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2019-10-18

Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, Ontario M4P 1E4
Attention: Kirsten Walli, Board Secretary

Re: EB-2018-0287 Utility Renumeration and EB-2018-0288 Responding to DER's

Dear Ms. Walli:

Storage Power Solutions (SPS) appreciates the opportunity to provide comment to EB-2018-0287 Utility Renumeration and to EB-2018-0288, Responding to DER's. As a preliminary comment, SPS wishes to commend the OEB for a well-facilitated and attended stakeholder consultation process that provided an open forum to share ideas and perspectives on DER. We recognize that this is an important first step in developing additional policies and regulatory rules. Moving forward, we encourage the OEB to integrate related processes, including EB-2019-0207 – DER Interconnection Review, to ensure a holistic review of all relevant issues.

For context, SPS was founded in 2014 and headquartered near Toronto, Canada. SPS designs, manufactures and sells large-scale (1 MWh+) battery energy storage systems (BESS) that are infrastructure-hardened, resilient and affordable. Leveraging our 50+ years of executive experience in AC & DC Power Electronics, Ni-Cd, VRLA, Ni-MH and LFP batteries, we have designed, deployed and managed over 6 GW / 4 GWh in a variety of critical applications, including 1.2 GWh in LFP battery systems for 4G telecom and data/IT network. SPS is currently completing approximately 10 MWh of BESS for large utility customers in the New England and anticipate deploying projects within Ontario in the near future. With this background, SPS believes that we add an important perspective to these Consultations.

While there are numerous issues relating to the scope of these two Consultations, we have focused our responses on the specific three questions posed as objectives for the Stakeholder Consultation meetings held September 17th – 19th 2019.

Question 1: What objectives should the Utility Remuneration and Responding to DERs initiatives aim to achieve?

SPS believes that in order to maximize ratepayer value from DER's, the following need to be key objectives:

- Develop common definitions and related terminology on the types and characteristics of distributed energy resources (DER's), along with their typical applications/use cases.
- Develop common categories of benefits and costs that DER's can provide to the electricity and natural gas systems, such that these categories can be used as the basis to quantify localized benefit-cost estimates and inform asset planning.

- Confirm methodology and principles to be used, in order to consistently assess the benefits & costs of DER's, based on their application and location.
- Enhance energy planning processes (Bulk/Regional/Distribution) to integrate with a broader set of stakeholders, including municipalities and community energy plans, DER asset owners/operators and customers.
- Develop regulatory rules within RRF to provide a comprehensive regulatory framework to facilitate and support DER's, while meeting other important regulatory objectives of low cost, safety, integrity and reliability of the grid and pipe networks.
- Provide regulatory tools to allow the net present value of DER projects to be monetized, while providing utilities, customers and developers with regulatory certainty on what these regulatory rules are.
- Create a DER's roadmap that integrates all tasks, deliverables and milestones in a comprehensive work plan.

Question 2: What specific problems or issues should each initiative address?

EB-2018-0287 Utility Renumeration:

Scope: Consultation to identify how to remunerate utilities in ways that make them indifferent to traditional or innovative solutions, better supports their pursuit of least cost solutions, strengthens their focus on long-term value and requires them to reflect the impact of sector evolution in their system planning and operations.

SPS believes that changes in regulated companies' allowed return (return on equity on capital investments) and ability to generate ancillary revenues will be essential to transform sector roles and accountabilities. This includes evolving the role of transmission and distribution companies to expand their system planning and operations accountabilities to manage more complexity in overall network performance and stability with DER's, while being neutral on ownership. Rewarding these operators, when outcomes result in lower transmission and distribution utility costs should be a focus of future proceedings relating to transforming both the electricity grid and natural gas network. Below are some specific sub-issues for consideration:

- What enhancements can be made to the regulatory treatment of capital investments and ratebase to encourage regulated transmission and distribution companies to implement innovative/least-cost asset decisions that include DER's and market-based solutions, while also ensuring safety, reliability, resiliency of our grid and pipe infrastructure?
 - For example, London Economics International¹ outlines experience in the UK, California and New York to illustrate how other jurisdictions incent distributors based on performance-based outcomes and provide alternative models that treat capex and opex interchangeably.

¹ Approaches to Utility Renumeration and Incentives, prepared for the Ontario Energy Board
<https://www.oeb.ca/sites/default/files/Remuneration-DER-Stakeholder-Meeting-LEI-Presentation-20190828-v2.pdf>

- What Earning Sharing Mechanisms or other innovative regulatory revenue platforms can be incorporated into RRF to incent distributors to exceed performance-based outcomes related to DER's? ²
- How can investments in Non-Wires Alternative (NWA) be recovered by utilities in such a way as to make them indifferent to owning the asset versus procuring a service (e.g. dispatch rights on an energy storage or DR asset), while providing regulatory certainty?
- As distributors expand on their current role (infrastructure ownership, maintenance, physical operations, customer billing, interconnection approval) to assume the functions of a distribution system operator of a more complex system with more distributed resources, should they be permitted to own / operate DER's? As highlighted in the Energy Transformation Network of Ontario's report, this recommendation has strong differences of opinions between stakeholders³. SPS believes that it is helpful in answering this question to distinguish between Front of the Meter (FTM) DER's, where a DER is replacing a distribution asset, versus other FTM applications (wholesale generation) or Behind the Meter applications (customer DR and energy efficiency). Where there is a direct replacement of the utility asset, we believe allowing utility ownership creates an appropriate alignment of incentives.

EB-2018-288 Responding to DER's

Scope: Consultation to develop a more comprehensive regulatory framework that facilitates investment and operation of DERs on the basis of value to consumers and supports effective DER integration so the benefits of sector evolution can be realized.

In order to enhance the existing Renewed Regulatory Framework (RRF) to support cost effective DER integration, we believe the following issues need to be addressed:

- What DER benefits and costs should be accounted for in rate and regulatory framework design to give customers and utilities appropriate incentives and achieve lower energy and distribution costs. How can localized benefits and costs be derived to reflect the full value of DER's in solving localized grid constraints?
- How can investment planning and asset management processes be enhanced to require distributors to fully consider all NWA options in a capital project, including DERS, before proceeding with a wires or pipe alternative? Specifically, should utilities be required to seek from the market, potential NWA solutions to a specific asset problem to determine if there is a more cost-effective solution to a wire or pipe solution?
- Similarly, for all projects where a NWA has a higher benefit-cost ratio than traditional wire or pipe solutions, should distributors be encouraged to develop competitive procurement processes and RFP's to seek a market-based NWA solution?
- What performance-based outcomes related to DER's should be included and what are the appropriate KPI's? How should performance-based incentives and penalties for utilities be

² In addition to New York and California, other jurisdictions of note that are building in DER performance-based metrics into their PBR include Minnesota where a significant number of metrics have been proposed based on effectiveness and success of "shaping, shifting, and shedding metrics" associated with demand response. Hawaii has also recognized the importance of DER in its PBR deliberations and has outcome metrics on utilizing customer-owned DER to support the grid functions and improving interconnections.

³ <http://www.ieso.ca/en/Learn/Ontario-Power-System/etno/ETNO-Publications>

structured to optimize achievement of net benefits from DER's and to incent exceeding service levels for DER's. The requirement for a comprehensive regulatory framework touches on both the utility remuneration question as well as responding to DER's.

- What level of reporting of DER's should be included in each distributor's Distribution System Plan?
- What grid modernization efforts are required to support DER integration to maximize ratepayer benefits, while ensuring network safety, reliability and resiliency? This was discussed in length in ICF's submission.⁴ Additionally, should each distributor be required or encouraged to develop explicit grid modernization plans, in preparation for their next IR update?
- What other aspects of rate design should be holistically examined in conjunction with a review of DER's, to ensure a balance between participating customers and non-participating customers. This rate and policy review could include net metering policies, new rate structures for evolving end uses such as EV's and rate design issues on demand charge, amongst others, This review should be guided by certain principles, including optimizing existing assets; minimizing cross-subsidization between participating and on-participating customers; and sending appropriate economic signals to customers on DER's (e.g. setting demand charges based on coincident peak).

Question 3: What principles should guide the development and selection of policy options

We agree with ICF's presentation to the OEB, that the overarching focus needs to be ensuring cost-effective outcomes for customers, enabling customers to choose innovative technologies, while enhancing the customer experience and creating value. In addition to cost-effectiveness, DER's add customer value in providing reliability, enhanced power quality, environmental attributes, and local resiliency/back up power.

Other principles we believe should be considered include the following:

- Optimize existing network assets and minimize stranded costs by extending their useful life via prudent asset management principles that include explicit examination of all cost-effective alternatives, including NWA.
- Planning processes need to be truly integrated, involving all stakeholders collaboratively. Development of information and data-sharing platforms (e.g. hosting capacity maps and substation load & capacity data) would benefit this integration.
- Compensation for DER's, whether by rates or an alternative pricing mechanism, that reflect the full value of the grid/pipe services they provide, including localized benefits.
- Rate design should be included as a key tool to achieve efficiency while balancing impacts to non-participating customer groups.
- Utility return should evolve to reward performance-based outcomes with managing networks and grids, while being agnostic to asset ownership.
- Safety and reliability of the network can not be compromised and all DER's need to be owned and operated in full compliance with all codes and standards and cybersecurity requirements. As with all energy assets, these standards are evolving rapidly and require a disciplined approach including use of asset management and management systems.

⁴ <https://www.oeb.ca/sites/default/files/Remuneration-DER-Stakeholder-Meeting-ICF-Presentation-20190828.pdf>

We thank the OEB for the opportunity to provide SPS' perspectives on the DER's Stakeholder Consultations. We trust these comments will be considered in the review process and look forward to further dialogue on these matters, as well as any future consultation relating to DER's.

Respectfully submitted,



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