

Design Advisory Board Meeting 8



Anna Stacey 4/06/2019



- 1. Welcome, meeting overview and actions (Ofgem)
- 2. Consumer impacts responses to CfE (Ofgem)
- 3. Consultation responses to preferred TOM (ELEXON)

Lunch

- 4. Transition arrangements and consultation (ELEXON)
- 5. Energy Data Task Force key themes (Ofgem)
- 6. Closing remarks



- Discussion on consumer impacts call for evidence responses
- Update the DAB on the consultation responses to the preferred TOM
- Update the DAB on the transition approach developed by the DWG and gather input on approach and consultation

| Action item | Status |
|---|-------------------------------------|
| Ofgem to meet with Chris Allanson to discuss how to manage interaction between DSO transition and settlement reform | No longer required |
| Ofgem to organize a discussion with the DAB to have a talk on future technology (including block chain) and how they could interact or be used in settlement | Completed in DAB 7 |
| Ofgem and ELEXON to consider how technology can reduce the timing for the first settlement run (below ten days) and if this is not possible, how a reduced timing could be transitioned into using a phased approach at the end state | Completed – proposing 5-7WD for SF. |

Update on action items

| Action item | Status |
|--|---|
| Ofgem to organise meeting with Graham Oakes and ELEXON to discuss potential architecture options for new settlement arrangements | To be completed once ELEXON have potential options |
| Consider if statistical approaches can reduce how much data is needed to create accurate load shapes for estimating missing HH data (ie is 1/30 th of all consumption data enough – will it be useful to treat the load shape as a deviation from the long-run average rather than creating from scratch each day?) and discuss with Graham Oakes | All HH data for meters will be pulled daily and all HH data will be used to create that daily load shape. Therefore there is little risk of creating inaccurate load shapes. (However, in the case of small sample size then a Bayesian approach may be helpful to reduce the impact of outliers.) |
| 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 | Ongoing |

| Action item | Status |
|---|--|
| ELEXON to look into whether dispute run data can help inform consideration on the appropriate settlement timetable | Completed |
| Ofgem to organise a discussion with the DAB and BEIS on the future of consumer issues in relation to settlement. | Completed in DAB 7 |
| Ofgem to set up meeting with Catherine Mitchell, ELEXON and relevant teams in Ofgem to discuss the system operator role | Ongoing |
| Elexon to discuss the impacts of switching on HHS with the Ofgem switching team. | Completed and ongoing discussions continue between Ofgem teams |

| Action item | Status |
|---|--|
| Elexon to investigate how the architecture of the TOM will be funded and what the payment mechanism for this is. | Ongoing |
| Action for the DWG to set out a number of scenarios of how migration and transition could occur and the pros/cons of these. | Completed – part of transition approach work |
| ELEXON to make the wording clear on the transition principles. | Completed |



Agent Functions

- Published our decision in late May. <u>Here</u>.
- No centralisation of agent functions
- But we have said we think might be a case for sending non-aggregated data to central settlement
- Opens possibility of database with HH data across suppliers
- With appropriate governance, could support innovation eg. local energy, peer to peer, public interest uses
- Supplier agents argued against this on a number of grounds
 - Competition
 - Economic impact
 - Security
 - Other ways to achieve benefits eg. Blockchain
- DWG preferred TOM makes use of non-aggregated data; but minority view put forward TOM where aggregation remains outside central settlement
- Need to use Impact Assessment to look at costs and benefits
- Need to evaluate security
- Competition important not to have gatekeepers to the data



Policy work stream

Access to data

• Aim to publish decision shortly.

Consumer issues

- Published our call for evidence on consumer impacts in Feb 2019. We received 20 responses.
- Aim to publish a response soon.

Business Case

- We are working on a draft RFI that will feed into the Impact Assessment and Full Business Case.
- Plan to publish a draft in late June with final version in the summer

Target Operating Model

- DWG consulted on preferred TOM
- Worked on the transition approach and will consult
- Due to deliver final report on preferred TOM and transition approach in August



Consumer impacts – responses to CfE





Aim

- How will consumers react?
- Load shifting and flexibility -> informs economic case
- Network charging options
- Distributional impact
- Framework for protection and engagement

Our themes: domestic and small non-domestic consumer impacts

- Consumer engagement with energy usage
- Consumer ability/willingness to load shift (potential responsiveness, barriers/risks, possible distributional impacts arising)
- Consumer ability/willingness to load shift by adopting new technology
- Consumer interest in choice of tariffs, eg time-based



20 responses – range of stakeholders

Main messages

- Tailored customer communications, however provided, work best simple, clear, easy to understand messaging
- Data sharing a precursor to effective customer communication and offer of 'smart' benefits, otherwise limits engagement
- > Make benefits tangible defined and relatable cost savings to encourage engagement and load shifting
- 'Buy and try' give consumers long cooling off periods, no exit fees on flexibility tariffs & services protect from risk of mis-selling, being on an unsuitable tariff
- Vulnerable consumers more at risk due to affordability, access to new technology issues. Need support, eg targeted through existing schemes (ECO), with new technology
- Ofgem encouraged to do rigorous distributional analysis make fewer assumptions about future consumer behaviour
- Consumers will prefer future tariffs/options matching their lifestyles, few will prefer flexible, dynamic ToU tariffs automation with manual override?



Main messages

> Same issues, broadly, as domestic consumers

In addition:

- > Small non-domestic consumers are 'time poor', rely on trusted parties (TPIs) and buy on price
- > Would like a role for Ofgem in regulating TPIs to level the playing field with licensed suppliers
- Saving energy more attractive than flexibility sell the wider benefits (environment)
- Need an economic case for flexibility business benefits from investment, community schemes (shared costs)
- Diversity of consumers (sector and size) will impact ability to flex, use technology hospitality trade

> All of above affects take-up of ToU tariffs - unlikely



Preferred TOM consultation responses



Design Advisory Board

- Preferred TOM Feb./Mar. 2019 Consultation
- Transitional Approach Development
- Performance Assurance Approach
- Settlement Timetable and Disputes
- Transition Approach June 2019 Consultation
- Next Steps

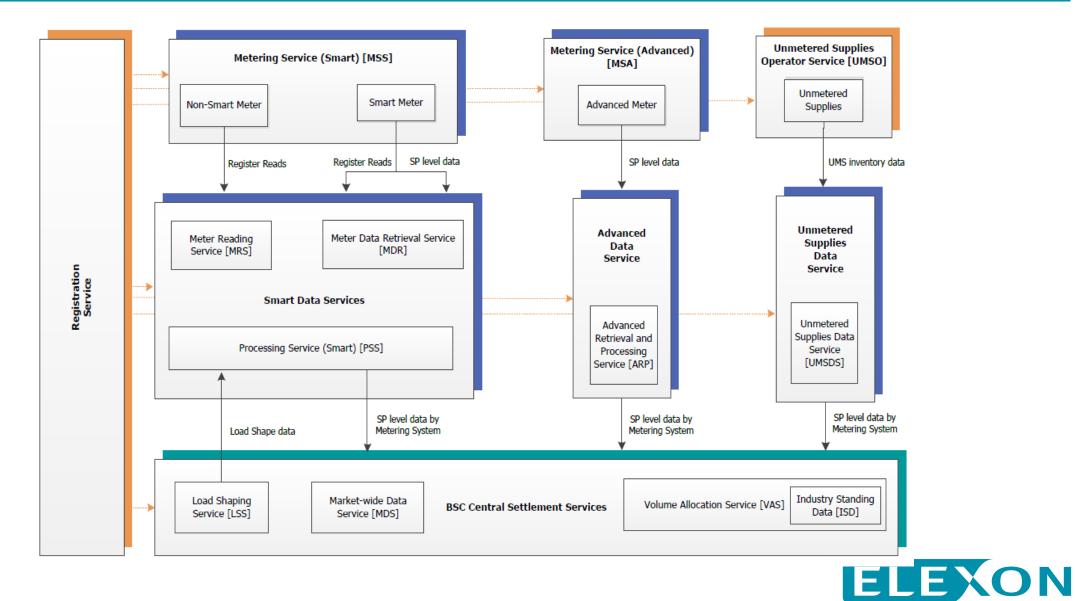


Consultation response summary

Preferred TOM Consultation



HHS TOM



17

Consultation on DWG preferred TOM

- Consultation Mid Feb. to 15 Mar. 2019
- We received 22 responses, 1 confidential
- Responses received from suppliers large and small, supplier agents, DCC, LCCC, DTS provider



Consultation summary

- DWG agrees that the <u>responses</u>:
 - -Positively affirm its market segment approach to the TOM design
 - -Validate that the TOM captures all essential Settlement data and
 - -Mirror the majority / minority DWG views on the preferred TOM
 - Confirm that, subject to respondents' views on their preferred TOM and based on current knowledge, the TOM is <u>not</u> a barrier to future market innovation
 - Highlight the importance of a managed transition to the reduced Settlement timetable that minimises Settlement risk, given current uncertainty over the smart rollout penetration, data quality under MHHS and future performance targets
 - -Affirm the DWG's view that a Trading Disputes process / window is still required
 - Confirm that, aside from a minor point of clarification, the DWG's proposed transition principles are appropriate
 - Raise a variety of other relevant points and suggestions for consideration when developing the transition approach



Consultation summary - DWG

- DWG agrees no fundamental changes required to the TOM
- DWG notes that some responses comment on areas that fall outside of its control and will be a matter for Ofgem's:
 - -policy decisions
 - -Request for Information
 - -Business Case under the wider SCR.
- DWG recognises the challenges for participants in identifying costs and benefits without knowledge of the target architecture
- DWG notes that Ofgem has tasked it with developing an architecture-neutral TOM.





Preferred TOM Transitional approach



Agreement of terminology (Recap)

- Common understanding of terminology:
- **Transition** the end to end process of getting from the current state to the Target End State for the TOM
- **Implementation** Code Changes, System Changes, Settlement timetable and Qualification
- **Migration** Moving Metering Systems from current market roles to TOM Services
- Adoption Moving Metering Systems appointed to existing roles to new TOM Service with same organisation



Quick wins

Services that can be adapted early following Code changes in 2020:

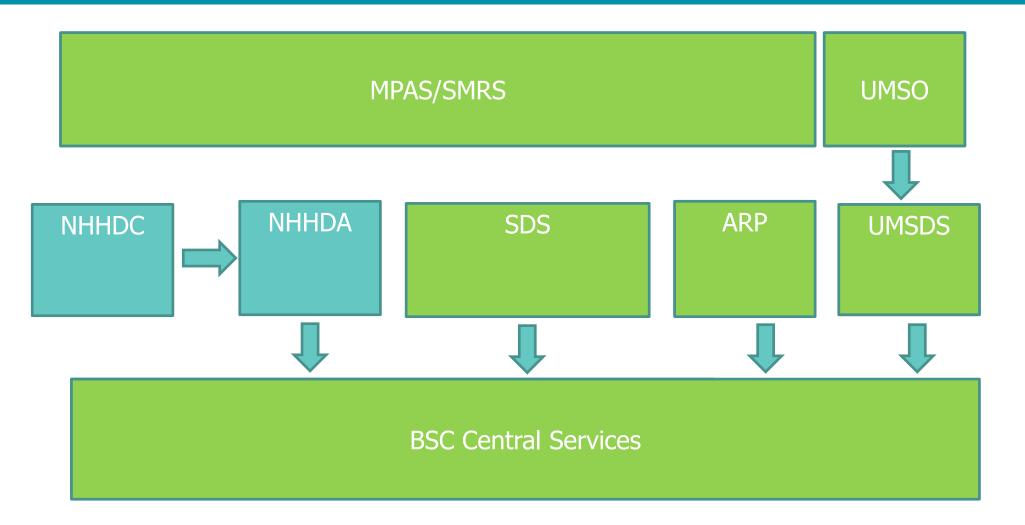
- Unmetered Segment
 - UMSO Role to UMSO Service Data cleanse/ ability to prepare Summary Inventories for smaller customers
 - Meter Administrator to UMSDS ability to cope with increased volume of data
- Advanced Segment
 - HHDC to ARP new requirements for estimation flagging introduced
 - -CT Metered Customers in Profile Classes 3 and 4 can be moved to ARP (via COMC)
 - N.B. whole current customers can choose to switch to SMETS Metering

Data from these Services can be passed to existing BSC central systems (SVAA) via the existing HH Data Aggregator role using current processes

When TOM is implemented SP Level data can be re-directed to BSC Central Services using any new interface developed top deliver the TOM



High level summary





Outputs from Transition Work streams

DAB



Transition Output

- Storyboards (to be developed)
- Key Milestone Spreadsheets
- Key Milestone Plans

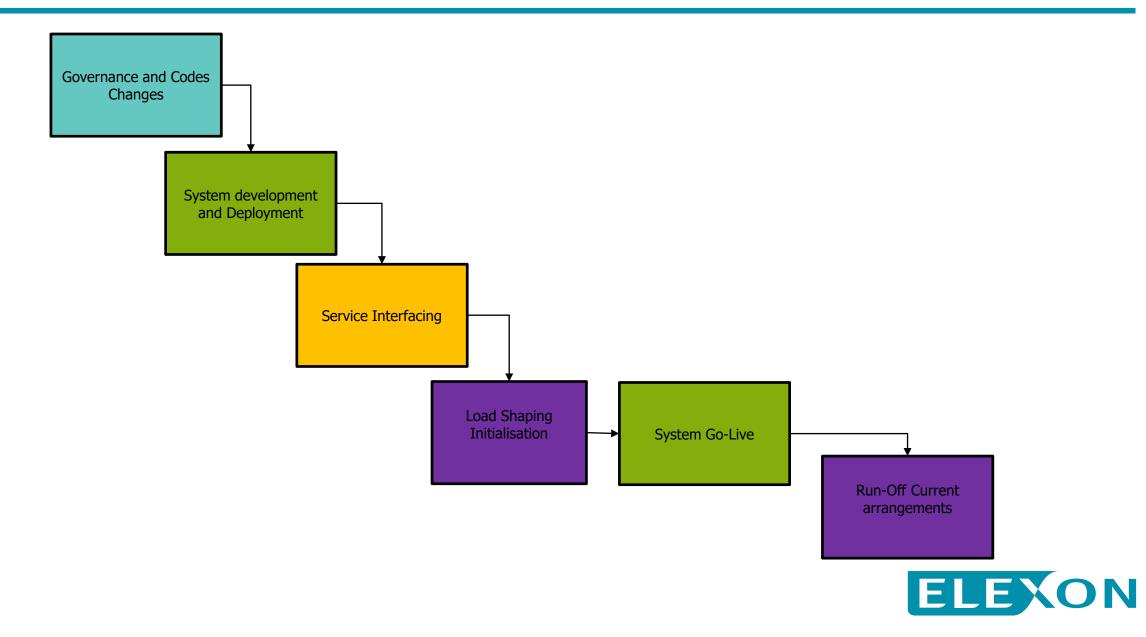
The following colour coding has been applied:

| Transition General | |
|------------------------------|--|
| System Developments | |
| Governance and Codes Changes | |
| Commercial | |
| Interfaces | |
| Migration | |

- Agreed the approaches
- Identified key milestone omissions
- Identified if dependencies are correct
- Agreed critical path



High level transition diagram



Smart and non-smart Segment – transition approach

Phase One: Governance/Develop/build systems

Phase Two: Accede to SEC/become DCC user

Phase Three: Qualify

Phase Four: Deploy. Interfaces operational

Phase Five: Go-live

Phase Six: Elective HH?



Advanced Segment – transition approach

Phase one – Governance, system and process changes

- Ofgem will direct changes to governance and code documentation using their Smart Meters Act powers.
- BRP reviews its contractual arrangements with customers and adapted their systems to bill using HH data provided by the ARP following initial data cleanse activity.
- HHDC and HHMOA are able to qualify as ARP and MSA respectively for all Advanced meters.

Phase two – Adoption of HH MPANs and migration of NHH MPANs

- BRP agrees contractual terms with the ARP and MSA reflecting new responsibilities under the TOM.
- A schedule of transition activity agreed between BRP, ARP and MSA and monitored by ELEXON.

Phase three – Interfacing with revised registration system

• ARP and MSA can interface with the revised Registration Service, including for 'appointments'.

Phase four – Transfer of data into to BSC Central System

- ARP re-directs disaggregated data to BSC Central systems instead of via an aggregator.
- The HH data for 'migrated' customers can be notified to BRP directly by the ARP.

Phase five – Removal of old HH Agent and NHH data and processes

Potential rationalisation of Measurement Classes C, E, F and G to align with the TOM segments.

Unmetered Segment – transition approach

Phase one – Governance, system and process changes

- Ofgem will direct/make changes to governance and code documentation using their Smart Meters Act powers.
- The UMSOs and BRPs review and cleanse their data, The UMSO & MA System changes, The MA will undertake qualification as an UMSDS.

Phase two – Adoption of HH MPANs and migration of NHH MPANs

- UMSO, SMRS & BRP will need to change registration of NHH UMS customers to HH.
- A schedule of transition activity agreed between BRP, UMSO and UMSDS and monitored by ELEXON.

Phase three – Interfacing with revised registration system

• SMRS interface with the new registration system for appointments.

Phase four – Transfer of data into to BSC Central System

- UMSDS, redirects data to BSC Central systems.
- The HH data for 'migrated' customers shall be notified to BRP directly by the UMSDS.

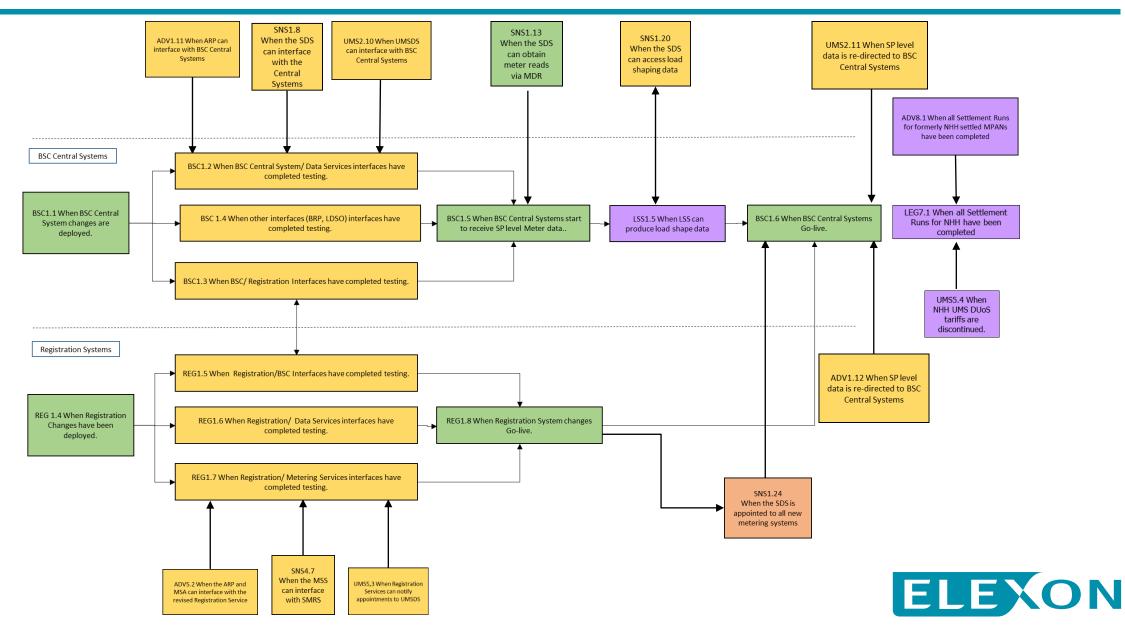
Phase five – Removal of HH Agent and NHH data and processes

- End dating of LLFC ids, dating of Measurement Class B (NHH Unmetered Supplies) in MDD.
- Removal of NHH UMS DUoS Tariffs, Removal of HHDC/DA role from UMS segment.





Integration: Critical path?



Public

MHHS/PAF interactions

Recommendations

DAB



PAB Paper 219/05

PAB 219 were provided a paper setting out answers to DWG's three questions:

- What high-level assurance framework/principles will be needed to support MHHS?
- What elements of the PAF are no longer required, need to change, or need to be introduced under the TOM?
- What DF Run cut-off and Disputes materiality threshold (or principles to determine the threshold) are appropriate for MHHS?



ELEXON's initial observations

- The PAF has just been reviewed under the PAF Review we now have a flexible, responsive PAF that can be deployed in response to any potential risk arising under any Settlement arrangements
- DWG had difficulties in producing analysis that could predict future performance and the extent of any Settlement Risks under a reduced Settlement timetable – ELEXON has faced similar difficulties
- Given this, ELEXON is finding it hard to propose any specific performance targets now and recommends assessing/setting these nearer the time when more data / analysis is available
- Then the PAB can identify risks, assess impact, determine its risk appetite and deploy Performance Assurance Techniques accordingly



PAB discussion

PAB strongly endorsed the approach set out in the paper:

- Recognised the difficulty in setting out 'line in the sand' timescales without data to support the rationale for those timescales
- Recognised that DF could be flexible with ratcheted materiality thresholds
- Recognised that serials would need to reflect new types of actuals and estimates set out in the TOM

ELEXON has considered the PAB view; the DWG has agreed recommendations for the transitional consultation



ELEXON logic and proposals for Dispute window

Ofgem DWG design principles say:

Full consideration is to be given to how reduced timings (including post reconciliation dispute runs if needed) of each settlement run and a reduced number of runs will create a settlement system which benefits all parties and maintains robust performance assurance.

ELEXON therefore believe that a dispute run timing of greater or equal to the current 28 Months will not be acceptable to Ofgem (as it would not meet the design principles).

We also believe that it makes sense for the cut-off to be a multiple of the RF window (recommended at 4 months). The DWG agreed that 12 months is too short this left the following options:

- 16 months
- 20 months
- 24 months

We proposed **20 months** from the Settlement Day



ELEXON logic and proposals for Materiality Thresholds

ELEXON took on PAB's view that the materiality could be ratcheted as time progresses

If a 20 month window were deemed appropriate then one approach could be:

| Months since Settlement date | Materiality Threshold (example figures only) |
|---------------------------------|---|
| 4 - 8 | £20K |
| 8 - 12 | £100K |
| 12 - 16 | £500K |
| 16 - 20 | £1M |

PAB could flex the thresholds as evidence is collected of actual Disputes under new model



PAF Performance Serials

We suggest that the DWG's Transitional Approach Consultation sets out any assumptions and principles that it believes the PAB should apply when setting Performance Serials for the transition/TOM. These could include the following:

Assumptions:

- The serials will not be same as currently for NHH or HH
- The serials will be configurable/adaptable and set by the PAB (no Modification Process)
- Do not assume that Actuals and Estimates as currently defined will be the basis of the serials

Principles:

- Serials will be set so as not to dis-incentivise movement to the TOM
- Parties will not be penalised for poor DCC performance
- Parties will not be penalised for customer choice (e.g. if they opt-out)
- Serials can be flexed by Market Segment/MC and/or Meter Type



Settlement Timetable: Transition Approach

DAB



Considerations for Settlement Timetable transition

View of TOM consultation respondents seems to favour 'back loading' the cutover to the new timetable *Arguments for:*

- Allows maximum time for the MDS, LSS and TOM data services to be ready
- Ensures the new Settlement Calendar will only impact BSC Central Systems
- Allows the PAF to monitor performance while new serials are developed
- Allows for a stepped reduction of key reconciliation runs (e.g. SF, RF and DF)
- Data Aggregators don't have to manage multiple submission calendars
 Arguments against:
- Extends NHH runoff later in absolute time (although this could be sped up)
- Requires HH Aggregators to be in place for longer before MDS takes over
- Delays realisation of benefits related to faster reconciliation



Transition Consultation Questions

DAB



Transition Consultation Questions (1)

| Question 1 | Do you agree with the DWG's proposed mapping for Metering System types to Market Segments? | |
|---|--|--|
| Please list any e | elements that should amended. | |
| Answer: Yes/No | (delete as appropriate) | |
| Please provide your reasons here | | |
| Question 2 | Do you believe it is feasible to use the elective HHS process to migrate large amounts of customers to HHS as an interim step in the transition process? | |
| Please identify what changes you believe would need to be implemented to use Elective HH as an interim step and/or any issues you have noted with the current elective process which are a barrier to using it as an interim step | | |
| Answer: Yes/No (| (delete as appropriate) | |
| Please provide your reasons here | | |
| Question 3 | Do you agree all the potential on impacts on the PAF have been identified? | |
| Please identify any omissions that you can identify. | | |
| Answer: Yes/No | (delete as appropriate) | |
| Please provide your reasons here | | |



Transition Consultation Questions (2)

Question 4 Do you agree with the phased approaches proposed for BSC and Registration Systems?

Please identify any issues and dependencies with the proposed approach.

Answer: Yes/No (delete as appropriate)

Please provide your reasons here

| Question 5 | Do you agree with the phased approaches proposed for the Smart and Non-smart Market Segment? | |
|---|---|--|
| Please identify any issues and dependencies with the proposed approach. | | |
| Answer: Yes/No (delete as appropriate) | | |
| Please provide your reasons here | | |

Question 6 Do you agree with the phased approaches proposed for the Advanced Market Segment

Please identify any issues and dependencies with the proposed approach.

Answer: Yes/No (delete as appropriate)

Please provide your reasons here



Transition Consultation Questions (3)

Question 7 Do you agree with the phased approaches proposed for the Unmetered Market Segmen

Please identify any issues and dependencies with the proposed approach.

Answer: Yes/No (delete as appropriate)

Please provide your reasons here

Question 8 Do you agree with the critical path captures all the key activities and dependencies?

Please identify any omissions, issues and dependencies with the proposed approach.

Answer: Yes/No (delete as appropriate)

Please provide your reasons here

| Question 9 | Do you agree DWG's proposed approach for transitioning to the revised Settlement Timetable? | |
|--|---|--|
| Please identify any issues with the proposed approach. | | |
| Answer: Yes/No (delete as appropriate) | | |
| Please provide your reasons here | | |



Transition Consultation Questions (4)

| Question 10 | Do you agree DWG's proposed Dispute Timetable and approach to materiality strikes an appropriate balance between shortening timescale and correcting material Settlement errors? | |
|--|--|--|
| Please identify any issues or risks with the proposed approach. | | |
| Answer: Yes/No (delete as appropriate) | | |
| Please provide your reasons here | | |
| Question 11 | Do you agree DWG's proposed transition approach aligns with the nine <u>High Level</u> Transition Principles set out for the transition approach? | |
| Please identify any areas of the approach that do not align with the principles. | | |
| Answer: Yes/No (delete as appropriate) | | |

Please provide your reasons here

Do you have any other comments?

Answer: Yes/No (delete as appropriate)

Please provide your reasons here



Next Steps

- Consultation out June 7th for 4 weeks
- DWG 19 to discuss the responses on 17 July
- DWG to finalise and agree final Stage 2 report for Ofgem





Energy Data Task Force – Key themes





Closing remarks





- Any other business
- Summary of actions
- Next DAB likely to be Autumn TBC



Appendix: Preferred TOM consultation responses detail



Question 1 : Do you agree with the DWG's recommended TOM as a basis for delivering Market-wide Half Hourly Settlement?

| Yes | No | Neutral/Other |
|-----|----|---------------|
| 14 | 7 | 1 |

- 7 preference for competitive data aggregation
- 3 high proportion of smart-SP is required
- 2 need a process for sending validated data to suppliers
- 1 AMR currently have a separate retrieval service
- 1 Smart meter data should go direct from DCC to Settlements



Question 2 : Do you agree that the DWG has identified the correct TOM, taking into account Ofgem's 'least-regrets' policy steers?

| Yes | No | Neutral/Other |
|-----|----|---------------|
| 15 | 6 | 1 |

- 5 SP-level data for settlement should be mandated
- 4 data aggregation should be competitive
- 1 Electralink indicated their system could be used to deliver some of the TOM



| Question 3 : Do you agree that the TOM captures all essential Settlement processes? | | |
|--|----|---------------|
| Yes | No | Neutral/Other |
| 18 | 2 | 2 |

- 4 should include non-settlement processes such a customer data for billing and for switching
- 1 should include behind-the-meter and flexibility services



Question 4 : Do you agree that the DWG has identified all the required data to be processed by the three Data Services?

| Yes | No | Neutral/Other |
|-----|----|---------------|
| 16 | 3 | 3 |

- 3 Should consider requirements for behind-the-meter
- 1 Smart Meter data should be pulled daily (NEW)
- 1 Need clarity on Switching Programme and Ofgem policy decisions (NEW)
- 1 Supplier needs to be notified of any mismatch between registration data and consumption



Question 5 : Do you agree that the TOM does not hinder new market entrants, technologies and innovations?

| Yes | No | Neutral/Other |
|-----|----|---------------|
| 15 | 5 | 2 |

- 3 Too early to say
- 3 Centralisation can hinder innovation
- 1 Removing Data Aggregators simplifies the market for new parties



Question 6 : Do you agree that the DWG's reduced Settlement Timetable is appropriate and achievable in the Target End State?

| Yes | No | Neutral/Other |
|-----|----|---------------|
| 10 | 6 | 6 |

- 5 Depends on proportion of smart meters and DCC capability
- 2 Insufficient information
- 2 SF should remain at 16WD to allow for manual reads
- 1 Some suppliers will have portfolios containing mainly dumb meters. (NEW)
- 1 Some large HH sites requires many months to resolve the issue. (NEW)
- 1 4 months to RF is appropriate but would require 97% smart meter penetration.



Question 7 : Do you agree with the DWG that participants should be able to correct Settlement Errors after the Final Reconciliation Run through Trading Disputes, and for at least 12 months after the Settlement Date?

| Yes | No | Neutral/Other |
|-----|----|---------------|
| 14 | 2 | 6 |

- 3 Too early to know appropriate disputes window
- 3 12 months
- 1 28 months (based on traditional AMR market not really changing)
- 1 2 years
- 1 14 months
- 1 Disputes require manual intervention and are more intensive than scheduled runs
- 1 £10k materiality threshold
- 1 Materiality threshold higher than current



Question 8 : Do you agree that there are overall cost benefits to Parties from the reduced Settlement timetable?

| Yes | No | Neutral/Other |
|-----|----|---------------|
| 5 | 6 | 11 |

- 10 Insufficient information at this stage
- 2 Reduced credit cover
- 2 More issues and faster resolution of issues will be required
- 1 Depends on the performance of each supplier's portfolio
- 1 Suppliers will face more difficulty in forecasting
- 1 II at 4WD, SF at 7WD, R1 at 33WD and RF at 4 months



Question 9 : Do you agree with the nine transition principles that the DWG intends to follow when developing its approach?

| Yes | No | Neutral/Other |
|-----|----|---------------|
| 20 | 0 | 2 |

Suggestions

- Include an interim step
- Prevent barriers to switching
- Prevent barriers to innovation
- Parties should pay the same costs for an MPAN before and after migration
- Transition should be supplier-driven
- Should be simple and cost effective
- Should provide incentives to parties
- Performance monitoring should include central systems

- Run-off should be cut when thresholds are met
- One process per meter or per MPAN?
- Regional differences in smart meter penetration
- Faster switching interactions
- SMETS1 adoption
- Phased approach
- Should extend SEC roles and elective-HH provisions early-on



Question 10 : Do you have any views on the areas of design detail for further consideration?

| Yes | No | Neutral/Other |
|-----|----|---------------|
| 13 | 7 | 2 |

Suggestions

- Interaction with switching/billing
- Need to balance reduction in settlement timescale
 with accuracy of data
- Tolerance around the transition see P272
- Engage MRA and MPRS providers
- Further work on MPRS as single source of the truth
- Details of data flows
- Wider industry engagement in detailed design

- Consider Siemens proposed TOM
- Rounding issues (input data in Wh and kWh)
- Application of GSP Group correction factors
- Supply licence condition should be the first choice solution to 'gaming'



| Question 11 : Do you have any further comments? | | | | |
|---|----|---------------|--|--|
| Yes | No | Neutral/Other | | |
| 7 | 13 | 2 | | |

Comments

- Currently insufficient information to assess costs/impacts
- Parties might be assuming that services need to be built from scratch (NEW)
- Access to SP-level data for settlement should be mandated
- Need to coordinate MHHS work with other industry changes eg. Faster switching, TCR, Smart roll-out.
- Ofgem policy decisions have considerable implications for the costs/benefits
- Should keep up to speed with behind-the-meter and possibly integrate this in to the TOM
- Consider DNO's role in resolve metering faults (NEW)

