ofgem Making a positive difference for energy consumers

Design Advisory Board
Meeting 12

Anna Stacey
05/08/2020

OFG1161

Agenda

1. Introductions (10:00-10:15)
2. Draft Impact Assessment and Consultation (10:15 – 11:50)
   - Key points
   - Implementation timescales
   - Implementation programme governance
3. Break (11:50-12:05)
4. Target Operating Model working group update (12:05 – 12:45)
   - Code Change and Development Group (CCDG) Update
   - Architecture Working Group (AWG) Update
5. Closing remarks (12:45 – 13:00)

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Draft IA and consultation document

Consumer impacts issues and load shifting assumptions

Potential Consumer Impacts following Settlement Reform – evidence to date

What we're trying to understand

How consumers may react to offers of new products/services incentivised by MHHS:

- Potential take up of load shifting and flexibility -> informs Economic Case
- Distributional impacts across different consumer groups (and how to best assess this)
- May help inform the future framework for consumer protection

Call for Evidence (Feb 2019)

Stakeholder views/evidence sought using 4 themes

Consumer impacts paper (April/June 2020)

CfE responses and our further analysis have identified 6 key issues:

- Educating and empowering consumers regarding their energy usage
- Using communication tools and technology to influence consumer usage behaviour
- Offering consumers increased choice in a future retail energy market
- Role of TPIs
- Consumer protections in a future energy retail market
- Community-based solutions

Potential take up of load shifting and flexibility

Why is this important?

The **economic case** for MHHS is in great part based on the **system benefits** from **peak consumption reduction**. For example, we expect that load shifting away from the peak would lead to declines in wholesale prices and carbon emission costs

To estimate the reduction in peak consumption we looked at two key parameters:

- the take up of smart tariffs
- the level of load shifting by customers on smart tariffs

These parameters are also important in determining the consumer impacts following implementation of Settlement Reform

Potential take up of load shifting and flexibility

Load shifting assumptions in the draft Impact Assessment

Estimated system peak demand shifting attributable to MHHS

	% of consumers on smart tariffs (A)	% of peak demand shifted per consumer (average) (B)	% of system peak demand shift (A)x(B)
High load shifting scenario 2025	20%	30%	6%
High load shifting scenario 2045	60%	50%	30%
Low load shifting scenario 2025	10%	10%	1%
Low load shifting scenario 2045	30%	20%	6%

Distributional impacts on consumers

- Different consumers will be affected differently, depends on their circumstances
- How consumers respond to price signals could be significant
- Need good quality datasets to assess impacts (actual usage, eg SERL data), define consumers – socioeconomic group (CEPA) or income (Ofgem archetypes/revised IA guidance)
- Other relevant factors –
  - ***Time*** – is consumer's lifestyle adaptable to more non-peak usage? (Torriti REDPeAK/DEePRED work – peak usage activity)
  - ***Affordability*** – can consumers access flexibility that suits their means?
  - ***Community*** – shared costs/benefits, overcome barriers for individuals (VPPs, aggregator-managed services, works in remote and urban areas)

Business Case

Option 1 - Keep the existing elective HHS arrangements

Option 2 - MHHS for all MPANs over a period of about 4 years (preferred by Ofgem)

Option 3 - MHHS for import MPANs over a period of about 5 years

Expected range of net benefit to GB consumers: £1,607m-£4,557m up to 2045

Plus unquantified consumer benefits from greater competition and innovation in new products and services

Monetised costs of MHHS option 2, by stakeholder type

Stakeholder type	Transitional costs (£2019, undiscounted)	Annual ongoing net costs (£2019, undiscounted)	Total net costs (2021-2045), 2018 NPV
Suppliers	£88.5m	£24.2m	£358.4m
Supplier Agents	£12.5m	£6.9m	£91.4m
DNOs/ IDNOs	£1.9m	£0.1m	£2.2m
Central costs	£39.9m	£0.6m	£40.6m
Total costs	**£142.7m**	**£31.8m**	**£492.5m**

'Central costs' includes costs for the DCC, ELEXON, ElectraLink, the ESO and the LCCC. It also includes programme and post-implementation costs. In the Final IA we will add Ofgem costs to this category.

Estimated supplier costs of MHHS option 2

Costs MHHS option 2	Transitional costs (undiscounted, £2019)	Annual ongoing net costs (undiscounted, £2019)	Total net costs (2021-2045), 2018 NPV
IT systems costs	£54.9m	£13.5m	
Operational costs	£21.5m	£12.8m	
Data aggregation costs	£3.3m	£0.0m	
Balancing costs	£6.0m	-£2.1m	
Customer messaging costs	£2.8m	£0.0m	
Total costs	**£88.5m**	**£24.2m**	**£358.4m**

- Aggregated supplier costs masks significant variations
- We remain keen to get information from small suppliers about costs

Estimated cost range (all stakeholders), MHHS option 2

- RFI respondents qualified their quantitative responses using a +/- uncertainty margin. We used this information to build a cost range. The central cost is our best estimate. We have used this range to estimate the potential overall net impacts for consumers.

Uncertainty range	Total transitional costs (£2019, undiscounted)	Total annual ongoing net costs (£2019, undiscounted)	Total net costs (2021-2045), 2018 NPV
High	£155.4m	£39.3m	£591.9m
Central	**£142.7m**	**£31.8m**	**£492.5m**
Low	£132.2m	£24.6m	£399.7m

Section 4 of the Draft IA sets out

- our estimate of the monetised direct benefits of MHHS using a GB power market model, the Dynamic Dispatch Model
- an estimate of carbon savings
- sensitivity analysis to capture potential benefits at distribution level

It also sets out how we propose to calculate and attribute benefits across related Ofgem projects (especially the Targeted Charging Review and the Access and Forward-looking Charging Reform)

The section concludes that MHHS should bring very significant benefits

System-wide benefits from load shifting, MHHS

Summary of monetised direct benefits - MHHS option 2	2018 NPV, £ millions, cumulative (2025-2045)
System-wide net welfare benefits from load shifting	Scenario 1 (low load shifting) £1,200m
	Scenario 2 (high load shifting) £3,600m
Consumer benefits (consumer surplus) from load shifting	Scenario1 (low load shifting) £2,100m
	Scenario 2 (high load shifting) £5,050m
Benefits from including export-related MPANs in MHHS	Mostly qualitative description at this stage
Better matching of supply and demand reduces balancing costs[1]	£53m
Better quality settlement data reduces errors	Qualitative description at this stage
Shorter settlement timetable reduces collateral requirements	Qualitative description at this stage

[1] These benefits are included in the net costs as a cost saving.

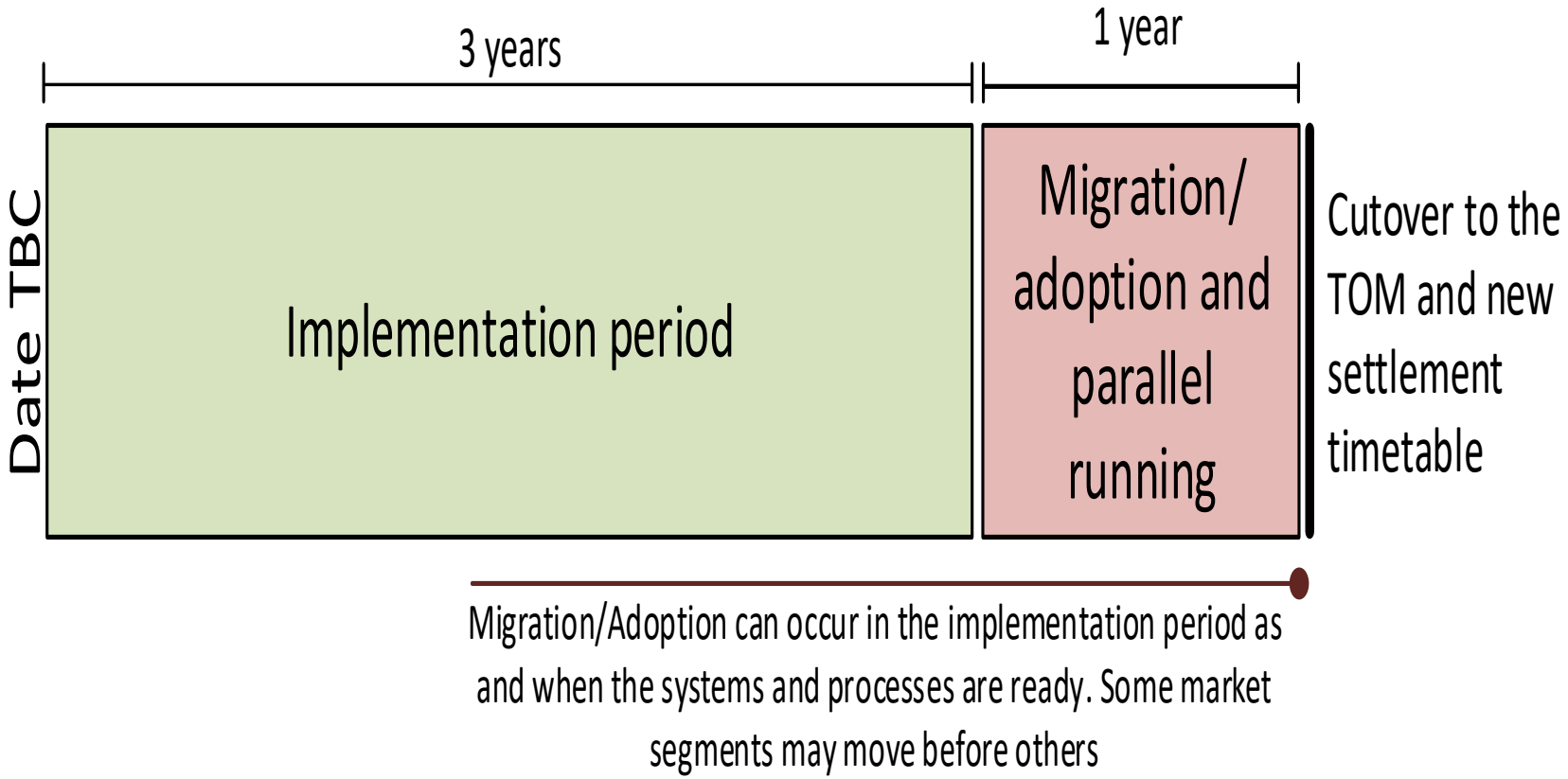
Even the lowest benefit sensitivity scenario (low load shifting scenario - 2h shifting window) shows substantial positive net welfare benefits above the costs, albeit by a significantly lower margin than our central estimate (Central Fossil Fuel prices – 8h shifting window)

MHHS under option 2 is expected to have a significant net benefit for consumers compared with the counterfactual

Summary of net benefits - option 2	Low Shifting (scenario 1)			High Shifting (scenario 2)		
Total monetised benefits for consumers	£2,100m			£5,050m		
	Costs - low case	**Costs – central case**	**Costs - high case**	**Costs - low case**	**Costs – central case**	**Costs - High case**
Total monetised costs	£399.7m	£492.5m	£591.9m	£399.7m	£492.5m	£591.9m
Net Benefits of MHHS	1,700.3m	**£1,607.5m**	£1,508.1m	£4,650.3m	**£4,557.5m**	£4,458.1m

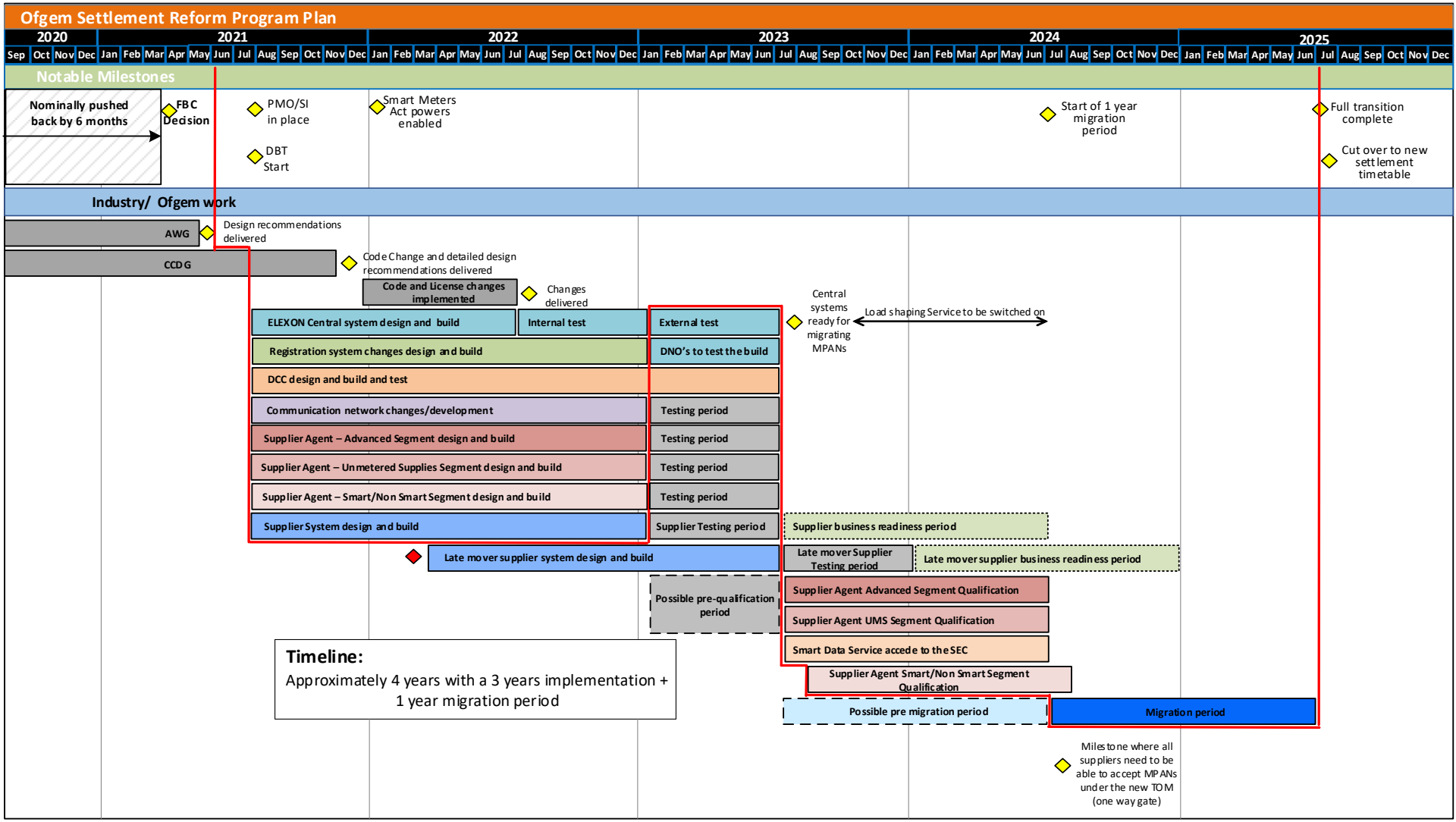
We are particularly interested to receive any new evidence about:

- cost drivers, and cost estimates, for your business
- implementation timetables given COVID-19



Implementation

Proposed Transition Timetable (indicative)



Implementation programme governance

- Central oversight is required for an orderly and timely transition

- Several oversight roles are likely to be necessary:
  - Programme Management Office (PMO) – create and manage the overall delivery plan
  - System Integrator – oversee, coordinate and manage the integration, testing and transition to live operations
  - Programme Party Co-ordinator – monitor and track progress of all parties. Provide information and updates relevant to the programme and scrutinise the parties self assessments and party readiness
  - Assurance Function – to assure the above roles

- Ofgem is overall project sponsor but need not necessarily lead all aspects of delivery. We are considering three possible options for delivery of these functions.

Implementation Delivery Options

Hands off – low Ofgem involvement	Hybrid – medium Ofgem involvement	Hands on – high Ofgem involvement
• Industry party would take responsibility for procuring and managing all programme management functions. • Industry party would report to governance that remains accountable to Ofgem SRO.	• Ofgem retains some responsibility over programme management functions and delegates others to a relevant industry party. • SI role carried out by a party with this expertise. • Ofgem could ask industry to take on PMO and/or PPC roles, putting more responsibility on industry to deliver this reform. • Ofgem could retain assurance role.	• Ofgem takes responsibility for procuring and/or managing programme management functions, with external party leading the System Integrator (SI) role.

Discussion points for DAB

- What key factors should be taken into account when deciding the governance structure and delivery model?
- How much involvement you think Ofgem should have in delivery of MHHS?
  - What other parties might be suitable for (some of) the roles?
- What are your experiences with different models in the past: Nexus (early and late stages), P272, Faster Switching, ALT-HAN?

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Break

Restarting at 12:05

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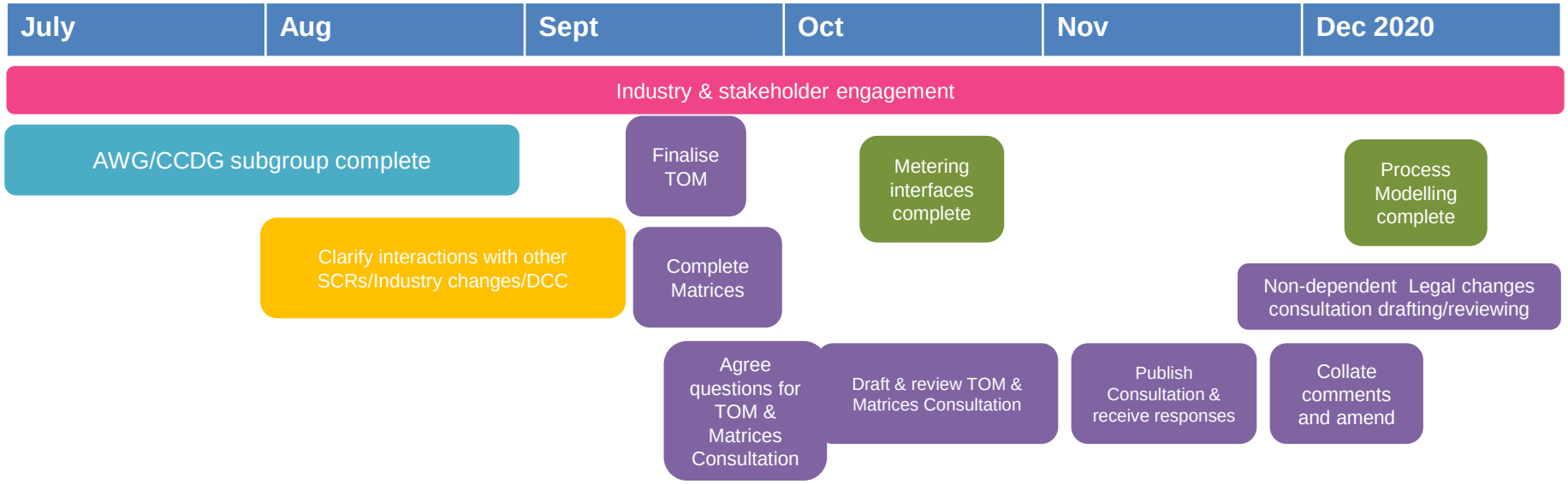
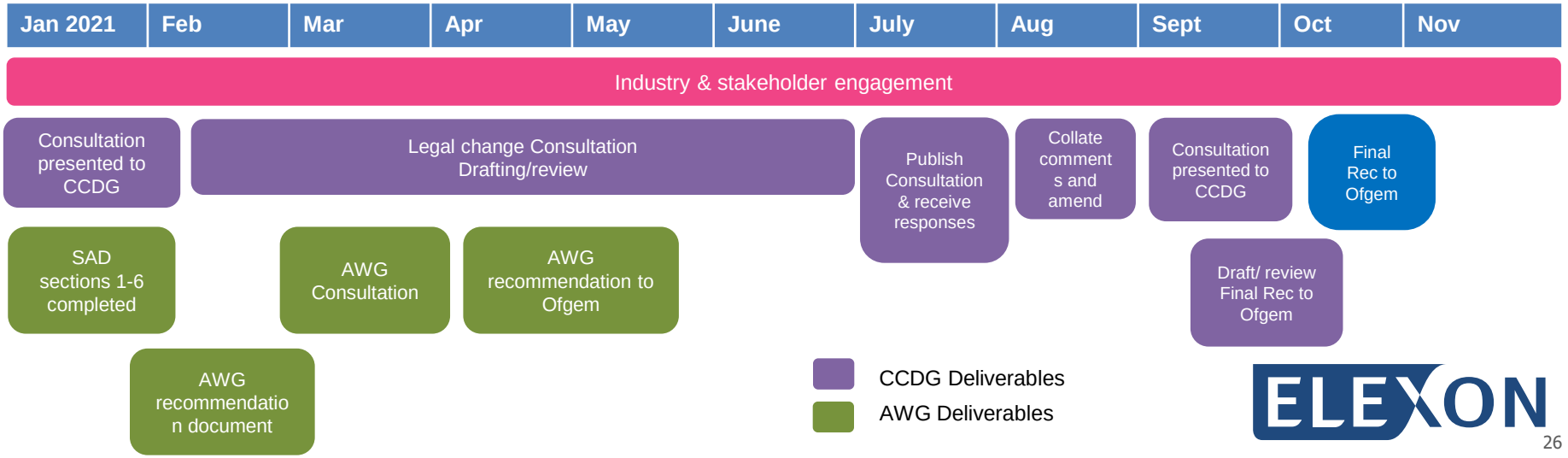
Target Operating Model

CCDG/AWG Updated high level plan





Code Change and Development Group (CCDG) Update

Detailed Design – Proposals for divergence from DWG's TOM:

- Remove Measurement Classes (MC's) and replace with Consumption Component Classes (CCC) aligned with TOM market segments
- Allow longer transition for switched load customers (e.g. e7 & RTS) with non-smart meters – maintain Profile Class data item for Load Shaping Service to ID these meters in this period
- Create Load Shapes for Unmetered Supplies and Advanced segments to be used for defaulting (last resort) only

Code change update:

- BSC and DCUSA on track
- MRA/REC – MRA changes identified – working to understand the effect of the REC delay
- CUSC – Engaging in October after legal text agreed for TCR CUSC modifications
- SEC – TABASC considering a DCC solution for MHHS August 6th

Architecture Working Group (AWG) Update

Guiding principles – The AWG together agreed 3 sets of principles which the group will assess their recommendations against.

- Solutions Architecture Principles
- Data Architecture Principles
- Security Guidelines

Interface specifications:

The AWG are completing the interface specifications for the different services flows required for settlement. The interface specs include:

- Identification of the data items needed
- Transport details – trigger, frequency, volume, timing etc
- Flow details – size and volume, meta data, payload
- Security considerations – permissions, encryption, privacy classification.

The group are also identifying the key business processes which will ensure all key flows are captured.

Considerations are still being had around scope of what is included.

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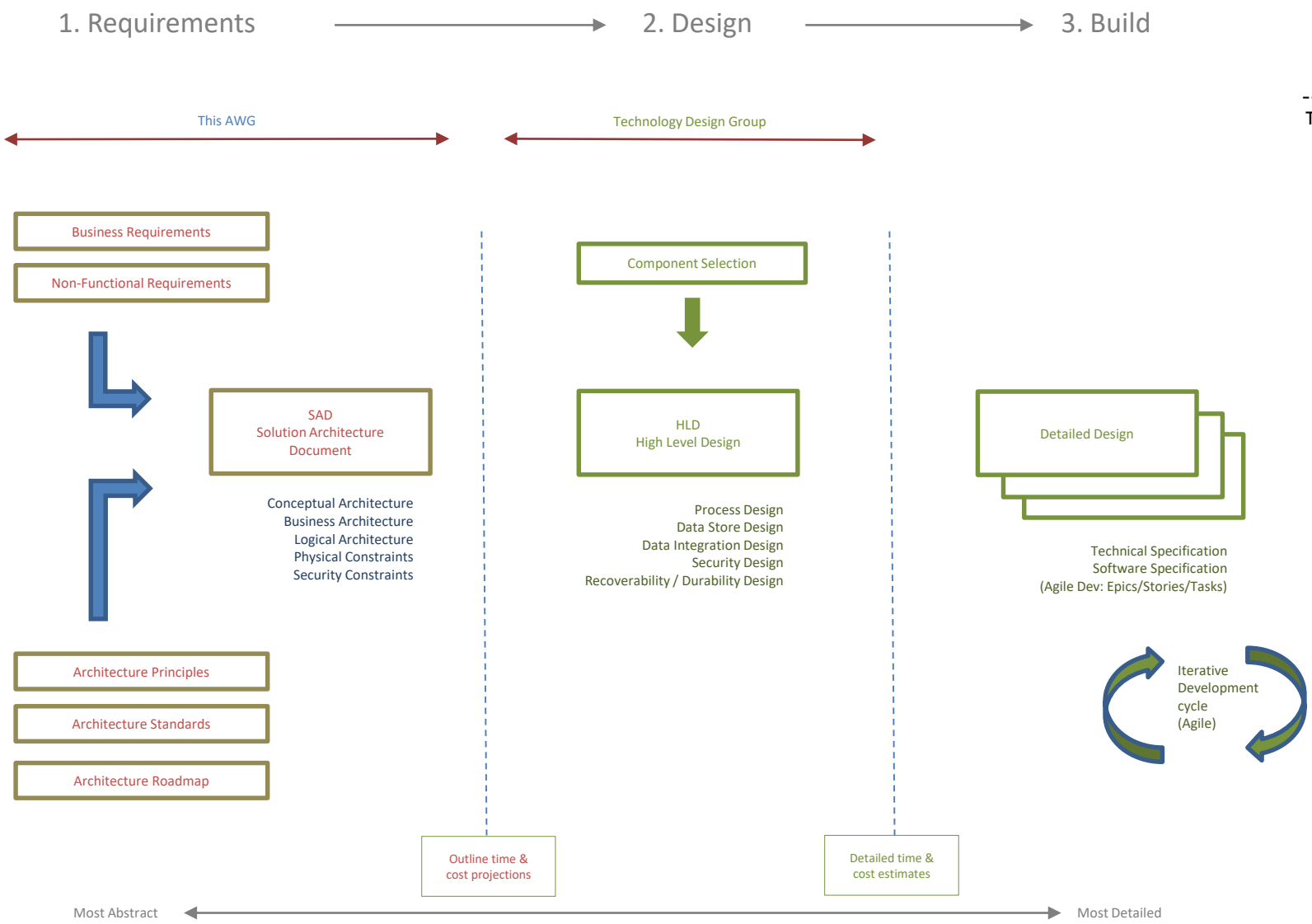
Architecture Working Group (AWG) Update



Closing remarks

- Responses to the Draft IA and consultation are due on the 14th September 2020
- Next DAB to be held, remotely, at the end of September/beginning of October.
  - Doodle poll will be sent out shortly to find a suitable date
- AOB

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Ofgem is the Office of Gas and Electricity Markets. We are a non-ministerial government department and an independent National Regulatory Authority, recognised by EU Directives. Our role is to protect consumers now and in the future by working to deliver a greener, fairer energy system.

We do this by:

- **working with Government, industry and consumer groups to deliver a net zero economy at the lowest cost to consumers.**
- **stamping out sharp and bad practice, ensuring fair treatment for all consumers, especially the vulnerable.**
- **enabling competition and innovation, which drives down prices and results in new products and services for consumers.**

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