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November 15, 2019

VIA RESS AND COURIER

Ontario Energy Board
P.O. Box 2319
2300 Yonge Street, 27th Floor
Toronto, ON M4P 1E4
Attention: Registrar

Dear Ms. Long:

Re: Alectra Utilities Corporation (Alectra) Distribution Rates Application
Board File No. EB-2019-0018

We are counsel to the Distributed Resource Coalition (**DRC**) in the above-mentioned matter. Please find enclosed DRC's written submissions on the M-Factor proposal, filed pursuant to Procedural Order No. 1.

Sincerely,

Jonathan McGillivray

c. Wilf Steimle, Electric Vehicle Society
Cara Clairman, Plug'n Drive
Indy J. Butany-DeSouza, Alectra Utilities Corporation
Charles Keizer, Torys LLP

ONTARIO ENERGY BOARD

IN THE MATTER OF the *Ontario Energy Board Act, 1998*, S.O. 1998, c. 15, Sched. B, as amended;

AND IN THE MATTER OF an application by Alectra Utilities Corporation for an order or orders approving or fixing just and reasonable rates and other services charges for the distribution of electricity as of January 1, 2020.

EB-2019-0018

SUBMISSIONS OF

DISTRIBUTED RESOURCE COALITION (DRC)

November 15, 2019

INTRODUCTION AND OVERVIEW

1. We are counsel to the Distributed Resource Coalition (**DRC**) in the Ontario Energy Board (the **Board**) EB-2019-0018 proceeding to review Alectra Utilities Corporation's (**Alectra**'s) application pursuant to section 78 of the *Ontario Energy Board Act, 1998*, as amended, for approval of electricity distribution rates and charges in the Horizon Utilities, Brampton, PowerStream, Enersource and Guelph rate zones effective January 1, 2020, approval of capital funding based on a rate-adjustment mechanism referred to as an "M-factor", and several other orders of the Board[1] (collectively, the **Application**).

2. The Application is among the first electricity distribution applications that the Board is being asked to consider in a context that is changing significantly as a result of the use and integration of distributed energy resources, including electric vehicles (**EVs**) and energy storage (collectively, **DERs**) into the distribution grid. It is among the first major applications that requires the Board to consider the potential capital and operational impacts of bidirectional electricity flow on the distribution grid over the five (5) year 2020-2024 planning period and arrive at just and reasonable rates for all Alectra customers during this dynamic rebasing deferral period. The Applications seeks approval for capital funding in order to "bridge the gap" between the level of investment funded through base rates and the level of investment needed, in Alectra's view, to address system priorities and outcomes consistent with customer needs and preferences, during its rebasing deferral period.[2]

3. Several of Alectra's witnesses, including its external consultants, confirmed that the changing circumstances of DERs are a factor motivating Alectra's M-factor requests in this Application,[3] transactive energy is a component of those motivating factors,[4]

[1] A complete list of Alectra's requested relief is set out in the Application at Exhibit 1, Tab 2, Schedule 1.
[2] Exhibit 2, Tab 1, Schedule 1, p. 1.
[3] Hearing Transcripts, Volume 2, 135:22-25 (Mr. Basilio).
[4] Hearing Transcripts, Volume 2, 135:26-136:1 (Ms. Sathe).

and DERs, including EVs, are relevant considerations in Alectra's stakeholder consultation in relation to the Application.[5]

4. Alectra's evidence confirms that at least 4,100 MW of DERs have been contracted or installed in Ontario in the last 10 years[6] and that DER capacity growth closely rivals the 5,600 MW net growth in transmission-connected generation added during the same 10-year time period.[7] Ms. Sathe confirmed that Alectra anticipates approximately 22,000 passenger EVs in its service territory by the end of the distribution planning period (2024), with a corresponding load forecast of 30,300 kW (on-peak, assuming 20% of EVs are charging at peak times).[8] DERs are, moreover, providing both new opportunities and new challenges for the distribution system in Alectra's service territory and can provide benefits to customers in the form of load requirements, avoided stranded assets, investment deferrals in transmission and distribution infrastructure, and mitigated need for system expansion.[9]

5. DRC includes end-use residential customers with DERs that may act as producer-consumers, or "prosumers", in a bidirectional electricity grid. It is the only intervenor before the Board in this Application that is focused squarely on the new context of electricity distribution that is, and will be, significantly impacted by DERs.

6. DRC's submissions on the Application are intended to assist the Board in understanding the new and evolving impact of DERs on traditional rate determinants and distribution system planning. DRC makes these submissions for the purpose of assisting the Board in: (i) optimizing proposed and existing distribution system assets and investments for the long-term benefits of all customers, (ii) efficiently

[5] Hearing Transcripts, Volume 2, 136:3-7 (Mr. Lyle).
[6] This figure excludes an unrecorded amount of load control, behind-the-meter energy storage, and demand response capacity.
[7] Exhibit 04, Tab 01, Schedule 01 (Distribution System Plan) [**DSP**], Appendix A16 – Distributed Energy Resource (DER) Integration, p. 5 (quoting IESO data).
[8] Hearing Transcripts, Volume 2, 138:4-18; Interrogatory Response DRC-2, p 2. During the Technical Conference, Ms. Sathe confirmed that the 22,000 figure includes passenger EVs only, and does not include additional expected increases in electrified public transit (e.g., battery electric buses, or BEBs): Technical Conference Transcripts, Volume 1, 107:15-108:11.
[9] Hearing Transcripts, Volume 2, 137:2-25.

facilitating the integration and connection of existing and innovative DERs to achieve long-term customer and grid efficiencies, and (iii) better understanding direct customer needs, preference, and opportunities relating to DERs.

7. DRC's submissions are organized as follows:

   I. DER and EV-related DER growth, integration, and policy are driving change in the electricity sector and the role of the distribution utility;

   II. Potential DER-related growth and productivity enhancements; and

   III. DRC position on specific DER-related capital and operations expenditures that may result in long-term productivity benefits for all Alectra customers.

8. Generally, DRC submits that: (i) DERs and EV-related DER growth and integration are resulting in fundamental changes to the distribution grid that will impact electricity supply and demand, customer preference, capital expenditures, operations and maintenance, load, and productivity during the planning period, (ii) DER-related growth and capital investments may result in productivity enhancements, but further tracking, monitoring, and reporting may be required; and (iii) a number of Alectra's proposed DER-related capital investments set out in the DSP may be beneficial to customers.

9. DRC respectfully requests that the Board:

   (a) Include consideration of the material and relevant evidence on the DER context in its decision on the Application;

   (b) Require Alectra to transparently track, monitor, and report on DER impacts on customer costs, operations, reliability, load, and productivity;

   (c) Consider the customer benefits and potential productivity gains associated with the DER-related DSP investments, including the (i) Drive for the Workplace program, (ii) Alectra Drive at Home; (iii) DER Integration investments (including

the DER Control Platform and the Smart DER Platform); and (iv) DER aspects of Fleet Renewal

(d) Approve the DER-related investments set out in (c), above, as filed, as elements relating to the M-factor part of the Application, subject to any updates filed by Alectra and any adjustments that the Board deems appropriate.

I. DER and EV-related DER growth, integration, and policy are driving change in the electricity sector and the role of the distribution utility

10. DRC submits that growth and integration of DERs, including electric mobility DERs, resulting from the electrification of transportation are fundamentally changing the distribution of electricity. Specifically, each and all of electricity supply and demand, customer preferences, capital expenditures, operations and maintenance, and load are being materially impacted by DERs.

11. The Independent Electricity System Operator defines DERs as "electricity-producing resources or controllable loads that are directly connected to a local distribution system or connected to a host facility within the local distribution system."[10] DERs may include solar panels, combined heat and power plants, electricity storage, small natural gas-fuelled generators, electric vehicles, and controllable loads (such as HVAC systems and electric water heaters).[11]

12. Alectra confirmed the significant integration of at least 4,100 MW of DERs in Ontario in the last 10 years (contracted or installed).[12] Alectra's view, moreover, is that electrified mobility is "truly the way of the future."[13] Of the 34,357 EV electricity customers in Canada in the third quarter of 2018,[14] approximately one-third, or

[10] IESO, Ontario's Power System, Distributed Energy Resources, available online at: http://www.ieso.ca/en/Learn/Ontario-Power-System/A-Smarter-Grid/Distributed-Energy-Resources.
[11] IESO, Ontario's Power System, Distributed Energy Resources, available online at: http://www.ieso.ca/en/Learn/Ontario-Power-System/A-Smarter-Grid/Distributed-Energy-Resources.
[12] This figure excludes an unrecorded amount of load control, behind-the-meter energy storage, and demand response capacity.
[13] Exhibit K2.2, pp. 7-11 (Alectra Utilities, "Electric Vehicles & Charging Stations", available online at: https://www.powerstream.ca/innovation/electric-vehicles-and-charging-stations.html).
[14] DSP, Appendix A02 at figure A02-10.

10,000, of those customers were in Alectra's service territory.[15] Further, FleetCarma has reported that the growth in EV adoption in Ontario has actually annually increased between 140% to 200%.[16]

13. Alectra anticipates that there will be approximately 22,000 EVs in its service territory by the end of the distribution planning period (2024), with a corresponding load forecast of 30,300 kW (on-peak, assuming 20% of EVs are charging at peak times).[17] Alectra confirmed that over the last five-year period, it has seen an increase in EVs in its service territory of an order of magnitude, with year-over-year growth of approximately 60 per cent per year.[18]

14. Alectra's evidence in this Application addresses several issues relevant to DRC, including, without limitation, the integrated distribution system plan and any supporting load assumptions,[19] asset management,[20] customer engagement,[21] smart meter efficiencies, DER integration through the proposed DER Control Platform and the Smart DER Platform,[22] grid modernization, the system capability assessment for renewable energy generation and grid modernization, electrification of transportation infrastructure, customer connections,[23] EV charger upgrades,[24] fleet renewal,[25] and related capital and operational expenditures).

15. Alectra's evidence in support of the proposed M-factor furthermore refers to the "exponential growth in EV adoption" and looks to that EV growth to potentially reduce peak load (and customer costs) to provide "balance between EV and building

[15] DSP, Appendix A16 at p. 6.
[16] FleetCarma, "Electric Vehicles Sales Update Q2 2018, Canada" (August 10, 2018), available online at: https://www.fleetcarma.com/electric-vehicles-sales-update-q2-2018-canada/;
FleetCarma, "Electric Vehicles Sales Update Q2 2018, Canada" (August 10, 2018), available online at: https://www.fleetcarma.com/electric-vehicles-sales-update-q2-2018-canada/.
[17] Hearing Transcripts, Volume 2, 138:4-18 (Ms. Sathe); Interrogatory Response DRC-2, p. 2.
[18] Hearing Transcripts, Volume 2, 138:25-139:5.
[19] DSP, ss. 5.2.1 and 5.3.4, 5.4.1, 5.4.2, and 5.4.3.
[20] DSP, ss. 5.2.1.4, 5.3.1, 5.3.2, and 5.3.3.
[21] DSP, ss. 5.2.1.5 and 5.2.2.
[22] DSP, Appendix 16; DSP at s. 5.4.3 starting at p. 426.
[23] DSP, Appendix A02 at p.16 and figure A02-10 (sales data).
[24] DSP, Appendix A02.
[25] DSP, Appendix 19 at pp. 1-25.

loads" through its ongoing "Drive for the Workplace" initiative. Alectra also relies on this evidence broadly to support the M-factor and grid modernization efforts related to the penetration of DERs, information and control technologies,[26] and to "prepar[e] the grid for electrification of transportation infrastructure".[27]

16. Ms. Sathe confirmed that there are a significant number of capital investments pertaining to DERs and associated EV investments in the Application.[28] She also indicated that these capital investments are necessary and central to building Alectra's capability, expertise, and understanding on how to integrate DERs into the distribution grid.[29]

17. All of Alectra's proposed grid modernization approaches, capital expenditures (including customer connections, stations capacity, DER integration, and fleet renewal investments) have a direct and substantial impact on the electric mobility, electricity consumers represented by DRC.

II. Potential DER-related growth and productivity enhancements

18. This Application is before the Board during a period of significant change and growing DER benefits in the electricity distribution sector. In light of this dynamic change, DRC submits that Alectra has made reasonable use of the M-factor in order to bridge the gap between investments funded through base rates and the level of investment needed to address new system priorities and outcomes that recognize the role of DERs and are consistent with customer needs and preferences during its rebasing deferral period.

19. Alectra recognizes that its role in its service territory is evolving as new DER technologies emerge and are changing Alectra's traditional operating parameters. Alectra explicitly acknowledges that its proposed DER integration DSP investments

[26] DSP at s. 5.3.4. at p. 320.
[27] DSP at s. 5.3.4. at p. 332.
[28] Hearing Transcripts, Volume 2, 139:23-28.
[29] Hearing Transcripts, Volume 2, 139:23-28.

(discussed in further detail below) are "driven by expected increasing adoption of DER[s] in [Alectra's] service territory and the significant challenges and opportunities that such a trend presents for the utility's distribution system and for its customers."[30] Alectra further recognizes the significant impact that higher adoption of EVs is expected to have in its service territory in the next few years.[31] In line with this expectation, Alectra has outlined the Alectra Drive for the Workplace and Alectra Drive at Home initiatives as part of its DSP.

20. In spite of Alectra's evidence that DERs may result in efficiencies, improved productivity, and opportunities for deferred capital investment, Alectra does not appear to-date to have undertaken significant tracking, monitoring, or reporting on DER impacts on customer costs, operations, reliability, and productivity. Alectra's position is that the DER-related pilot projects it has proposed as part of the DSP are necessary in order to determine whether several of the above-identified benefits are possible outcomes of DER integration:

> MS. DeMARCO: Thanks for that. Your evidence is, of course, that DERs themselves may result in similar deferred investments and savings and associated efficiencies longer-term that potentially, I assume, you would posit the investment now warrants savings later.
> So if you could provide any estimate of those associated --
>
> MR. WASIK: So that is the purpose of us undertaking the pilots to study that, to see how that can be done. So without us completing this particular pilots that we identified in this Distribution System Plan, we would not be able to forecast whether we could, in fact, defer distribution infrastructure.
> So we have to complete the pilots to study them in order for us to then determine whether that is a possible outcome.
>
> MS. DeMARCO: Do you have any estimates associated with that, or working assumptions?
>
> [Witness panel confers]
>
> MS. SATHE: We would have to run the pilots and get the results from the pilots in order to have any estimates in hand.

[30] DSP, Appendix 16, p. 5.
[31] DSP, Appendix 16, p. 5.

> MS. DeMARCO: Presumably there was some documentation or numerical estimation that you relied upon to arrive at the conclusion that there would be savings as we discussed, that there would be associated deferred investment or avoided capital expenditures further down the line in order to put that in the evidence? Is that fair?
>
> MS. SATHE: So we -- just give me a minute, please.
>
> [Witness panel confers]
>
> MS. SATHE: So while assessing the need for the pilots, it's -- we're not only looking at the benefit that we can get out of integrating distributed energy resources and harnessing the value.
> Equally importantly -- or I would say more importantly, it is also to assess the risk of not carrying out this integration and building the integration capabilities and capacity. So at this point in time we would have to run these pilots over several years in order to get in market results so that we can then build a fair assessment of risks and benefits, both.
>
> MS. DeMARCO: Happy if you've got them, any avoided risk assumptions, quantified avoided risk as well? Do you have any?
>
> MS. SATHE: We do understand qualitatively that there are risks, but the whole idea of doing the pilot is being able to quantify it.[32]

21. Alectra's current non-coincident load forecast furthermore does not include Alectra's expectations for EV growth during the planning period.[33]

22. Alectra recognizes that DERs and DER-related growth may result in significant impacts on load and improvements to productivity, in addition to benefits to both DER users and all distribution customers. DRC submits that further tracking, monitoring, and reporting of these benefits may be required as the initial pilot projects that Alectra has proposed are implemented.

III. DRC position on specific DER-related capital and operations expenditures that may result in long-term productivity benefits for all Alectra customers

23. Alectra's DSP proposes several DER-related capital investments that are proposed for funding through the M-factor or base rates over the 2020 to 2024 period, worth a total of approximately $12.4 million:

[32] Hearing Transcripts, Volume 2, 146:18-148:9.
[33] Technical Conference Transcripts, Volume 1, 108:23-109:5.

Table 1: Planned DER-related Capital Investments in DSP[34]

Project Code	Project Name	$MM	Funding
150679	Alectra Drive for Workplace	0.8	M-factor
150680	Alectra Drive at Home	2.7	M-factor
150693	Blockchain (Smart DER Platform)	2.4	M-factor
150747	Net Zero Energy Emissions (DER Control Platform)	1.6	M-factor
150694	Cityview Microgrid Enhancement	0.1	M-factor
150332	Residential Solar Storage (Non-Wires Alternative Pilot)	4.0	M-factor
150681	Data Analytics	0.7	Base
	Total	**12.4**	

24. DRC is of the view that a number of proposed expenditures related to certain DERs may result in shorter-term costs that may producer longer-term productivity and customer benefits. We have specifically considered the DSP relating to the following projects:

    (a) Alectra Drive for the Workplace;

    (b) Alectra Drive at Home;

    (c) DER Integration (DER Control Platform and Smart DER Platform); and

    (d) DER aspects of Fleet Renewal.

25. DRC respectfully submits, contrary existing Board guidance on electric mobility DERs, that the Board should prudently consider electrified transportation DERs as potentially eligible distribution investments, where they are economic, prudent, and facilitate long-term customer efficiency.

A. Alectra Drive for the Workplace

26. DRC supports the proposed "Alectra Drive for the Workplace" program on the basis that it will demonstrate the value of integrating smart EV charging systems at

[34] Undertaking Response J2.6.

workplaces into the distribution grid in order to manage the mass uptake of EVs in a safe and reliable manner.

27. Alectra indicates that the planned investment will help manage the flow of electricity needed to serve the building and EV charging stations, so that electricity costs are minimized for commercial customers while EV drivers have an easy and accessible charging solution.[35] Alectra states that the initiative is driven by:

    (a) exponential growth in EV adoption combined with increasing quantity and value of EVs from global automakers;

    (b) workplaces being challenged to serve this new and unfamiliar market with limited understanding of EV technology; and

    (c) facilities large enough to host this type of EV charging service and responsible for electricity demand charges are also large enough to have other load demands (e.g., HVAC) which can be temporarily reduced to balance EV and building loads.[36]

28. DRC submits that it is essential for utilities to improve their understanding of the impact of EV charging on the distribution system, facilitate the benefits associated with EV charging, and manage any related risks. The Drive for the Workplace initiative is explicitly intended to pilot technologies and business models that will allow Alectra to coordinate DER update and operation and avoid any possible negative impacts, without requiring expensive enhancements to the distribution network.[37] Ms. Sathe moreover confirmed that the program builds Alectra's technical capability and capacity to integrate EV charging into the distribution system.[38]

29. DRC supports the Drive for the Workplace program to the extent that it will improve Alectra's knowledge and understanding of EV charging, its impacts on and benefits

[35] Undertaking Response J2.5, Attachment 1 (Project Number: 150679).
[36] DSP at s. 5.3.4, p. 328.
[37] DSP at s. 5.3.4, p. 328.
[38] Hearing Transcripts, Volume 2, 125:24-126:3.

for the distribution system, and the ability of the utility to realize the customer benefits associated with exponential growth in EV adoption.

B. Alectra Drive at Home

30. DRC supports the proposed "Alectra Drive at Home" program on the basis that it will demonstrate the value of integrating smart EV charging systems in multi-rise buildings and residential homes into the distribution grid in order to manage mass uptake of EVs in a safe and reliable manner.

31. Alectra indicates that the initiative will provide insight into: (i) the characteristics of EV charging; (ii) how EVs can be aggregated and controlled to provide the benefit at the local, regional, and provincial system levels; and (iii) customer response to these control and optimization strategies.[39]

32. As with the Drive for the Workplace program, DRC submits that it is essential for utilities to improve their understanding of the impact of EV charging on the distribution system, facilitate the benefits associated with EV charging, and manage any related risks. The Drive at Home initiative will provide a basis for this understanding and coordinate EV uptake and operation in a manner that maximizes customer benefits and minimizes costs and risks.

33. DRC supports the Drive at Home program to the extent that it will improve Alectra's knowledge and understanding of EV charging, its impacts on the distribution system, and the ability of the utility to realize the customer benefits associated with exponential growth in EV adoption.

C. DER Integration (DER Control Platform and Smart DER Platform)

34. Alectra's DER Integration investment has two components: the DER Control Platform (Net Zero Energy Emissions) and the Smart DER Platform (Blockchain). DRC agrees with Alectra that the DER Control Platform and Smart DER Platform

[39] Undertaking Response J2.5, Attachment 1 (Project Number: 150680).

are pilot projects that should be implemented now. Alectra notes that these pilot projects will enable Alectra to prepare its distribution system to safely and reliably respond to the expected uptake of DERs with a coordinated architecture that balances the benefits of DERs to their owners with the costs and benefits of DERs for all customers connected to the distribution system.[40]

35. DRC supports Alectra's DER Control Platform on the basis that will allow Alectra to integrate DERs with its traditional distribution operation technology systems. Specifically, the project will enable Alectra to: (i) build capabilities that could predict the grid operation impacts of DERs; (ii) help mitigate power quality issues associated with DERs; (iii) and reduce peak demand.[41] Alectra states that it is undertaking the project now, without delay, in order to prepare the distribution system to efficiently, safely, and reliably respond to the expected uptake of DERs, optimize the benefits of DERs to customers and the grid, and permit Alectra to realize the full potential benefit of DER integration.[42]

36. DRC supports Alectra's Smart DER Platform initiative on the understanding that it will prepare Alectra to realize benefits to both "prosumers" and customers generally in a bidirectional electricity grid. Alectra states that the initiative will help it to prepare to engage with customers in a real-time and transparent process to record the flow of electricity to and from DERs, which, in turn, is expected to enable the efficient procurement of distribution benefits, such as demand response and frequency regulation.[43] Alectra indicates that the project will provide a robust settlement mechanism between Alectra and customers, backed by timely and efficient financial transactions, to enable overall trust and customer value delivery and leading to increased customer satisfaction.[44]

[40] DSP, s. 5.4.3, p. 427.
[41] DSP, Appendix A16, p. 10.
[42] DSP, Appendix A16, p. 11.
[43] Undertaking Response J2.5, Attachment 1 (Project Number: 150693).
[44] Undertaking Response J2.5, Attachment 1 (Project Number: 150693).

D. DER Aspects of Fleet Renewal

37. Alectra's existing light-duty vehicle fleet includes 6 EVs and 16 hybrid-electric vehicles out of a total of 322 light-duty vehicles.[45] Seventeen of Alectra's 182 heavy-duty vehicles are hybrid-electric.[46] Alectra has indicated that it regularly assesses EV technologies and costs against operational requirements as part of its vehicle replacement process.[47] Unfortunately, Alectra has not identified any efficiency savings as a result of utilizing EVs or hybrid-electric vehicles for the 2020-2024 planning period.[48] It nevertheless recognizes that utilization of EVs hybrid-electric vehicles and associated reductions in fuel costs is one of the ways that it can realize efficiency savings in relation to the fleets that it operates.[49] DRC supports Alectra's proposed fleet renewal investments to the extent that they consider the benefits and efficiencies of EVs. Mr. Wasik confirmed that Alectra's decision-making in relation to fleet renewal includes an evaluation of the entire purchase on the basis of its entire cost and benefit assessment.[50] DRC encourages further electrification of Alectra's fleet during the 2020 to 2024 period.

RELIEF REQUESTED

38. DRC respectfully submits that: (i) DERs and EV-related DER growth and integration are resulting in fundamental changes to the distribution grid that will impact electricity supply and demand, customer preference, capital expenditures, operations and maintenance, load, and productivity during the planning period, (ii) DER-related growth and capital investments may result in productivity enhancements, but further tracking, monitoring, and reporting may be required; and

[45] Interrogatory Response DRC-4, p. 2 (Table 1).
[46] Interrogatory Response DRC-4, p. 2 (Table 1).
[47] Interrogatory Response DRC-4, p. 2-3.
[48] Interrogatory Response DRC-4, p. 3.
[49] DSP, Appendix A19, p. 7.
[50] Hearing Transcripts, Volume 2, 149:22-26.

(iii) a number of Alectra's proposed DER-related capital investments set out in the DSP may be beneficial to customers.

39. DRC respectfully requests that the Board:

(a) Include consideration of the material and relevant evidence on the DER context in its decision on the Application;

(b) Require Alectra to transparently track, monitor, and report on DER impacts on customer costs, operations, reliability, load, and productivity;

(c) Consider the customer benefits and potential productivity gains associated with the DER-related DSP investments, including the (i) Drive for the Workplace program, (ii) Drive at Home program; (iii) DER Integration investments (including the DER Control Platform and the Smart DER Platform); and (iv) DER aspects of Fleet Renewal

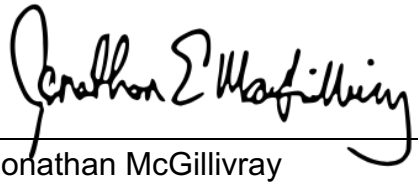
(d) Approve the DER-related investments set out in (c), above, as filed, as elements relating to the M-factor part of the Application, subject to any updates filed by Alectra and any adjustments that the Board deems appropriate.

ALL OF WHICH IS RESPECTFULLY

SUBMITTED THIS 15th DAY OF

NOVEMBER, 2019.

Lisa (Elisabeth) DeMarco
DeMarco Allan LLP
Counsel for Distributed Resource Coalition



Jonathan McGillivray
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Counsel for Distributed Resource Coalition