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Dear Sir/ Madam,

## **Advancing Performance-based Rate Regulation: S&C Electric Canada Response**

Thank you for the opportunity to provide written feedback on the OEB's 'Advancing Performance-based Rate Regulation' consultation.

S&C Electric Company's diverse, global workforce develops innovative solutions for a more intelligent and resilient electrical grid. Building on over 100 years of technological innovation and customer service, S&C empowers the transformation of the grid for an outage-free, sustainable electrical energy future. Headquartered in Ontario, S&C Electric Canada Ltd., provides equipment and services to electricity distributors and directly to commercial and industrial customers. Our Regulatory Affairs Team understands and develops expertise in utility regulation. We share this expertise with our customers thereby adding value to their planning and decision making.

The evolving challenge of ensuring network reliability and resilience is one of the biggest factors impacting customers' experience today and will likely have an even greater impact in the future as levels of electrification rise. In a regulated sector, regulation will have a key role in driving the response of utilities to these challenges. In a range of jurisdictions, we have seen how Performance-based Regulation has been used to support these aims and deliver better outcomes for consumers. On this basis, we very much welcome this consultation as a timely consideration of how to ensure the sector in Ontario is best placed to respond to the challenges faced.

Overall, we support the OEB's proposed approach; however, we have identified a few points for further consideration, including suggesting some caution and also an emphasis on rewards over penalties. The Appendix provides specific responses to the consultation questions posed by the OEB.



In Summary:

- (1) We support the OEB's overarching approach of initially focusing on Performance Incentive Mechanisms (PIMs) followed by a more fundamental review of rate regulation.** For these to be effective they must provide the potential for achievable upside rewards for utilities. It is also important that potential risks are recognized and addressed. The initial focus on PIMs is a pragmatic approach which recognizes that some changes can be introduced more quickly, thereby delivering benefits to customers at the earliest possible stage.

A fundamental review does take time to get right, but we do note that the consultant may have overestimated the length of time required to develop the RIIO framework (Revenue = Incentives + Innovation + Outputs) in the UK. In reality, the main review (RPI-X@20)<sup>1</sup> took two years from 2008-2010. The remaining time was a phased implementation as part of the usual price control/revenue setting cycle, with RIIO introduced for transmission companies in 2013. Even before this, however, some of the principles were embedded in the final electricity distribution regulatory framework before RIIO (DPCR5), such as the introduction of the Totex Incentive Mechanism and further refinements to the reliability incentives<sup>2</sup>. In other words, there are parallels between the UK and the proposed approach in Ontario with some measures introduced before the completion of the full review process.

- (2) PIMs potentially provide significant value to consumers but there are also risks if they are not designed and calibrated appropriately.** The results of performance monitoring in a range of jurisdictions that have adopted some form of PBR, supports the view that PIMs drive performance improvements. This can be seen in improved reliability and customer satisfaction, faster connections, and improved environmental performance. Conversely, there are also examples where PIMs have been less effective and were eventually discontinued. For example, Ofgem dropped its financial distribution losses incentives as there were issues in accurately measuring the level of losses and the potential for windfall gains or penalties.

This is further addressed in our response to the OEB's specific question below.

- (3) Reliability and resilience should be priority areas of focus for regulation.** Both are fundamental to the customer experience and are becoming even more important as the threats posed by climate change grow and as we transition to higher level of electrification. Increasingly we rely on and expect an uninterrupted supply as critical to all aspects of our economic and social wellbeing.

The OEB has already taken a number of positive steps in this area including the formation of the Reliability and Power Quality Review (RPQR) Working Group. It would, therefore, be important for the early stages of the review to focus on PIMs in these areas, building on a wealth of data available to the OEB through its Scorecard Reporting process. Building customer centred metrics such as Customers Experiencing Multiple

<sup>1</sup> [Handbook for implementing the RIIO model](#) – Ofgem, October 2010

<sup>2</sup> [Electricity Distribution Price Control Review Final Proposals - Ofgem, December 2009](#)



Interruptions (CEMI) or Feeders Experiencing Sustained Interruptions (FESI) could have considerable value. These are metrics already being measured by some utilities in Ontario.

**(4) S&C's Regulatory Affairs Team has experience in developing Performance Based Regulation and would be pleased to provide further insight on specific areas if required.** Two members of the S&C team previously worked on the development and implementation of the original RIIO Framework in Great Britain. They have also participated over the years in initiatives to further develop PBR in countries such as Australia and New Zealand and have actively followed and engaged in a range of initiatives in Ontario, including the Reliability and Power Quality Review (RPQR) working group. If helpful, we could provide further context for the points set out above or indeed any other insights on what we are witnessing internationally.

Yours sincerely,

A handwritten signature in black ink that reads "C. Watts." with a horizontal line underneath.

**Chris Watts**

**Director – Regulatory Affairs**



## Appendix: Responses to OEB questions

We directly address the questions posed by the OEB below.

### ***Question 1a. What do you see as the advantages and disadvantages (or opportunities and risks) of incorporating PIMs?***

PIMs has been proven effective in delivering benefits to consumers in a range of jurisdictions. Taking reliability as an example, data from Great Britain, Australia and New Zealand demonstrated significant levels of improvement in the duration and frequency of interruptions after PIMs were introduced in those countries. The same trend is echoed in improved levels of customer satisfaction in network performance, the quality, and timelines of connections and in improving environmental performance. PIMs drive utility focus, rewarding good performance and potentially penalizing poor performance.

The main challenge with setting PIMs is defining metrics appropriately and assessing the feasibility of acquiring data to ensure that any targets that are set are realistic and achievable. Factors outside utilities' control such as Major Events must also be appropriately addressed. A poorly calibrated metric can lead to incorrect incentives which are not in the interests of utilities or customers.

### ***Question 1b. From your perspective, what are the most important considerations to keep in mind when developing PIMs?***

Simplicity is key. One lesson from the various countries' experience with PBR is that complexity can creep into mechanisms over time, which undermines transparency, and leads to unintended consequences including parties losing faith in the merits of those mechanisms. Any mechanism should be easy to understand and operate, so it is equally easy to assess the impact of that mechanism. One example of this was in Great Britain where a range of separate mechanisms were introduced to enable funding for different aspects of resilience. This raised confusion over how and when individual mechanisms may be triggered based on a range of unique metrics. Going into the next revenue setting process, Ofgem has announced its intention to replace these mechanisms with a single mid-review period re-opener to allow network companies to secure additional funding for resilience initiatives as required and justified.

Adopting a targeted approach in selecting each mechanism is also important. There may be a temptation to try to introduce fundamental change quickly in a range of areas. Better value is likely achieved by identifying the areas of priority focus and getting the right mechanisms to ensure they deliver customer value.

### ***Question 1c. In your opinion, what outcomes do consumers value?***

There are a range of outcomes that consumers value, but these are not fixed, rather they evolve over time as needs and wants change. Based on previous surveys of customer value in various jurisdictions, two main areas of focus tend to dominate – Reliability/Resilience and Affordability. The challenge is balancing outcomes to ensure an appropriate weighting is given to a range of objectives.



In the case of reliability, it is worth noting that further work has been done as part of various PBR regimes to attach a monetary value to various outcomes – this includes the calculation of Value of Lost Load (VoLL) in Great Britain or the Value of Customer Reliability (VCR) in Australia. This provides a way of developing regulatory arrangements that take account of consumer value. It should be noted that views can differ between different types of customers and customer locations. Customer perspectives can also change in the course of time. These factors can impact how mechanisms are set in the first instance as well as how they evolve.

***Question 1d. To which outcomes or performance measures do you believe PIMs should be tied?***

We believe that reliability and customer satisfaction should be prioritized, as these are fundamental to providing value to customers. These measures have tended to form the backbone of most PBR regimes. What has been increasing is the expansion of PBR to cover specific areas linked to the energy transition, e.g. Greenhouse Gas Reduction, Renewable Connections, DER Grid Service Utilization, etc. Many of these have significant merit but, in the interests of limiting complexity and allowing more measures to be added over time, these metrics would probably be a secondary level of focus, once a number of key PIMs are established.

Another key area is the evolution of reliability to also consider resilience measures. This is a challenging area but one taking on a greater level of focus in response to rising threats from climate change in places such as Australia. Therefore, we would also suggest this as a priority area of focus.

***Question 1e. What PIM structure/design is likely to be most effective and most suited to Ontario, considering the existing rate-regulation framework?***

The answer may vary depending on the type of mechanism put in place. Generally, the most straightforward approach is based on setting incentives around quantitative targets. Incentives should be about achieving (or exceeding) a particular target with a view to securing a financial benefit if a certain performance level is achieved, or facing a penalty if a level is not achieved. Those targets should be set based on available data as well as evidence of customer value. Financial rewards and penalties should be based on factors within utilities' control and where robust data is available to ensure incentives are appropriately targeted. For example, in Great Britain, Ofgem previously announced its intention to introduce measures for momentary interruptions, something it recognised as important given customers' increased reliance on an uninterrupted electricity supply. However, Ofgem delayed the introduction of such a mechanism to ensure it has first collected a sufficient volume of data from utilities to inform that incentive. As noted, one advantage the OEB already has is a wealth of data available from the Scorecard Reporting. These data could form the "backbone" for developing targets for each utility.

Another key consideration is whether any mechanism should be symmetric or asymmetric, i.e. whether it should entail both rewards and penalties. This is a judgement to be taken based on the value provided to customers in each area. However, one observation we make is that



successful mechanisms initially have more opportunity for reward and then the targets are tightened over time. The risk of a “penalty only approach” is that it incentivizes utilities toward doing the minimum to avoid the penalty rather than striving to provide additional value.

It is also important that the incentive rates are set at appropriate levels. Ideally, these should reflect how customers value particular outcomes, improvements, and deteriorations in level of performance, but it is also important that they are sufficiently strong to drive the intended behaviours.

***Question 1f. Should PIMs be applied uniformly to all utilities, or should they be utility specific?***

For consistency purposes, PIMs should be applied uniformly to all utilities. This is likely to be necessary in Ontario given the number of distributors.

That said, we recognise utilities face different reliability challenges and that this will be reflected in historic performance. One way to reflect this is to set to the target to improve reliability by a defined percentage over the average of the last three years for that utility. This would reflect the different challenges facing each distributor (i.e., each would have a different numerical target) but the overall approach would remain the same for all.

***Question 1g. What timeline would be appropriate for PIM implementation, and should there be a phased approach?***

A phased approach would be sensible. In most jurisdictions with PIMs these have been built up gradually and modified based on the experience gained. Adopting a targeted focus with just a few PIMs initially would enable both the utilities and OEB to monitor the success and address any unintended consequences. Once a foundation is in place, it can be supplemented with other measures. The risk of introducing too many mechanisms at once is that the likely interactions between mechanisms will make it difficult to assess their individual success and indeed may introduce some confusion.

***Question 1h. How should baseline performance levels be established, and how frequently should targets be reviewed?***

Baseline performance levels should be set based on performance data. This can be partly based on historical information but also enable a degree of forecasting based on performance trends. Again, one advantage that the OEB has in this respect is the detailed Scorecard Reporting that provides a significant level of information helpful in setting mechanisms.

For stability purposes, targets should not be reviewed too frequently. Once every rate setting cycle (5-years in Ontario) should probably be the default. It is possible to develop metrics that periodically adjust automatically, like the tightening of reliability targets set by the CRU in Ireland. If such an approach is adopted, the key point is that the approach must be clearly signalled and understood when the metrics are first introduced so the utilities fully understand the impact over time.



**Question 1i. How should PIMs account for factors outside utility control (e.g., weather events)?**

Incentives should only be based on areas where they can impact utility actions in a way that benefits customers. It is true that some aspects of weather and its impact on the networks are beyond utility control.

We note that in Great Britain under the current Interruptions Incentive Scheme (IIS) certain exemptions are given for company reliability performance where they have been driven by extreme weather/one-off weather events. A similar approach was adopted in both Australia and New Zealand. Therefore, there is precedent for building PIMs that adjust for factors outside of utility control.

**Question 2a. Is this fundamental change required? Why or why not?**

The OEB is right to both recognize and respond to the magnitude of the challenge facing the electricity sector. Other jurisdictions have also recognized this, and it has been reflected in other fundamental reviews including the RIIO process in Great Britain, the Reforming the Energy Vision (REV) program in New York<sup>3</sup>, and Hawaii's Phase 1 and Phase 2 Investigation of PBR<sup>4</sup>. A fundamental review is the right way to consider the full range of different factors relevant to utility remuneration and their impact on the customer experience.

A core part of this might be a consideration of the value of moving to a Total Expenditure (Totex) approach. The key drivers of this have been to remove any 'capex bias' and recognize changes in technology including the availability of less capital-intensive options such as Non-Wires Alternatives/Solutions to meet time-varying demands for services. This gives utilities the flexibility to optimize between opex and capex solutions. A Totex approach was highlighted by CA Energy Consulting as part of its review of the arrangements in Great Britain. This approach has now been adopted in a wider range of jurisdictions including Italy, Portugal and Austria with other countries continuing to consider its merits.

**Question 2b. What are the advantages and disadvantages of pursuing this approach?**

The main advantage is the ability to assess all relevant factors under a single program. It is preferable to a piecemeal approach which has the risk of being disjointed and leading to initiatives that at best overlap, but at worst introduce contradictory messaging and signals for the sector.

**Question 2c. How would this fundamental long-term change impact stakeholders in the sector, both throughout its development and upon implementation?**

The answer to this question depends on how the change is managed and implemented. Transparency is key. All arrangements should be developed with the widest possible range of stakeholder involvement and decisions clearly articulated and linked to the provision of value to

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<sup>3</sup> [White Paper REV - March 2016](#)

<sup>4</sup> [Commission's Phase 2 Decision and Order - Public Utility Commission of the State of Hawaii, December 2020](#)



customers. The timing of changes should also be carefully considered. As noted above, there seems little merit in introducing all of changes at the same time. Rather, consideration should be given to prioritization with some measures introduced early with clear timelines being provided for the introduction of others – these may be linked to certain criteria being met. If managed in this way, stakeholders should be fully appraised on what to expect and thus can adjust to the changes.

***Question 2d. What transition measures could be put in place to provide stability during a period of change?***

The overarching approach OEB is proposing already supports a form of transition. It will enable PIMs to become established before more fundamental changes are introduced.

Generally, the OEB should approach the introduction of new arrangements in stages. In this way it will spread the impact over a period of time. One way this can be achieved with incentives is to start with reputational measures and then strengthen the financial impacts over time. However, in the OEB's case, the existence of the Scorecard Reporting means some of the data that will support the transition is already in place.

***Question 2e. Are there quick wins that the OEB can advance in the short term?***

As noted, we consider that that there may be benefits from an early focus on a limited number of PIMs. Greater focus on rewards, rather than penalties, may help with the acceptance of change. Decisions on the other aspects will ultimately depend on the outcomes of the more fundamental review and should be driven by a range of factors including the availability of data to set incentives and stakeholders' views on priorities.