

S&C Electric Company – response to RIIO-ED2 Sector Specific Methodology Consultation

Introduction

Thank you for the opportunity to provide feedback on Ofgem’s RIIO-ED2 Sector Specific Methodology Consultation. In this response, we have largely focused on the questions Ofgem has posed with respect to ‘maintaining a reliable network’. In addition, we provide some observations on the areas in scope of the proposed Environmental Action Plan.

The key points we raise are:

- **Retaining the Interruptions and Incentives Scheme (IIS)** - We support retaining the IIS which has delivered significant reliability benefits to GB consumers over a number of price controls since 2002. Its continuation is critical to ensure a continued focus on network reliability at a time when consumer reliance on those networks and the value of reliability is growing.
- **Updating the Value of Lost Load (VoLL)** - We agree that it is appropriate to update the VoLL for RIIO-ED2. We are seeing growing customer expectations such as increased value being placed on reliability and a preference for low carbon energy, together with rapid changes to the energy system since the introduction of the RIIO framework., For example there has been high penetration of distribution generation (DG).
- **Retaining RIIO-ED1 revenue cap** – Capping the maximum revenue DNOs can earn under the IIS provides an important protection for consumers. At the same time, the incentive rates need to be sufficiently strong to continue to drive DNOs to meet or exceed their targets. It is the combination of how the two elements are set that is key to the success of the IIS arrangements.
- **Introducing short-interruptions incentives** – S&C welcomes Ofgem’s recognition of the growing impact of short interruptions. With increased levels of electrification, the roll-out of EVs and changing usage patterns, the reliance on the electricity networks and the consequences of short interruptions will only increase. Other countries have recognised this and taken measures which have successfully driven down short interruptions. With respect to the specific measures proposed, we note the following:
 - *Increased Monitoring* – Any incentive arrangements must be built on good quality data to avoid miscalibration of incentive rates. We therefore consider Ofgem’s proposed approach of increased monitoring to be a pragmatic first step. The key will be collecting the right data on which to build a robust incentive.
 - *Minimum Standard* – In the absence of a financial incentive, it is important to send a strong signal regarding the need to focus on minimising short-interruption. A minimum standard would be a good way to approach this. We provide some information from other jurisdictions which may guide the approach to setting these.

- *Financial incentives from RIIO-ED3* - We consider it is right to explore the scope for a financial incentive in the future. As noted, we consider that the importance of tackling short interruptions is clear today but will only become greater as the energy transition picks up pace. Financial incentives are proven to drive behaviour with a view to delivering the reliability performance standards which customers expect.
- **Environmental Action Plan (EAP) and the Circular Economy** – The proposed content of the EAP is appropriately broad ranging. We particularly welcome: (1) the continued commitment to reduce Sulphur Hexafluoride (SF6) emissions; and (2) the recognition of the need to embed Circular Economy principles which we recognise as part of efficient asset management.

In the remainder of this response we elaborate on the points raised above. We have addressed our comments to the specific questions raised by Ofgem in its consultation.

Consultation Questions

OUTQ23. Do you agree with our proposed approach to retain the RIIO-ED1 methodology for setting unplanned interruptions targets?

Yes. The IIS has been highly successful. It has driven significant improvements in reliability for GB energy consumers. Part of its success has been the consistency of the mechanism between price control periods. Enhancements have been made over time but the bare bones have remained the same. This has enabled the DNOs to build on their successes in driving greater longer-term reliability level. Therefore, retaining it in broadly the same form would be appropriate.

The bigger challenge for the arrangements is the recognition that some dramatic changes are underway in the energy sector which will continue to evolve quickly. The requirements of demand customers have changed and will continue to change with a move to an increasingly digitalised economy. Distributed generation also relies on the underlying reliability of the distribution networks. This has increased the importance of short interruptions. This is the area which requires the greatest focus and we are glad to see that Ofgem has recognised this in its consultation and is putting forward proposals to address these issues. We set out our views on those proposals under the relevant questions below.

OUTQ24. Do you have views on the alternative approaches to setting unplanned interruptions targets set out? Are there any other approaches that we have not considered?

We share Ofgem's view that there is not a clear case for a major change to the existing approach to setting targets. However, we would note one important weakness of the current approach to setting Customer Minutes Lost (CML) targets which could be addressed. The first pass CML targets are calculated using the product of the Customer Interruptions (CI) reference values and benchmarks for CML/CI (also known as the Customer Average Interruption Duration Index (CAIDI)). Investment in technologies such as distribution automation can drive significant improvements in both CI and CML, therefore, improving the reliability experienced by customers. However, if CI falls more rapidly than CML, CML/CI will increase, giving the false impression of worsening performance. Benchmarking CML directly at the different voltages may give a more robust outcome than using the combination of CI and CML/CI. As noted above, an important overall change to complement this regime is the consideration of short interruptions.

OUTQ25. What are your views on revisiting unplanned interruptions targets within the price control period?

While they are by no means mutually exclusive, there is a balance to be struck between having representative targets at any given point in time and having regulatory certainty. The importance of regulatory certainty, for all parties, should not be understated and given the RIIO-ED2 period is being reduced to 5 years then there is a reduced case for needing to review targets within period. Updating the targets during the period would also reduce the effective incentive rates as performance in a given year would influence the resetting of targets.

One potential approach would be to set caps and collars around the targets which could trigger a review if the level is breached on one or more consecutive years. However, even if such an approach was considered, these should be set at such a level that this is applied only in 'exceptional cases' during the review period.

OUTQ26. Do you agree with our proposed position not to introduce further convergence of DNOs' targets over time?

We agree that it is not appropriate to actively target further convergence. Ofgem is right to recognise that there are significant differences between DNO regions in terms of network characteristics, customer densities etc. Deciding on a point of convergence would be likely to be arbitrary and could mean reducing standards for some DNOs and/or unnecessarily penalising others.

Further, it is not necessarily a reflection of what all consumers are willing to pay. It is likely that expectations vary across the country. Further, it is likely that the way the energy transition develops is not homogeneous and also gives rises to different needs and expectations.

On this basis, we support setting targets based on the data for each DNO area as an approach which is more likely to result in an efficient outcome for the consumers in those areas.

OUTQ29. What are your views on how VoLL should be updated for RIIOED2?/ OUTQ30. What are your views on the different methodologies for updating VoLL?

It is important that VoLL is updated for RIIO-ED2 to ensure it is more reflect of the current value that customers place on security of supply. As Ofgem noted, the last update was based on research carried out in 2008. The energy system and the way customers use the energy system has changed significantly over this period. Therefore, the expectation would be that the value customers place on reliability would also have changed. Failure to update the value means the incentive rates would not be reflective of customers' view and would likely understate the value.

In terms of the required changes, at a bare minimum the data should be updated for inflation and also should be updated to recognise the ratio of domestic: SME customers. In addition, effort should be made to be as reflective as possible of recent information. While we recognise that ENWL's work does not include data, which allows the same level of granularity in results for Scotland, its analysis represents the most up to date snapshot of views in GB. On this basis, we would argue that it should be considered as part of any process to determine the updated VoLL. However, other approaches also have their merits. Recognising that this is not an exact science, it may be appropriate to consider a weighted

average of a range of data sources with a view to getting a more representative view of the trend. This would at least mean that the incentive strength would reflect the direction of travel in customers' views.

It is also important to avoid a potential unintended consequence of the approach for converting VoLL into IIS incentive rates based on the methodology set out in Appendix 6 of the SSMC Annex 1. The figures for net energy demand and average consumption per customer are reduced by the amount of distributed generation (DG). It is important that the amount of demand offset by DG is added back in, otherwise the incentive rates will be artificially lowered and not reflective of the full customer value of reliability. As discussed elsewhere in our response, the growing presence of DERs is increasing the value of reliability, not lowering it.

The only other point to note is that there is some merit in recognising that VoLL will vary between and even within DNO areas. It will vary depending on location e.g. where a customer is in an urban or rural location and it will also vary by type of customer i.e. residential or commercial/ industrial. While undoubtedly recognising these differences introduces an additional level of detail, it does mean that arrangements can be more tailored to reflect the needs of specific customers. The Service Target Performance Incentive Scheme (STPIS) in Australia already recognises these differences and therefore proves that they can be built into a successful regulatory framework. Even if Ofgem considers that this is a step too far for RIIO-ED2, we would recommend it is kept under review as the energy transition will not develop in a homogeneous way and thus could see very different values being placed on reliability in different locations.

OUTQ31. Do you have a view on retaining alignment with VoLL figures used in other RIIO price controls and/or parts of the energy sector?

As noted, the value attached to reliability can vary significantly over time and between different stakeholders. The aim in setting VoLL should be to be as reflective as possible of the most recent data. On that basis, ensuring the values used in RIIO-ED2 are reflective of the expectations of those using the distribution networks is more important than seeking alignment for the sake of alignment.

OUTQ32. Do you agree with our proposed approach to retain the RIIO-ED1 revenue cap for the IIS at 250 RoRE basis points?

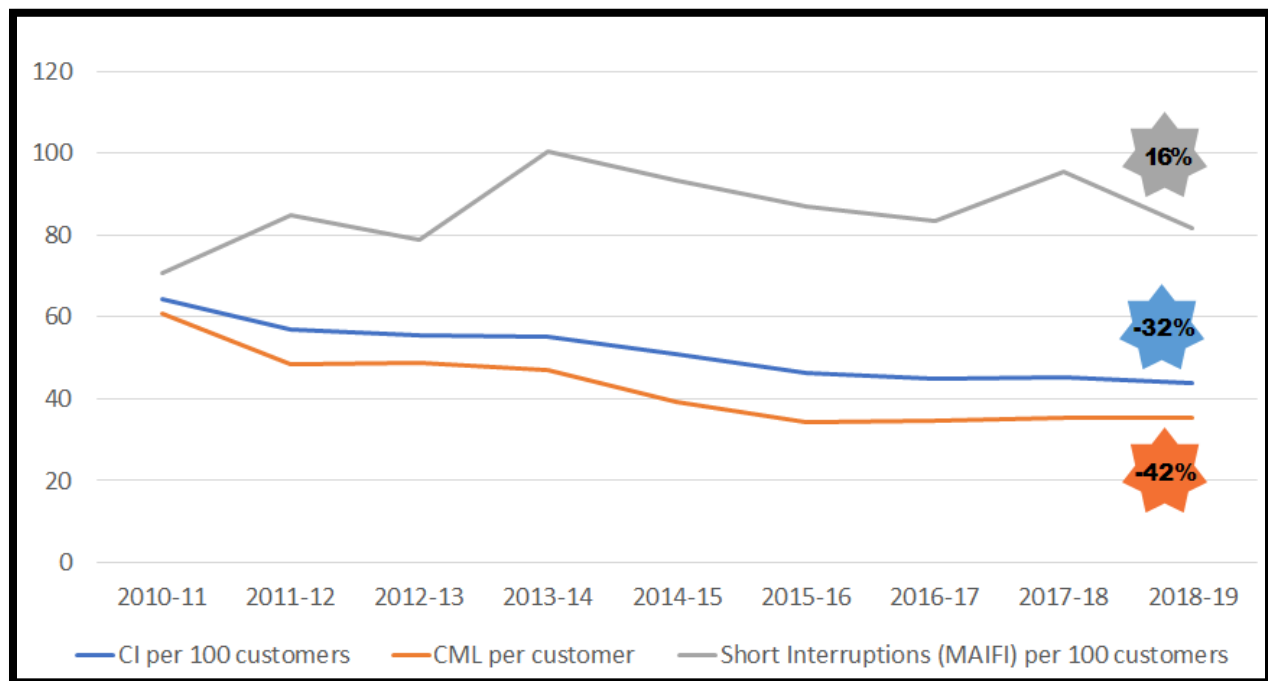
The key is that incentives are set in such a way as to drive the right behaviours from DNOs and that they are rewarded in a proportionate way where they deliver reliability improvements. We welcome the proposal to keep the RIIO-ED1 revenue cap so long as the incentives are calculated to reflect the value that consumers attach to reliability.

OUTQ33. Do you agree with our proposal not to introduce an incentive on short interruptions in RIIO-ED2? If not, how should such an incentive be structured and developed?

For some time, S&C Electric Company has highlighted the importance of network companies tackling short interruptions. As a global organisation, our views on this issue have been driven by three key factors:

- (1) Energy systems are changing and the levels of network reliability that have been suitable up to this point, will not meet the needs of the future. Changes in technology are driving changes in customer expectations as they place more reliance on the grid and the pace is accelerating.

- (2) In many respects Ofgem, and in particularly the RIIO framework, has led the way in developing regulation to meet the changing needs but, in the case of short/momentary interruptions, the data is moving in the wrong direction. While, as noted above, there have been significant improvement in longer duration interruptions (measured by CMLs) and the average number of interruptions (measured by CIs), reported short interruptions have increased. This is demonstrated by the following graph which shows that while CIs and CMLs have fallen by 32% and 42% respectively since 2010, short interruptions (measured by MAIFI) have risen by 16% over the same period.



In reality, the increase in short interruptions may be significantly larger as there are questions over the robustness of the short interruptions data, as common recording and reporting practices haven't developed in the same way as for CIs and CMLs.

- (3) In several jurisdictions across the globe, the negative impact of short interruptions has been recognised for some time, leading to the introduction of such measures as financial incentives and performance standards. These reactions have resulted in reductions in short power interruptions of 19% in Victoria (Australia), 27% in Sweden, and 40% in Italy. Ofgem can and should learn from their experience.

Way forward

On this basis, we consider it is important that measures are taken to tackle short interruptions. There are metrics used elsewhere such as the Florida Power and Light Customers Experiencing Multiple Momentaries (CEMM) measure, which is similar to the minimum standard on multiple short interruptions, being proposed by Ofgem in the SSMC. Their measure captures the number of customers

experiencing x or more short interruptions (momentaries) in a single year (CEMM-x). They use a number of different thresholds as part of this such as CEMM-3, CEMM-5, and CEMM-8. A minimum standard such as no more than 6 or 8 short interruptions in a year could be a reasonable starting point in Britain. We fully recognise that sufficient data must be available on which to develop financial incentives on short interruptions. On that basis, we both recognise and are supportive of Ofgem proposed approach of putting in place increased data monitoring with a view to putting financial incentives in place in the future. This is a pragmatic approach and one likely to secure the most benefit in the long-term with a properly targeted incentive mechanism.

In the meantime, we consider it is important to move quickly to collect the necessary data including during the remaining years of RIIO-ED1. Based on international experiences, we would be happy to support Ofgem in developing its thinking in this area.

OUTQ34. What are your views on a minimum standard for short interruptions for RIIO-ED2?

In the absence of specific incentives to drive behaviour to reduce short interruptions, it is appropriate to have measures in place which send a strong signal about what constitutes an appropriate standard. On this basis, we are strongly supportive of setting a minimum standard. As noted above, a minimum standard such as no more than 6 or 8 short interruptions in a year could be a reasonable starting point.

We are also strongly supportive of putting this in place as early as possible and see significant merit for GB consumers if it were to be applied for the whole of the RIIO-ED2 period.

OUTQ35. What information should we be capturing in RIIO-ED1 and RIIO-ED2 to better understand short interruptions and how DNOs are performing?

As noted above, there are a range of types of data that can be collected and again it is possible to look at international examples to help inform the appropriate approach for Great Britain.

The IEEE Standard 1366-2012 contains another useful reliability metric – Customers Experiencing Multiple Sustained Interruptions and Momentary (Short) Interruptions. This metric covers the number of customers that experience more than a certain number of interruptions a year including both short and longer duration interruptions. Therefore, it gives a more rounded view of performance. As the distinction between shorter and longer duration interruptions loses importance over time, because all outages count to customers, this may become a key metric.

OUTQ42. Do you agree with our proposal to retain some form of mechanism for WSC in RIIO-ED2?/
OUTQ43. What are your views on the options presented for WSC? Are there other options that we should consider?

We consider it is important to retain a mechanism for worst served customers (WSC) in RIIO-ED2. By doing so, a strong signal is sent regarding the importance of improving the experience of those seeing an usually high number of interruptions.

Having said this, we consider that the current definition is too narrow. At a minimum, this should be extended to include LV customers. Perhaps a better measure would be the total number of interruptions experienced – regardless of voltage or duration. This approach would be more consistent with a recognition of the importance of short interruptions for all customers.

OUTQ58. Do you consider that the proposed areas in scope of the Environmental Action Plan, and associated baseline standards, are appropriate? We particularly welcome views on any areas that should be omitted/included and if new areas should be included, what the baseline standard should be?

The proposals for an EAP are welcome. They represent a continued commitment by Ofgem to the environment as part of the RIIO framework. If Great Britain is to recognise its Net Zero ambitions, it remains crucial for companies to focus on environmentally sustainable networks and the proposals for an EAP support this ambition.

We consider that the proposed areas in scope for the EAP are appropriately broad ranging and indeed the standard also look broadly appropriate. We would neither omit any of the areas highlighted nor include any others, but we have two observations on areas proposed.

First, we welcome the focus on SF₆. As a particularly potent greenhouse gas it is right that measures should be taken to both reduce leakage and the overall SF₆ bank. Further, with the potential for a ban emanating from the European Commission's ongoing review of F-gas regulation, proposals for a re-opener to address such an eventuality are sensible.

Second, we also welcome the recognition of the importance of the Circular Economy. There is evidence in a number of areas that assets are having to be replaced before end-of-life. Solutions which enable parts to be replaced to extend life could significantly reduce waste to landfill while also allowing companies to efficiency defer investment. Further, such assets could also offer better value over time if they are able to be upgraded. Hence, there is also an associated efficiency benefit for consumers, which ties in with Ofgem's NARM proposals for asset health, criticality and risk. To fully account for such benefits, it is important that efficiency is recognised over the lifetime of the assets and not just the cost over the immediate price control period. Ofgem's proposals in this area are a step in the right direction.