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Electricity supply licence holders, electricity distribution licence holders, code panels, code administrators, industry bodies, supplier agents, consumers and their representatives, and other interested parties

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Date: 12 June 2019

Dear colleague,

Outline Business Case for Electricity Settlement Reform: Ofgem response to stakeholder feedback

On 17 August 2018, we published the Outline Business Case for Electricity Settlement Reform.[1] It presented the results of a draft economic assessment of the impact of market-wide settlement reform. It also explored the project's strategic interactions in further detail, and presented our further thinking on how to ensure key players can manage and deliver the reforms successfully. We noted that the draft assessment indicates substantial potential benefits, suggesting that our decision on the project should centre on when and how, rather than whether, market-wide settlement reform should be introduced.

The Outline Business Case is the second of three iterations of the Business Case, which we will use to support our final decision on market-wide settlement reform and set out the arrangements for implementation. We are developing the Business Case over time, leading up to our decision on market-wide settlement reform.

As part of the Outline Business Case, we asked stakeholders to provide feedback in two specific areas which were discussed in the document:

- settlement of export, and
- the commercial drivers on industry to deliver market-wide settlement reform.

We also welcomed comments or feedback more generally on any aspect of the Outline Business Case.

The attached appendix summarises the responses we received on the questions in the subject areas above. We have set out the key themes we identified from responses and how we intend to address the main comments, concerns and suggestions expressed by stakeholders.

[1] https://www.ofgem.gov.uk/system/files/docs/2018/08/marketwide_settlement_reform_outline_business_case.pdf

Next steps

The feedback we received about the Outline Business Case will help us with the design of the Request for Information (RfI) which will inform the Impact Assessment (IA), as well as with the Full Business Case.

We are re-planning the project timelines, and will advise stakeholders shortly of the new milestone dates. We will be publishing a draft of our Request for Information within the next month, inviting stakeholder feedback. We then expect to issue the formal Request for Information in the summer.

If you have any questions or comments on this letter please contact us using the team mailbox at Half-HourlySettlement@ofgem.gov.uk.

Yours sincerely,

Anna Stacey
Head of Settlement Reform

Appendix 1: Stakeholder feedback on the Outline Business Case

In August 2018, we sought stakeholder views on our Outline Business Case for Electricity Settlement Reform that presented a draft economic assessment and updated thinking on, amongst other things, the strategic interactions and commercial drivers for reform.

We received 13 responses in total, and we have published the non-confidential parts of these on our website, alongside this document. We are grateful to the range of stakeholders that provided responses, including suppliers, trade associations, distribution network operators, and code bodies.

The following section summarises the responses we received to our questions, and the more general comments on the Outline Business Case, identifying the key themes from responses. We explain how we propose to address the issues and suggestions made in the next steps section.

Question 1. Export settlement

As part of the Strategic Case set out in the Outline Business Case, we considered the case for export settlement. We said that it was within scope of the current Settlement Reform Significant Code Review (SCR)[2], we looked at the rationale for half-hourly export settlement, and presented the benefits case for market-wide half-hourly export settlement.

1.1 Do you agree with the scope of the costs and benefits of half-hourly export settlement that we have outlined? Are there any costs or benefits that we might have overlooked?

The majority of stakeholders were supportive of market-wide half-hourly export settlement in principle, and mostly agreed with the costs and benefits identified by Ofgem. However, most of them considered that the cost-benefit analysis of half-hourly export settlement in the Outline Business Case was too high-level and that a more detailed analysis was needed.

A number of respondents noted that less consideration has been given to half-hourly export settlement compared to half-hourly import settlement, and thought that, without further analysis and engagement, the case for half-hourly export settlement was uncertain, even if they supported the policy in principle. Some of them suggested that Ofgem should consider the case for half-hourly export settlement separately from half-hourly import settlement - as current arrangements and corresponding costs/benefits are very different - rather than merging both policies. In addition, some of them thought that we should consider implementing separate timelines for the implementation of half-hourly import and export settlement due to distinct and extra changes that would be required for export, such as the creation of export MPANs.

[2] https://www.ofgem.gov.uk/system/files/docs/2017/07/electricity_settlement_reform_significant_code_review_launch_statement.pdf

We also received a good number of suggestions around costs and benefits that should be included in the economic assessment. Some of the key costs and benefits identified by stakeholders in their responses to question 1.1 were:

Costs:

- The costs of upgrading suppliers' systems.
- The costs of registration of export sites, such as the creation and registration of the necessary MPANs.
- The costs associated with management of export MPANs, e.g. increased costs in data and procurement of data services.
- Potential increase in DCC costs.

Benefits:

- Increase in the accuracy of settlement and the efficiency of balancing actions of all impacted parties.
- Utilisation of the smart meter infrastructure.
- Better understanding of export data by generators and network operators, leading to better investment decisions.

Ofgem's response:

We note that there is general support for half-hourly export settlement in principle, and agree with the view that further economic assessment is needed. We think that this analysis, together with the potential implementation considerations, should be undertaken as part of the current Significant Code Review (SCR) and considered as part of the Target Operating Model (TOM) work, the Impact Assessment (IA), and Full Business Case for Electricity Settlement Reform. We acknowledge the responses from stakeholders that costs and benefits for import and export may need to be considered separately.

Regarding the additional costs and benefits of export settlement that have been identified by stakeholders, we will use these to help us design the Request for Information and the subsequent IA so we can provide a more accurate economic assessment for the Full Business Case.

In relation to the extra changes that would be required for export settlement and, in particular, the creation of Export MPANs, we note the implementation of Master Registration Agreement (MRA) Agreed Procedure (MAP) Change Proposal (CP) 0297[3], which introduces a new Agreed Procedure to govern the process whereby Suppliers can request that an Export MPAN is created, and which seeks to facilitate this process.

1.2 What are the impacts for your organisation of implementing market-wide half-hourly export settlement?

We also asked about the potential impacts on the different stakeholders' organisations. For simplification, when these impacts could fall into the costs or benefits category, we have included them in question 1.1.

The key **positive impacts** identified in question 1.2 were:

- Relatively low additional costs, over those of implementing market-wide settlement reform for import, for supplier agents.

[3] https://www.mrasco.com/changes/change-tracker/introduction-of-procedure-for-raising-export-mpans/

- Half-hourly export settlement should make the system more cost-reflective, incentivising more efficient behaviour from consumers.

The key **negative impacts** identified in question 1.2 were:

- Some respondents said that they would face the costs and administrative burden of a number of issues, such as creating and registering the necessary MPANs, upgrading their systems, transition processes, management of export data and forecasting.
- One DNO thought that the implementation of half-hourly export settlement potentially places additional costs and obligations on DNOs which were not included in the RIIO-ED1 settlement, for example, by increasing the volatility of charges and therefore increasing the difficulty that distribution networks face when setting tariffs to collect their allowed revenues.
- Forecasting issues (especially in the short term).

Alongside the direct impacts, stakeholders have also raised a number of issues to be considered in relation to implementation of export settlement. The key views expressed in relation to question 1.2 were:

- Customers who have different suppliers for import and export but a single meter. The respondent considered that, as it stands, the export supplier may not be aware if and when a smart meter is installed at the premises, and there is no industry process in place to allow it to obtain this view.
- Under the SEC, an import supplier would have responsibility for maintenance and emergency work. It is not clear how this could work alongside a separate export supplier, therefore, industry processes must be developed further. Security certificates and direction of alerts and alarms will all need to be reviewed.
- Impacts on other industry processes such as registration and forecasting, as well as other potential considerations such as theft, will need to be fully understood and mapped out in advance of metering and moving to half-hourly export settlement. Due to the small amount of export expected from such generators, we would need to ensure that the design of industry processes to support export are developed to facilitate this without undue cost on suppliers and customers.
- There should be no additional impact on the TOM or on Balancing and Settlement Code (BSC) central settlement systems of implementing the settlement of export.

Ofgem's response:

We note the impacts identified by different stakeholder organisations and the issues raised in responses to this question. We will use this feedback to help us develop the future RfI and refine our economic assessment.

Regarding the potential **impacts on DNOs**, we note that the total expenditure allowances within the price control should enable companies to adjust their expenditure in line with changing requirements. This can result in the actual expenditure being lower or higher than expected. To protect consumers and companies from bearing the full risk of these deviations, we apply a sharing factor to under/over spends so that no one party carries the full risk of an overspend, or enjoys the full benefit of an underspend. This sharing factor also acts as an incentive on companies to seek out cost efficiencies and reduce cost overruns.

In addition, we also provide separate mechanisms that provide additional allowances where there is a significant change in certain expenditure requirements, such as that relating to an increase in demand. Beyond these arrangements though, we would expect companies to manage risks within the price control period.

Regarding the issue around installations having **different import and export suppliers** and the lack of appropriate data flows, we note that, where an export meter is already installed (with an MPAN), the export supplier should be able to identify changes through established data flows. However, we are aware that there are a number of challenges associated with small-scale installations where export is not currently metered.[4] Typically, these installations are supported under the Feed-in-Tariff (FIT) scheme and, therefore, may have a FIT licensee rather than an "export supplier" and spill the energy directly onto the grid. There is currently work underway to set up the appropriate industry data flows so that licensees can be notified when a smart meter, which will measure both import and export flows, is installed at one of their FIT installations.

Regarding impacts on other industry processes, we note that not all of these are in scope of the SCR on market-wide HHS. We do not have evidence of any regulatory barriers to resolving these issues and continue to expect industry to establish suitable processes. We also note that other sources of export besides that from small-scale generators already exist and are expected to become more widespread in future – for example, from battery storage/electric vehicles – and these will also need to be considered (and may give rise to different challenges).

1.3 What are the impacts for consumers of implementing market-wide half-hourly export settlement?

When asked about impacts on consumers, most stakeholders agreed with Ofgem's view that we should expect a positive impact. In particular, the key impacts on consumers raised in question 1.3 were:

- Savings passed to consumers due to more efficient system operation and more cost-reflective charging arrangements (although it was noted that this is more likely to happen in the medium/long term than in the short term). For example, the increased accuracy of settlement should allow the removal of the risk premium applied by suppliers, resulting in lower prices.
- Raising the numbers of engaged consumers thanks to innovation and new business models, e.g. Peer-to-Peer (P2P) trading, electric vehicles (EVs), smart tariffs and time of use (ToU) tariffs, local energy schemes etc. The existence of separate import/export MPANs would give end consumers the option to use different suppliers so this would potentially enhance competition in the marketplace.

A general view among respondents was that, while this change would be generally positive for consumers, there would be "winners and losers" of settling energy, rather that deeming it under the FIT Scheme. One respondent argued that a move to market-wide settlement reform could disincentivise customers to choose to take up a smart meter if they think they would lose deemed payments.

Ofgem's response:

We note the benefits to consumers identified by stakeholders, such as more efficient system operation and innovation opportunities, resulting in lower prices for consumers. We will seek to refine our understanding through our future RfI.

Regarding the comments about consumers under the FIT Scheme losing deemed payments as a result of market-wide settlement of export, we note that, where an accredited FIT installation[5] has an export meter commissioned that is capable of

[4] Installations with total installed capacity of 30kW or less.
[5] For FIT installations with a total installed capacity of 30kW or less.

measuring the export from the installation, the exported electricity from that installation will no longer be able to be deemed, regardless of whether the meter is settled on a half-hourly basis or not, and regardless of whether market-wide settlement reform is in place. Therefore, the question of whether or not a participant of the FIT Scheme with a smart meter installed can receive deemed payments does not depend on the outcome of this SCR, and is not within its scope.

1.4 What are the impacts for small-scale generators of implementing market-wide half-hourly export settlement?

A code administrator thought that small-scale generators would benefit in the long term from a move to market-wide half-hourly export settlement given that current subsidies are time-limited and new small-scale generation customers are not likely to receive the same level of benefit under successor schemes.

One supplier argued that benefits would ultimately depend on the price signals sent to generators, which will be impacted by the future distribution charging arrangements. They also thought that there would be different benefits for different types of generators (e.g. intermittent versus dispatchable small generators).

One trade association said that while the impact on small-scale generators could be substantial, industry has not yet progressed to a point where these generators can fully benefit from a move to market-wide half-hourly settlement, and that Ofgem should consider the incentives of price signals as well as the role of market-wide settlement reform in ensuring these are passed through.

Some respondents thought market-wide half-hourly export settlement should expose small-scale generation to the temporal variations in wholesale and system costs, which may drive changes in generation patterns and adoption of technologies such as battery storage. They also agreed that market-wide half-hourly settlement should facilitate the creation of new commercial opportunities, for example, flexibility service provision. However, one supplier mentioned that while market-wide half-hourly settlement provides the opportunity for more sophisticated power purchase agreements (which may involve ToU pricing), in their experience, even larger generators who are currently half-hourly settled often opt for simple structures.

One supplier thought that there should not be any increase in metering costs (to either the customer or their suppliers), on the basis that domestic generators will be moving to smart meters. One code administrator thought that costs would not be significant compared to the future value of the export.

One DNO thought that it is important to ensure that the right charges/credits are applied to this group of customers, reducing the current cross-subsidy between customers within this group and all other customers.

Ofgem's response: We note the impacts and issues for small-scale generators raised in this question, such as expected positive impacts in the long term, and the connection between benefits and price signals. We will use this information to develop the future RfI and refine our economic assessment.

Regarding price signals and the future charging arrangements, we are currently taking forward two projects looking at these: the Network Access and Forward-looking Charging

SCR[6], and the Targeted Charging Review (TCR) SCR[7]. We further discuss the interaction between market-wide settlement reform and these projects in this document under "General comments on the Outline Business Case - Interaction with other Ofgem projects" below.

2. Questions regarding commercial drivers in the Commercial Case

As part of the Commercial Case, we set out further information about the factors that we have identified that suppliers and other industry players may consider around delivery of market-wide settlement reform.

We thought that the use of actual half-hourly consumption data for settlement would open up a number of opportunities for suppliers, e.g. to more accurately forecast their purchase requirements and to then offer consumers new products and services, such as smart time of use tariffs, based on actual usage information. We also identified a number of potential commercial drivers that may encourage suppliers and other market participants to deliver market-wide settlement reform in a timely, cost-effective way.

2.1 Have we identified the right commercial drivers?

Most respondents generally thought that we had identified the right commercial drivers in the Outline Business Case.

A few respondents raised a number of concerns regarding some of the commercial drivers we identified:

Push factors

We identified certain factors that may push market participants towards implementing robust, enduring reformed settlement arrangements where they may not have otherwise wished to do so. These may arise out of obligations on them or where there is a commercial advantage compared with the alternative, ie continuing to operate existing arrangements for longer.

We only received specific feedback regarding one push factor:

Placing an obligation on market participants to cooperate to deliver market-wide settlement reform

Some respondents said that they were generally supportive of an obligation to require market participants to cooperate to deliver market-wide half-hourly settlement provided it is applicable to, and equal for, all licensees. Others did not comment on this point.

Ofgem's response: We recently implemented changes to all licences, introducing a general Duty to Cooperate with the Authority or any person the Authority appoints to

[6] https://www.ofgem.gov.uk/publications-and-updates/electricity-network-access-and-forward-looking-charging-review-significant-code-review-launch-and-wider-decision
[7] https://www.ofgem.gov.uk/electricity/transmission-networks/charging/targeted-charging-review-significant-code-review

give full effect to the conclusions of a SCR, as defined in licence.[8] Whilst these modifications were introduced in facilitation of the Switching Programme, they may be used for any SCR, including market-wide settlement reform. If we decide that such cooperation is necessary, we will issue further programme specific guidance on what our requirements are, and of whom.

Should we consider that any additional obligations are needed that are not included in the current licence conditions, we would consult on these additional licence obligations using our standard procedures for making licence changes, including a statutory consultation[9].

Pull factors

The counterpoint to the 'push' factors is that these same factors also 'pull' market participants towards realising the benefits of market-wide half-hourly settlement early as potential opportunities open up to them.

There were responses to two of the pull factors mentioned in the Commercial Case.

Opportunities to innovate based on technological change. This, together with the wider commercial benefits, will make industry want to pursue market-wide settlement reform.

One supplier said that while they agree with us that technological advances, such as EVs, are likely to enable new routes to market for industry participants, there must be clear cost savings identified for customers in order for them to pursue it.

Another supplier questioned whether market-wide settlement reform would truly lead suppliers to innovate on the scale that we predict. They argued that there is already a degree of innovation in play in the industry through the route of elective half-hourly settlement, and those pursuing this would be no more likely to be incentivised if the arrangement was elective or on a market-wide basis.

One other supplier said that the wider commercial benefits of introducing market-wide settlement reform should not be considered as a commercial driver as they are stated in too broad and generic terms and, without specific definition, cannot be fully evaluated.

Ofgem's response: we think that there are significant opportunities that will arise in the future, through the deployment of innovative technologies like EVs and storage batteries, that will encourage or 'drive' suppliers and others to innovate in the types of products and services they offer to energy consumers. These offerings will be enabled by market-wide settlement reform and have the potential to deliver significant benefits to energy customers by helping them shift load away from the peak. We also think that, without market-wide settlement reform, it is unlikely that these opportunities for load shifting will be opened up in the same way or to the same extent (for example they may not be offered to the otherwise disengaged).

We have always said that we expect we will need to introduce half-hourly settlement on a market-wide basis to realise the full benefits of settlement reform. This is because, under market-wide settlement reform, suppliers would be exposed to the true cost of

[8] See our decision (December 2018) here: https://www.ofgem.gov.uk/system/files/docs/2018/12/decision_letter_-_gas_tran_elec_sup_elec_dis_and_gas_sup_nh.pdf

[9] There are also additional powers in the Smart Meter Act that would potentially allow a licence amendment which relates to half hourly settlement reform to take effect within the 56 day standstill period.

serving their customers, and therefore, they would have the incentive to help them consume electricity when it is more efficient to do so. We would expect these incentives to pull suppliers towards pursuing innovation which they would not necessarily do otherwise. This view was shared by the Competition and Markets Authority (CMA) in their 2016 Energy Market Investigation, where they found that "elective half-hourly settlement is unlikely to be an effective substitute for full, mandatory half-hourly settlement."[10]

We disagree that the wider commercial benefits of introducing market-wide settlement reform are undefined. The benefits of market-wide settlement reform were scoped and defined in the Draft Economic Case in the Outline Business Case. Even when we have been unable to quantify the benefits fully, we have outlined their scope and indicated their materiality. We are continuing to gather evidence, quantitative and qualitative, about the scope and range of commercial benefits that will be enabled by introducing market-wide settlement reform, which we will reflect in the Full Business Case.

Increasingly accurate and faster processing of settlement using half-hourly data. This would reduce the overall cost of settlement to market participants, through shorter timescales, with the benefits passed through to consumers.

One respondent said that while generally supportive of the benefits scoped in the Outline Business Case, they would also need a clear understanding of how the dispute process would work, and how the settlement performance targets would change alongside the reduced timescales.

One supplier did not agree with us that market-wide settlement reform would reduce the overall costs to serve a customer, identifying increased costs of billing and tariff changes, agents, metering and security in the future. They said that if there were benefits that some market participants could identify, the elective arrangements should be enough for them to take advantage.

One trade association thought that we should provide clearer information on customer savings in order to incentivise customer actions. For example, they said that we have not provided sufficient clarity as to the value of these cost savings that a supplier would be able to pass on to consumers, given external factors such as network charges or variances in wholesale costs.

One supplier mentioned that they expected the individual cost savings that could be passed onto customers to be relatively low (for example, they would expect a reduction in wholesale costs in the low £10's per year), which, they thought, alone would be unlikely to incentivise the required behaviour or investment in technology to shift load.

Ofgem's response: Details about how the dispute process would work, and how the settlement performance targets would change alongside the reduced timescales, will be looked at as part of the TOM work.

We will be asking for more information about the costs of moving to market-wide settlement reform through the Request for Information (RfI) which will inform the Impact Assessment (IA).

Regarding the price signals suppliers can pass through to their customers, final price signals will depend on a range of factors including network access and wholesale costs. Our revised economic assessment will consider any additional evidence on cost savings and behavioural impacts.

[10] CMA Energy Market Investigation (2016) Page 696: https://assets.publishing.service.gov.uk/media/5773de34e5274a0da3000113/final-report-energy-market-investigation.pdf

Potential disincentives to progress market-wide settlement reform

Limiting competition and keeping customers disengaged

One code administrator did not believe that existing market players would actively seek to keep customers disengaged as they would either face regulatory measures or will lose those customers to other more pro-active suppliers.

Ofgem's response: we would welcome greater engagement from market players with their consumers to offer them increased choice of products and services in the market, but we also still think this is a risk that will need to be evaluated further in the context of our Business Case.

Lessons from other change programmes

Settlement reform for Profile Classes 5-8 (P272) and elective HHS for Profile Classes 1-4. Some respondents considered that learnings from elective half-hourly settlement and P272 have not yet been addressed, and thought that we must undertake a full lessons learned exercise, including reflection on both these changes, before deciding on market-wide settlement reform.

Ofgem's response: we have reflected upon lessons learned from earlier change initiatives, for example P272 is discussed in the Outline Business Case at paragraphs 4.24 and 4.25. However, we agree that it is important that our current SCR should make full use of learnings from previous experiences, and we continue to welcome any further views from stakeholders in this area.

2.2 Are there others that we have not identified and should consider?

Some respondents noted a number of further drivers that were not identified by us in the Outline Business Case commercial drivers:

Further **positive** commercial drivers that were suggested include:

- Cost savings associated with not having to support the current complex non-half hourly processes;
- Not relying on the existing arrangements in the future as they would be significantly less accurate, because the current profiling processes cannot model the more dynamic nature of demand (import) and generation (export) expected on the networks; and
- An increase in competition for data processing.

Further **negative** commercial drivers respondents identified include:

- The significant volume of current changes in the market and the dependency on the smart meter roll out could delay implementation and the realisation of the benefits of market-wide settlement reform unless there is a coordinated approach to transition;
- System development costs may also be significant for the larger market participants, e.g. potential increases in imbalance and forecasting costs dependent on the quality of available data;
- Short term costs vs long term benefits. Some respondents considered that the cost to implement the programme is over a much shorter period than the assumed realisation of any benefits - the benefits for the programme run to 2045 in the

business case – which they think would be difficult to justify given the uncertainty involved;
- The expected benefits will be affected by the length of time to fully transition as, until such time, both systems (Half-Hourly Settlement (HHS) and Non-Half-Hourly Settlement (NHHS)) will need to be maintained; and
- We have assumed that suppliers will change billing and tariff systems despite those changes not being mandated.

One respondent noted that we should consider wider industry impacts such as for the System Operator and the Transmission Operator.

Another supplier thought that it would be useful to commission a study by Elexon on the percentage which might define the "critical mass" of customers being half-hourly settled.

Ofgem's response: We will consider the suggested commercial drivers.

Regarding the issue of short-term costs vs long-term benefits, we note that it is usual in government appraisals, like commercial investments, to consider the timing of cost and benefits and their certainty. In line with the HM Treasury guidance (the Green Book[11]), both aspects are treated separately. Discounting has been applied (at 3.5%) so immediate costs have greater value than future benefits. The uncertainty about the benefits is reflected in the use of a high and low estimate of benefits.

The Design Working Group (DWG), chaired by Elexon, is tasked with setting out an approach for transition and this will include a critical path and key deliverables which includes dependencies on the required number of customers being half-hourly settled at each stage.

2.3 How can we look to either capitalise on the positive impacts of these drivers or mitigate any negative impacts?

We have summarised the key suggestions from the responses, below:

Faster processing of settlement using half-hourly data
When the industry moves to reduced timescales this must be carefully considered and independent of the migration to market-wide settlement reform. Industry performance, status of the smart meter rollout, and a review of general data quality should all be considered when deciding to reduce settlement timescales.

To get the **benefits from forecasting** and allow future proofing, we will need a greater level of flexibility to split forecast data to more granular groups than just Grid Supply Point (GSP) group level data.

New market entrants

The influx into the market of new entrants needs to be managed carefully to mitigate any issues arising for existing market participants (as new entrants might lack experience or expertise).

Implementation timing

Some respondents thought that any implementation dates, including any transitional period, must be well considered and have clear, realistic deliverables: it should take into

[11] See 'The Green Book: Central Government Guidance on Appraisal and Evaluation': https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/685903/The_Green_Book.pdf

consideration and not underestimate technical development, include adequate testing time for central systems / participant systems, and identify critical areas where collaboration is essential. Final implementation dates should be flexible enough to take into account unforeseen circumstances.

Another respondent noted that the volume of data being settled will significantly increase through elective half-hourly settlement and market-wide settlement reform. Their view was that consideration is needed about the deadlines for implementation to ensure suitable safeguards are in place to allow a controlled increase in half-hourly settled supplies.

Implementation costs

Regarding the impact of other ongoing market changes, some respondents believed that multiple change programmes can increase costs, particularly where the various changes overlap within a supplier or agent's systems.

To reduce implementation costs, they suggested the following steps:

- Detailed upfront specifications, avoiding uncertainly in design.
- Allow dependency management between the change programmes to reduce development rework.
- Carefully consider scheduling of build and test elements of the various change programmes.
- Assessing the costs and benefits of different implementation timelines, and analysing all elements of the supply chain.

Governance

One supplier thought that programme governance and planning is critical, and that parties should be given adequate time to review the likely complex specification documentation that will be required to support implementation. They said that scope should be clear and not deviate to deliver additional perceived gains and that independent project management should be considered.

Engagement with industry and consumers

A number of respondents noted engagement and coordination from all areas of industry as a key element to guarantee the success of the SCR.

For example, some stakeholders thought that there was a need for an industry coordinated approach to transition to avoid delay in implementation of market-wide settlement reform, but also that the transition should not give an advantage to one subset of customers over others. One supplier thought that the best approach to achieve industry co-ordination would be by mandated change through the SCR with Elexon taking a key role. Other suppliers thought that open and timely communication with industry (for example through webinars) would support engagement and consistency of implementation, ensuring negative impacts can be mitigated where possible. Similarly, one respondent said that setting out the likely resources required from the different industry participants as early as possible would help.

Respondents also stressed the importance of good communication with consumers. For example, they felt that there is a role in making it transparent for consumers that there are benefits and costs associated with this change, and that we should recognise that good communication with consumers will need to play a part in promoting consumer buy-in and engagement.

One supplier said that we should seek to develop a fall-back position for consumers who actively show no interest in half-hourly settlement and, for example, refuse access for a suitable smart meter to be installed.

Ofgem's response: we thank stakeholders for their feedback, and we will consider it as we continue to develop the Business Case. The DWG is tasked with setting out an approach for transition and this will include a critical path and key deliverables. The DWG will put their approach out for industry consultation to ensure it is appropriate and realistic.

Regarding the question of **new market entrants,** we are reviewing our approach to licensing and regulating suppliers to raise standards around financial resilience and customer service, and have published final proposals on new supply licence application criteria[12].

General comments on the Outline Business Case

In addition to their responses to the specific questions in the Outline Business Case, many respondents also provided comments about the broader market-wide settlement reform SCR or the Outline Business Case that did not fall under any of the sections above. We have summarised their views and comments in this section.

The Business Case for market-wide settlement reform

Draft Economic Assessment. In general, stakeholders thought that more analysis for both the costs and benefits was needed (including refining the assumptions behind the analysis), but acknowledged that this should be done in the next iteration of the Business Case after the final TOM has been defined and the RfI has been issued. Nonetheless, some respondents raised specific concerns and comments about the economic analysis:

One supplier said that if the assumption about load shifting used in the model in the draft economic case proved to be incorrect, this may reduce the benefits case. In addition, they thought the potential load shifting cited is unrealistic and does not consider the proportion of time constraint on non-discretionary load in the domestic space. Furthermore, they thought that some of the simplifications of the model (mainly: omission of distribution network costs savings and EV demand) may also change the benefits case. Another supplier said that these assumptions should be refined once the settlement design options in the TOM are confirmed.

As noted above, some respondents thought that modelling the benefits over a 20-year period was disproportionate, especially compared to the short term costs of the project, and given that some of the technological solutions needed might be obsolete before the end of the benefits period. Some suppliers also said that they would like to see the results of the model presented at a more granular level. We refer to our response to question 2.2 above.

One supplier said that the differentiation between direct benefits and enabled benefits in the Business Case should be more explicit.

[12] Our Supplier Licensing Review is also considering new ongoing requirements for all suppliers, and reviewing the protections and processes for market exit.
https://www.ofgem.gov.uk/publications-and-updates/supplier-licensing-review-final-proposals-entry-requirements

Another supplier noted that **differences between prepayment and credit customers** have not been acknowledged despite the settlement reform impacting both types of customers. They thought we should assess any special impacts on prepayment customers, in order to deliver a full benefits case for market-wide settlement reform.

One respondent noted that the **benefits case is dependent on incentives on suppliers and customers.** This means the benefits enabled by the programme for the supplier and the customer have to be real and compelling.

In addition, some respondents suggested that if the benefits included in the Business Case require expenditure by market participants (e.g., updating supplier systems to offer ToU tariffs), then these costs should be included as well. One trade association noted that these areas should be included in the RfI.

Other costs to be considered:

- Potential changes to the DCC systems to support the programme
- High levels of security will be needed for settlement systems. Security costs needs to be factored in to the business case

Double counting of benefits already included in other BEIS/Ofgem business cases should be avoided, and more clarity should be provided to show this.

Interaction with other Ofgem projects. One DNO thought that the Targeted Charging Review (TCR) should carefully consider the potential implications for market-wide settlement reform, however they noted that they do not expect the DNO element to be the dominant driver of customer behaviour, as it is small in comparison to other elements (generation costs etc.). Some smaller suppliers have raised that market-wide settlement reform overlaps with other major projects so that resources were likely to be stretched.

Ofgem's response: We agree that more analysis regarding the **costs and benefits** of market-wide settlement reform is needed; we are looking to do this through an RfI and refinement of the cost and benefit estimates. In addition, we will consider the suggested costs and benefits raised by stakeholders when designing the RfI.

Model limitations:

- Assumptions around load shifting: we acknowledge the difficulty of accurately estimating levels of load shifting in the market over a period of 20 years. This is why we used a wide range in the form of a low load-shifting scenario and a high load-shifting scenario. We think that the final level of load shifting will fall somewhere in between the two scenarios. We will look to refine our estimates.

- Omission of distribution network cost savings and of EV demand. We note that the omission of these elements from the Dynamic Dispatch Model has the effect of underestimating the benefits from load shifting and, therefore, the benefits case for market-wide settlement reform. In addition, the EV demand was not included in the base case to avoid double counting with other projects looking at EV demand; however, we included a sensitivity analysis around this in the Outline Business Case.

We agree with the view that at least part of the benefits case is dependent on **incentives on suppliers and customers**, and we do think that these are real and compelling.

We are aware of the risk of **double counting of benefits**. For this reason, we are engaged with BEIS and other teams within Ofgem to minimise it by taking the appropriate analytical approach.

Regarding the **interaction with other projects** within Ofgem, in particular with the TCR, we have always said that we do not want to base our benefits case on inefficient price signals - such as the current price signals sent through residual charges. The TCR is currently considering ways to recover residual charges in ways that reduce harmful distortions to the signals sent through forward-looking, or cost-reflective charges. TCR and market-wide settlement reform together will help ensure that the price signals sent to consumers are efficient and beneficial for the whole system.

We note, however, the interaction between market-wide settlement reform and the Network Access and Forward-looking Charging project. This project is likely to capitalise on the capabilities of smart metering and the resulting more granular consumption data to deliver more cost-reflective market arrangements, and a more efficient outcome for the energy system and consumers. We expect any improved signals produced from the future arrangements for network access and forward-looking charges to support the realisation of benefits from market-wide settlement reform.

Next steps

We will continue to develop the Business Case for market-wide settlement reform.

The Outline Business Case is the second iteration of our Business Case. The next and final iteration, the Full Business Case, will include an economic assessment of specific options for market-wide settlement reform. It will also use the Commercial, Financial and Management Cases to set out the plan for implementation and the governance arrangements beyond the final decision.

The Full Business Case will support our decision on market-wide settlement reform, alongside the final TOM. Before we make our decision, we intend to collect further information through a Request for Information (RfI) and consult on a draft version of the economic assessment (in the form of an Impact Assessment (IA)).

Feedback from stakeholders

The feedback received for the Outline Business Case will help us design the RfI, the subsequent IA, and the final Full Business Case. We will also carefully consider all suggestions and comments regarding the commercial drivers, implementation, project governance and stakeholder and consumer engagement.

We will continue to seek input from affected stakeholders throughout the project through the various channels established including the TOM, DWG, DAB, regular conference calls and bilateral meetings. If you would like to feed into this process and are not currently actively engaged with the project, please contact the team at half-hourlysettlement@ofgem.gov.uk.