers' experiences and the operation of energy systems and markets.

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