John Vellone
T: 416-367-6730
jvellone@blg.com

Colm Boyle
T: 416-367-7273
cboyle@blg.com

Borden Ladner Gervais LLP
Bay Adelaide Centre, East Tower
22 Adelaide Street West
Toronto ON M5H 4E3
Canada
T 416-367-6000
F 416-367-6749
blg.com

File No. 99576.89

February 10, 2023

BY RESS and EMAIL
registrar@oeb.ca

Ms. Nancy Marconi
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, Ontario M4P 1E4

Dear Ms. Marconi:

Re: Elexicon Energy Inc. ("Elexicon") Application for 2023 Distribution Rates and Incremental Capital funding ("Application")
Ontario Energy Board ("OEB") File Number: EB-2022-0024
Redactions of Attachments to SEC-01

We write in response to Procedural Order No 4 issued by the OEB on February 8, 2023 directing Elexicon to file revised redacted versions of Attachments 1 and 2 to SEC-01. Please find the revised redacted versions of Attachments 1 and 2 to SEC-01 enclosed.

Please contact the undersigned with any questions.

Yours truly,

J Vellone

John Vellone

JV/CB

Attachment #1

Board Meeting

Date of Report	June 6, 2022
Submitted by	Indy J. Butany-DeSouza, President & Chief Executive Officer
Subject	CEO Report
Meeting Date	June 14, 2022

Action Request:

☐ Recommend/Approve ☒ For Discussion ☐ For Information Only

[redacted]

[redacted]

Reliability

For Q1 2022, SAIDI is 0.376 hours, which is trending between threshold and target; SAIFI is 0.231 outages, which is trending between target and stretch.

Prior to the May derecho storm, the cyclic tree trimming was in progress in all districts except for Belleville, which is coordinated by the City of Belleville rather than by Elexicon. There were no major customer issues reported, and all three contractors are making steady progress towards completion. Since the storm, all contractors have resumed tree trimming to complete this year's cycle areas.

[redacted]

May 21st Severe Thunderstorm and Power Restoration Efforts

On Saturday, May 21st, a severe thunderstorm, known as a derecho, caused extensive damage to Elexicon's distribution system. A derecho is a widespread, long-lived, straight-line wind storm that is associated with a fast-moving group of severe thunderstorms.

In the aftermath, 64,000 customers were without power in the communities of Ajax, Belleville, Bowmanville, Pickering, Uxbridge and Whitby. The Crisis Management Team immediately activated the organization's Power Restoration Plan and declared a Level 3 outage situation, which involves any power interruption event affecting more than 25,000 customers with an expected restoration time exceeding 24 hours.

Power restoration efforts were non-stop, with crews and system operators working around the clock to restore power as quickly and as safely as possible. The damage was severe and widespread, particularly in areas such as south Ajax, south Pickering, northwest Pickering, and Uxbridge. Environment Canada confirmed that an EF2 tornado struck Uxbridge, including our substation – which required a rebuild.

The storm, and the impact it had on our distribution system, was more destructive than the 2013 ice storm. While restoration was challenging and the team faced a number of obstacles, within just over a week all power was restored. Please refer to Appendix A for a summary of the May 21, 2022 Level 3 Outage.

Business Continuity Plan

The work to refresh the Business Continuity Plan ("BCP") was completed in December 2020. In 2021, Management executed quarterly drills to test the completeness and usefulness of the BCP. These exercises tested the Recovery Time Objectives of Elexicon's critical business functions, and the use of the Virtual Incident Command Centre to facilitate efficient, remote communications.

Training and refresher exercises continue in 2022; recovery team alternates were introduced through a simulated major event in March 2022. Another Level 3 restoration simulation will be undertaken prior to year end to test and further refine the Power Restoration Plan. Feedback from the training exercises has been positive, as indicated through internal staff surveys. The results and learnings from these drills have been integrated into the plans and procedures. This will keep the plan fresh and improve organizational readiness and response in the event of a real emergency, such as the one experienced in May 2022.

Advanced Distribution Management System ("ADMS") Project

The ADMS Project completed Phase 1 (the design and implementation of a new Outage Management System ("OMS")), with a soft launch on April 1, 2022. Training and optimization of OMS functionality continues as the team prepares to embark on Phase 2 (the design and implementation of the Distribution Management System ("DMS")). Phase 2 focuses on enabling Switch Order Management, Outage Analytics, and Load and Fault Analysis.

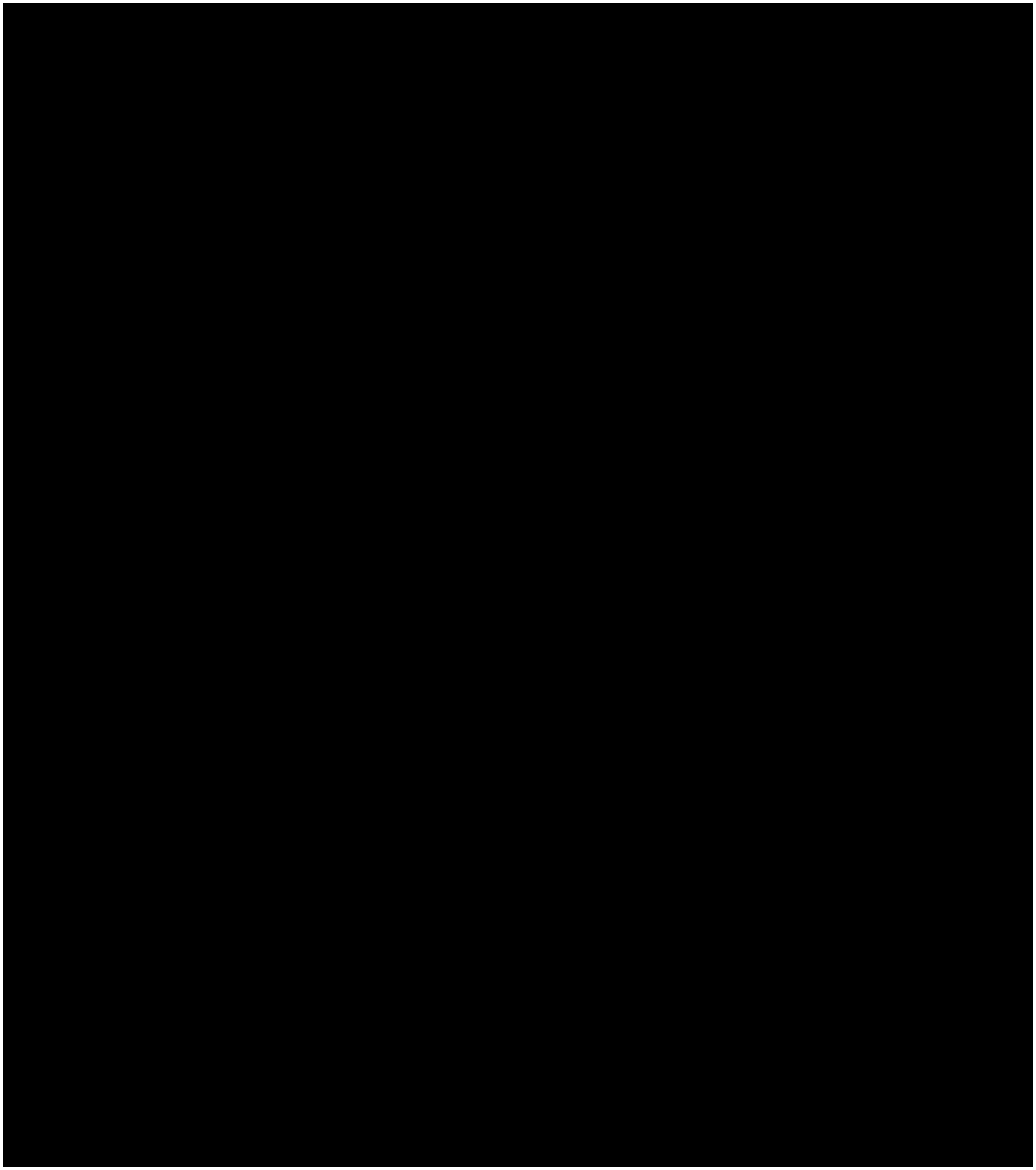
`Whitby Smart Grid, North Brooklin ICM Application and OEB Sandbox

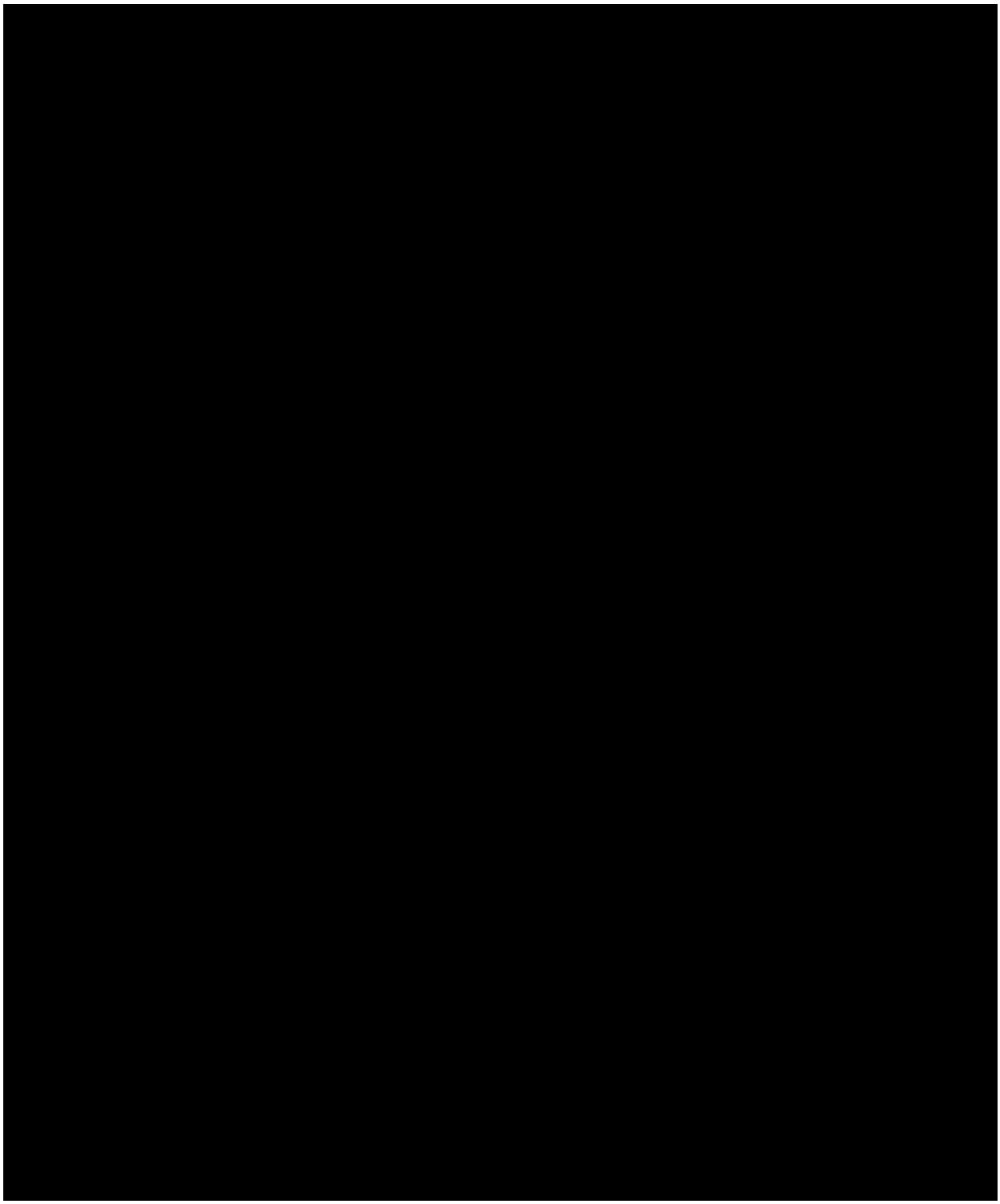
Management has been in discussions with the Brooklin Landowners Group Inc. ("BLGI") regarding the extension of its infrastructure from Whitby Transformer Station to a demarcation point in Whitby that is on Ashburn Road north of Columbus Road West (the "Extension"). BLGI has requested that Elexicon seek an exemption from the Distribution System Code ("DSC") requirement that BLGI pay for the cost of the Extension, which is estimated to be approximately $28M.

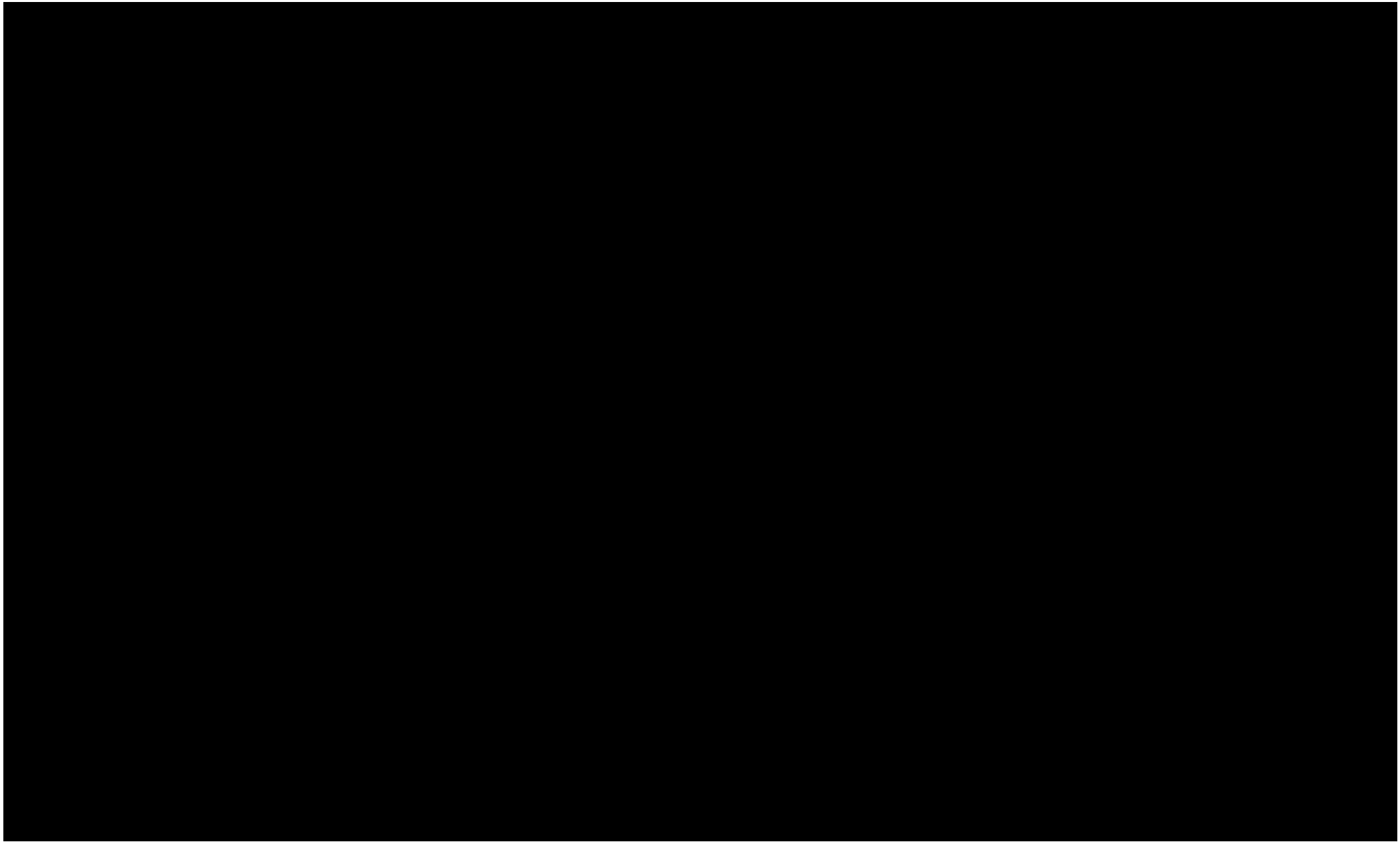
With the support of BLGI, Elexicon is exploring an innovative approach to meeting the electricity supply needs in the Whitby, Ajax and Pickering service areas over the next 20 years: the Whitby Smart Grid and Sustainable Brooklin (the "Projects"). The Projects will invest capital in grid modernization technologies throughout Whitby (approximately $50M over 2.5 years), provide BLGI with a DSC-exempt Extension (approximately $28M), and have BLGI build Distributed Energy Resource (DER) 'roughed-in' homes as a first tranche of the Whitby Smart Grid (estimated at approximately $2,000 investment per home).

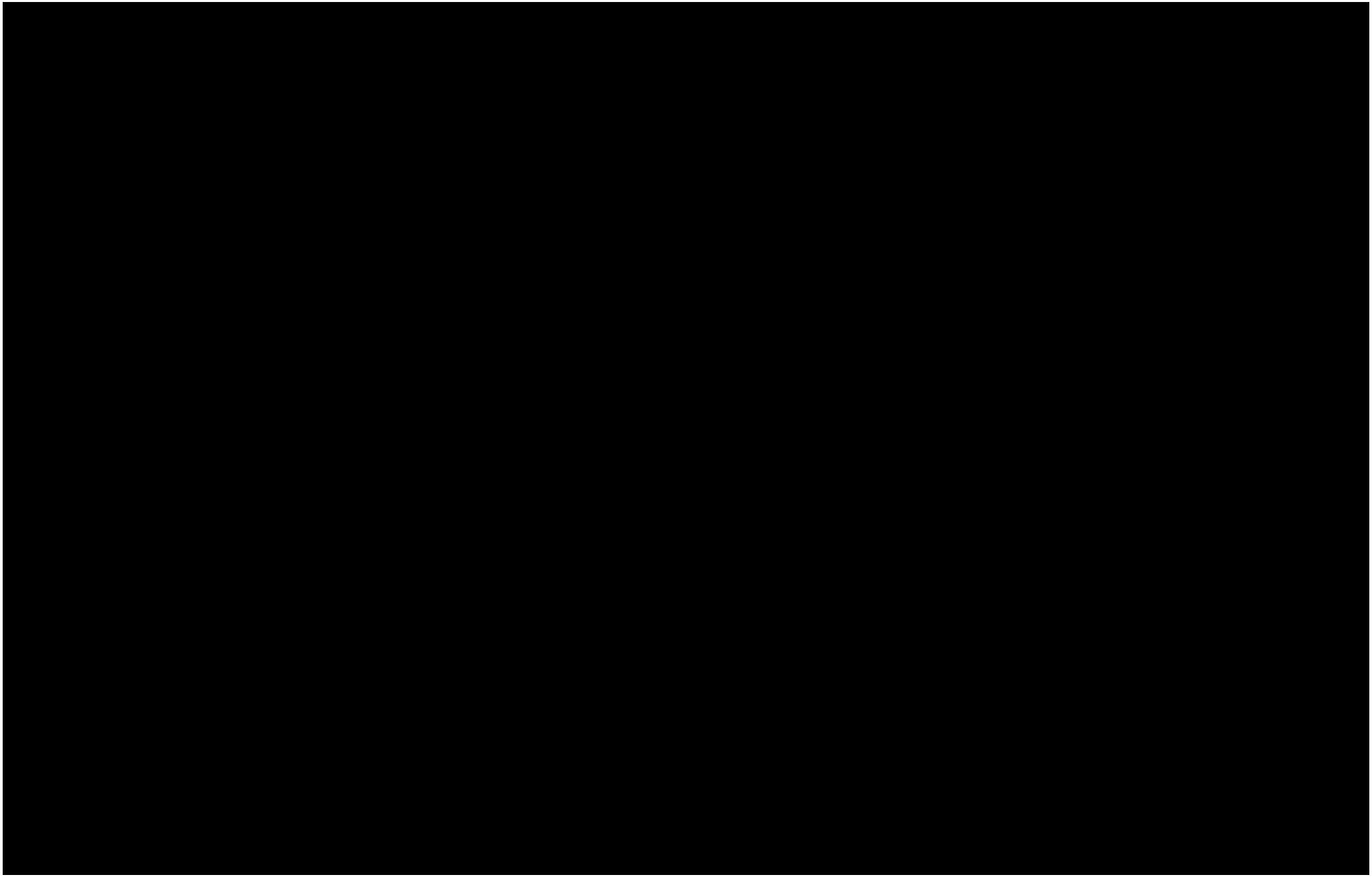
In this context, Elexicon is preparing a proposal to submit to the OEB's Innovation Sandbox, an OEB management group whose sole purpose is to engage in informal discussions with its regulated entities to explore innovative energy solutions. This proposal would involve modernizing the grid in the Whitby Hydro service area to accommodate high levels of DER integration. The Projects would involve the integration of voltage optimization ("VVO"), switched capacitor banks, fault location isolation and service restoration ("FLISR"), and communicating faulted circuit indicators ("CFCI"). It would also allow the creation of a local (distribution level) energy and capacity market to create financial incentives for cost effective DER integration. In return, BLGI will ensure that the homes in north Brooklin are all built with standard rough-ins for rooftop solar, battery storage and EV charging – equipping customers with a cost effective option to participate in the DER market if desired.

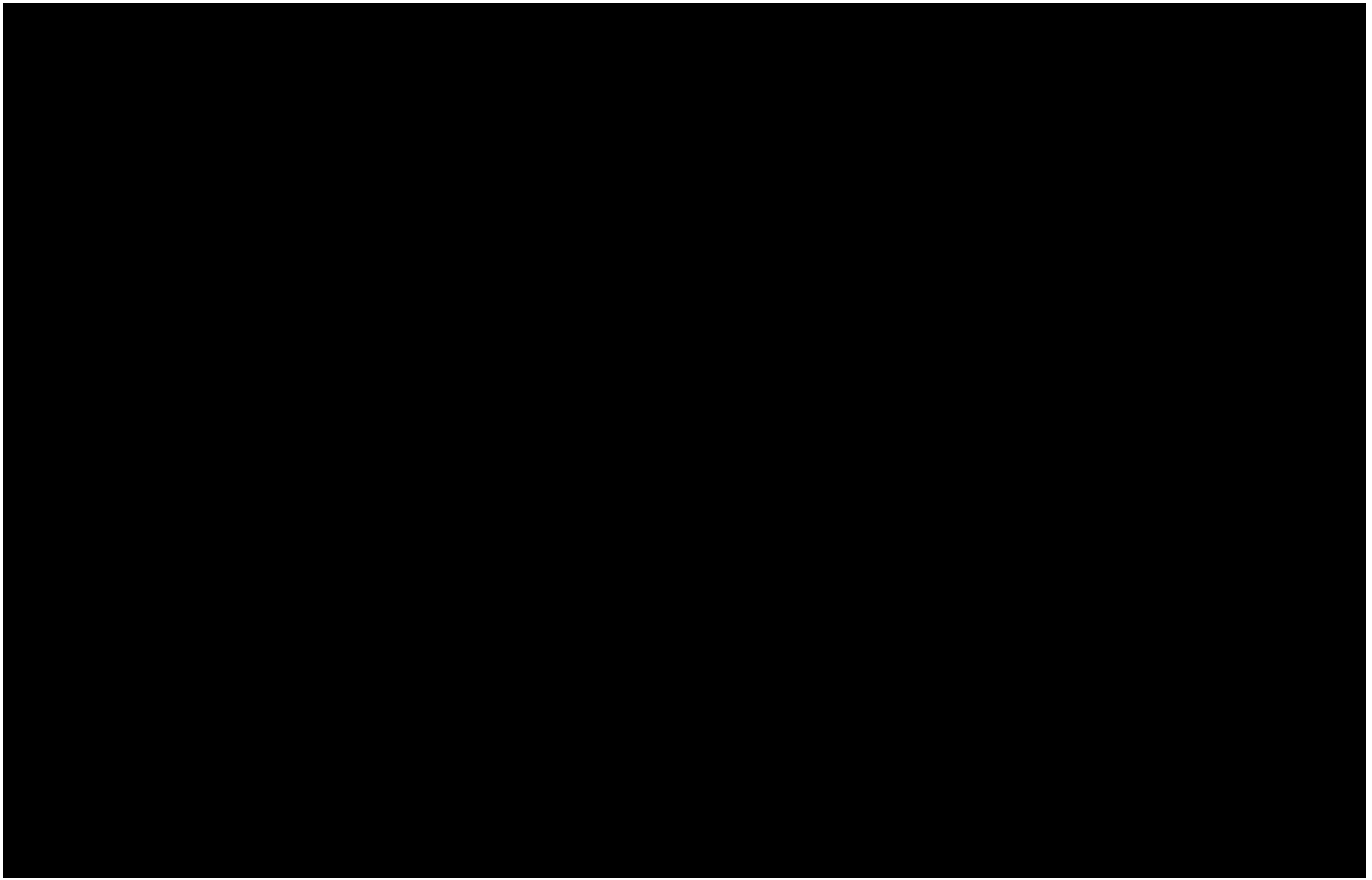
If the proposal receives OEB approval for Incremental Capital Module ("ICM") funding, a rate rider would be applied for the Whitby Rate Zone until the next rebasing. In the absence of ICM approval, Elexicon would not proceed with the Projects and the BLGI would have to pay for the Extension.

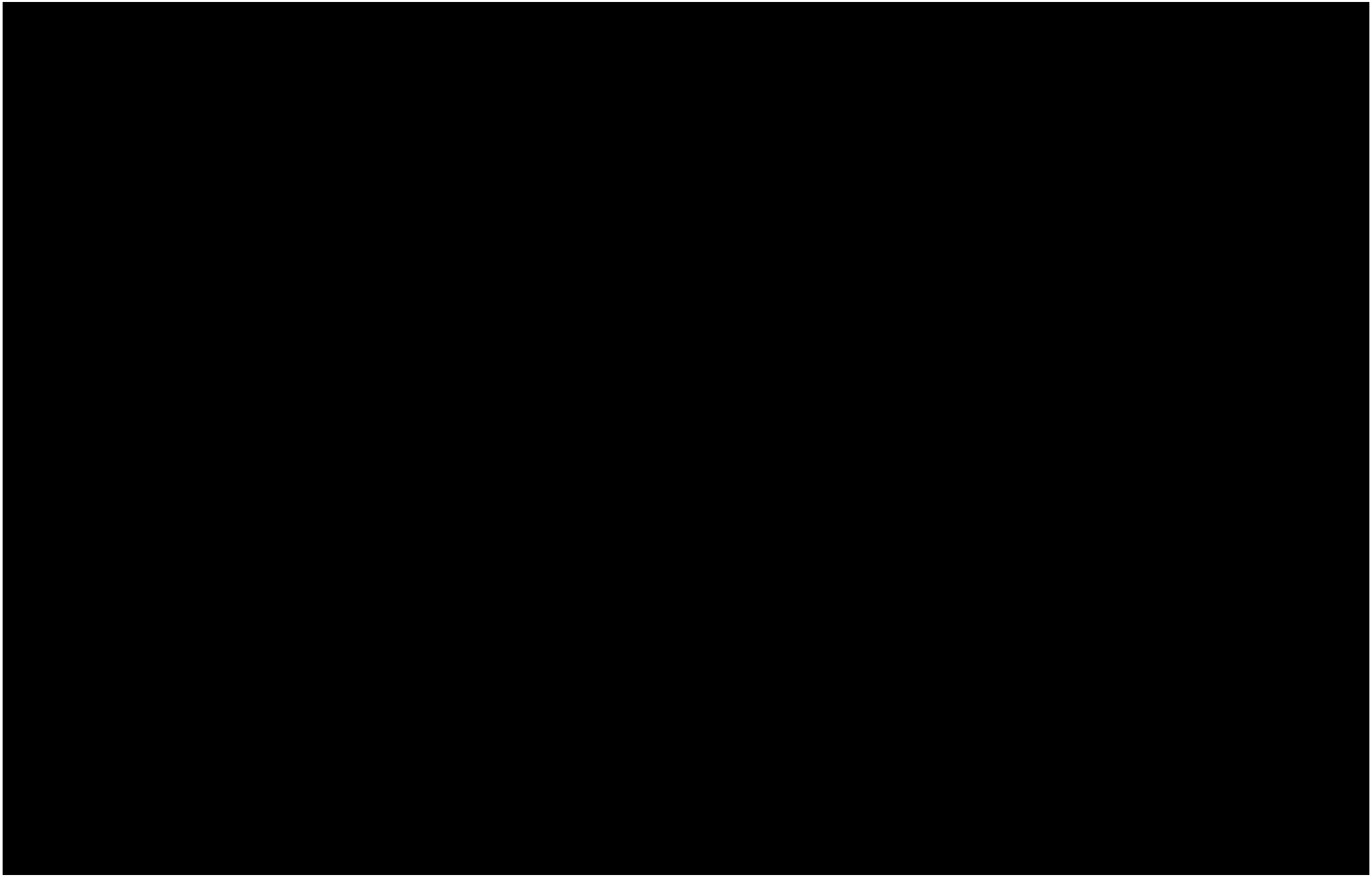


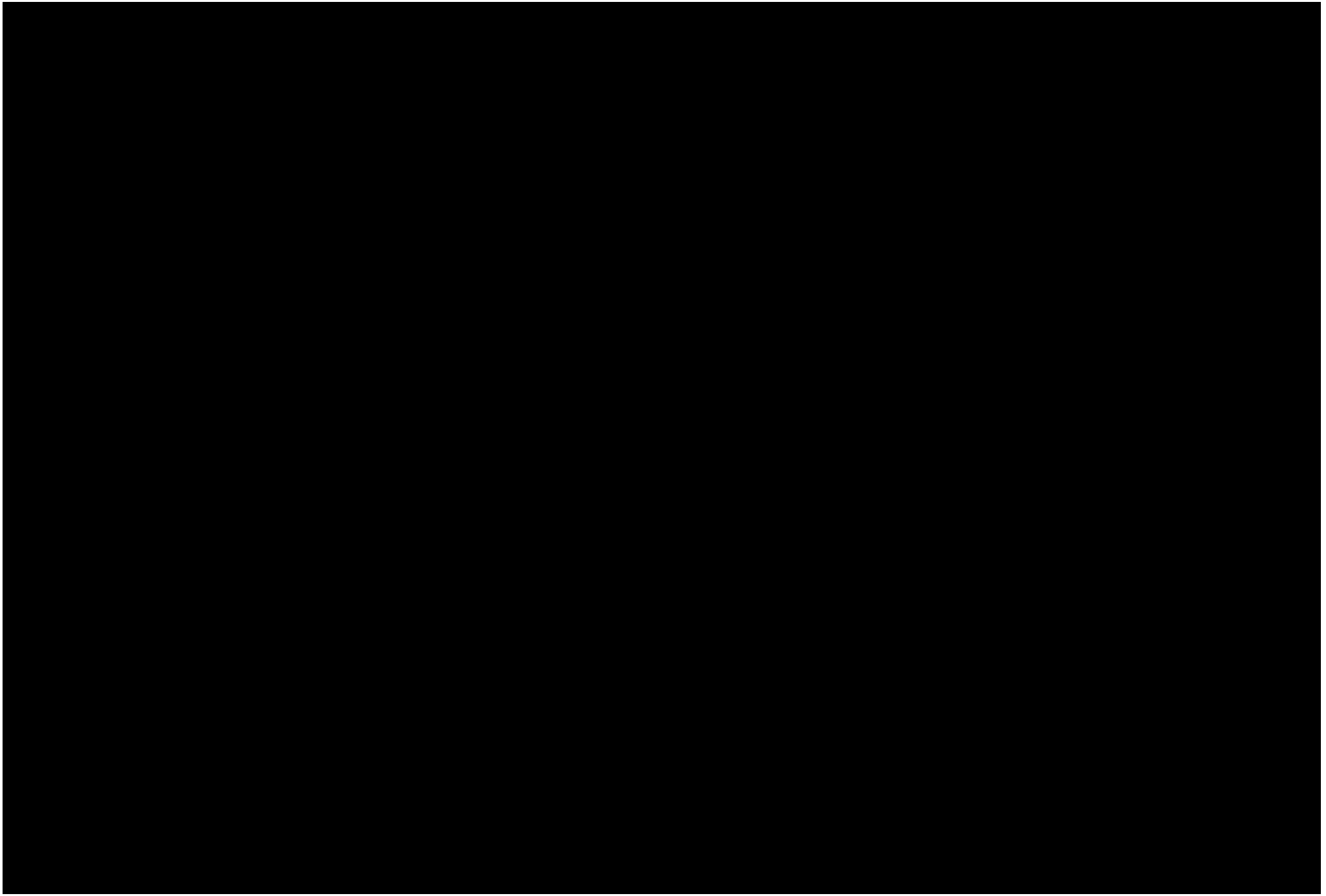












Attachment #2

Board Meeting

Date of Report	September 16, 2022
Submitted by	Indrani J. Butany-DeSouza, President & Chief Executive Officer
Subject	CEO Report
Meeting Date	September 27, 2022

Action Request:

☐ Recommend/Approve ☒ For Discussion ☐ For Information Only

[redacted]

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Reliability

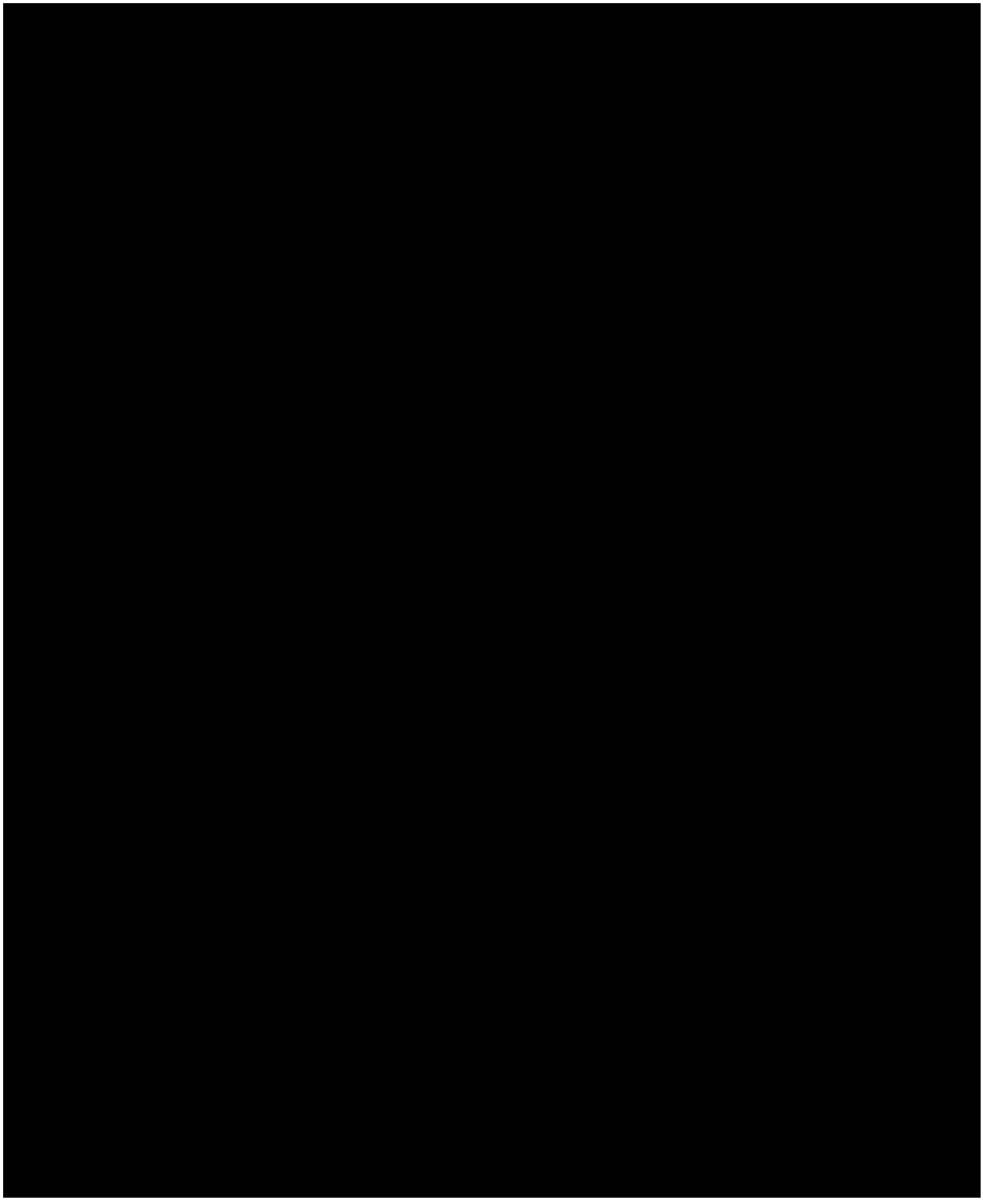
As of Q2 2022, SAIDI is 0.846 hours, which is trending slightly over target based on the three year average trend line. However, SAIFI is 0.533 outages, which is trending between target and stretch. The impact of adverse weather has had a significant contribution to the SAIDI metric resulting in customer interruption hours of 50,891 as of Q2, 2022. Other contributors include tree contact, defective equipment and unknown. Planning will be performing a data audit on unknown events to make sure the cause codes are correctly allocated. Any allocation of cause codes to Loss of Supply ("LoS") or customer hours reduction due to partial restorations will improve the SAIDI numbers.

On May 21, 2022, a significant thunderstorm (*derecho*) caused multiple outages that interrupted 95,305 customers, with the majority of those customers being in Pickering, Ajax, Whitby and Uxbridge. Based on a review of the timeline of events, approximately 68% of customers were restored within the first 24 hours. The remaining customers were restored over the next six days, leading Elexicon to declare the Level 3 outage over in the early evening hours of May 27th. After analysis, the event was classified as a Major Event Day ("MED").

On May 31, 2022, Sandy Beach Municipal Station in Pickering suffered a transformer (T2) failure and had to be taken out of service. A backup transformer was installed on July 21, 2022. However, a feeder recloser failed during re-energization, leading to a fire. Currently, the station is out of service, and an investigation is in progress.

Another MED occurred due to a severe thunderstorm in Belleville on June 16, 2022, that affected 22,549 customers and caused a loss of 102,864 customer hours. In addition, the event resulted in the downing of many trees that hindered restoration efforts. Full restoration of all customers took 25 hours to complete.

[redacted]



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Ministry of Energy

With the Ontario legislature now back to work following the provincial election, Elexicon continues to build strong relations with both the Minister of Energy and Ministry teams. On August 15th, a meeting was held with the Minister's Deputy Chief of Staff to discuss Elexicon's request for ICM funding for two projects: Whitby Smart Grid and Sustainable Brooklin. Discussions were positive and also included a discussion on Elexicon's interest in bidding for the OEB's non-RPP Class B Dynamic Pricing Pilot.

[redacted]

[redacted]

Business Continuity Plan

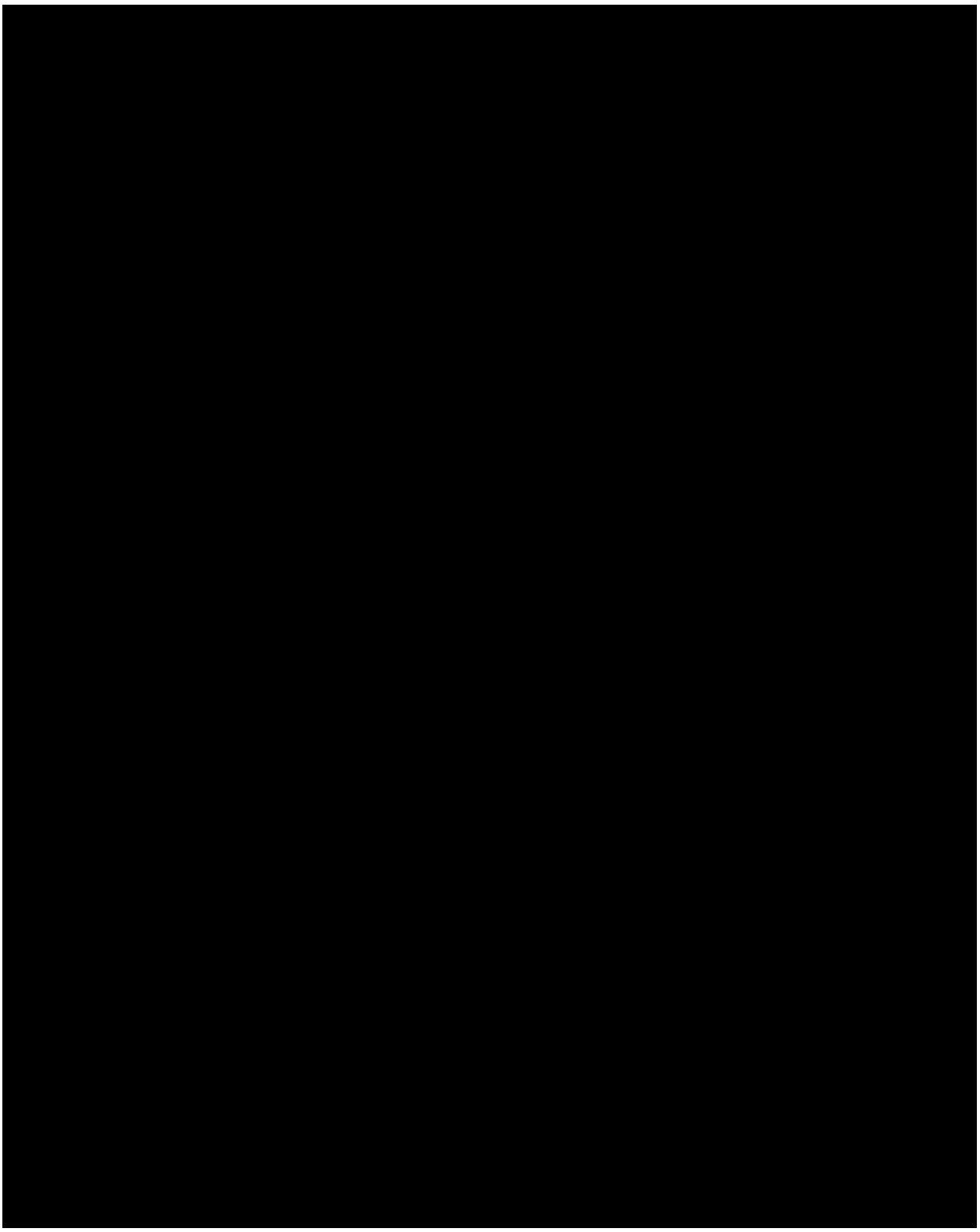
The work to refresh the Business Continuity Plan ("BCP") was completed in December 2020. In 2021, Management executed quarterly drills to test the completeness and usefulness of the BCP. These exercises tested the Recovery Time Objectives of Elexicon's critical business functions, and the use of the Virtual Incident Command Centre to facilitate efficient, remote communications.

Training and refresher exercises continue in 2022; recovery team alternates were introduced through a simulated major event in March 2022. Another Level 3 power restoration simulation was planned to be held in Q4, however in light of the real Level 3 event occurred as a result of the May 21, 2022 derecho storm, staff will focus their efforts on incorporating the lessons learned and recommendations for improvement from that event into a refreshed version of the Power Restoration Plan, and Elexicon's overarching BCP. A detailed post-mortem on Elexicon's power restoration efforts from the May 21st is available as part of the Board's September meeting package

As part of Elexicon's cybersecurity plans and consistent with Internal Audit, a tabletop exercise is scheduled with the with the Executive Leadership Team ("ELT") and the Information Technology ("IT") team for Q4 that will test other areas of the BCP as described further in Item H.1 of the agenda. This will keep the plan fresh and improve organizational readiness and response in the event of a real emergency.

A more detailed update elaborating on the training exercises continued and improvements to the BCP is available in the Information Section of the Audit, Finance and Risk Management ("AFRM") Committee Meeting agenda materials, held on September 26, 2022.

[redacted]



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Advanced Distribution Management System ("ADMS") Project

On April 1, 2022 the ADMS Project completed the soft launch of Phase 1 - the design and implementation of a new Outage Management System ("OMS"). The OMS is in-service however is not fully operational due to a critical safety defect. The defect fix (addressed by a version upgrade) is expected in Q4 2022 from Hitachi/ABB. This will be followed by an iterative QA/QC process and a training refresher. As a result, the operational go-live for the OMS is targeted for Q2 2023. Training and optimization of OMS functionality will continue as the team begins on Phase 2 - the design and implementation of the Distribution Management System ("DMS"). Phase 2 introduces new functionality to Elexicon that would enable operations with real-time data for improved operational planning and optimization.

[redacted]

[redacted]

Other Business:

- **Presentation to Whitby Council of the Incremental Rate Application with the Ontario Energy Board**

Following a request by the Mayor of Whitby, on July 11, 2022, Elexicon made a presentation to Whitby Council (the "Council") to get support for the Incremental Rate Application ("ICM") application to the Ontario Energy Board ("OEB") for the Whitby Smart Grid and Sustainable Brooklin projects. The presentation was well received, and Council endorsed the ICM application to the OEB.

[redacted]

Appendices:

1. Presentation to Whitby Council of the Incremental Rate Application with the Ontario Energy Board

Attachment 1

ICM Application Update:
Whitby Smart Grid & Sustainable Brooklin

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ICM Application: Vision & Scope

- Project is first step in implementation of **Elexicon's Grid of the Future**
  - **Enable Net-Zero homes & implement base elements to support climate change goals**
- Implementing known and available innovation technologies with well understood customer and system benefits to support Grid of the Future
- **Whitby Smart Grid**:
  - Volt-VAR Optimization (VVO), Fault Monitoring and Distribution Automation (FLISR), Advanced Distribution Management System (ADMS)
- **Sustainable Brooklin:**
  - **Approximately 10,000 new homes over 20 years in North Brooklin encouraged to adopt DERs** as 1st tranche of Whitby Smart Grid
  - Developer group committing ~$2,260 per home to rough-in homes for Distributed Energy Resources (DERs) and EV adoption
  - **Seek OEB approval of exemption from developer group capital contributions** relating to the $26 million cost to build extension of grid to North Brooklin (specifically, exemption applicable to Section 3.2 of Distribution System Code (DSC))
- Long term establishment of Local Electricity Market

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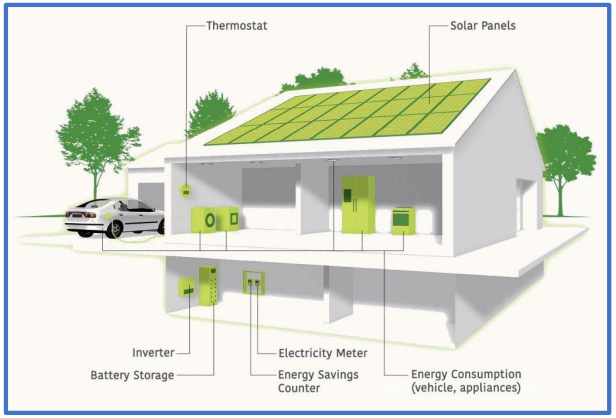
ICM Application: Whitby Smart Grid

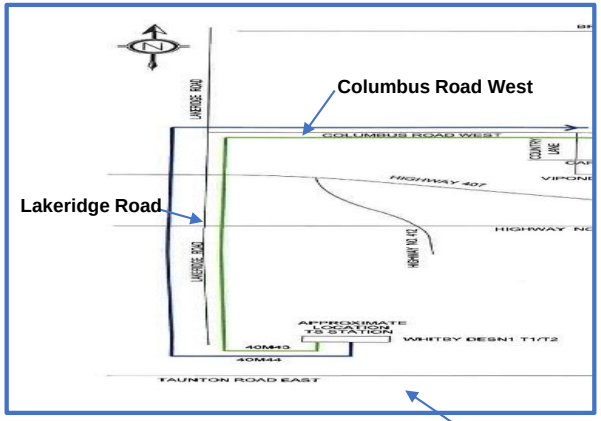
- Benefits
  - VVO can be operated to drive energy/capacity conservation benefits across distribution system
    - **Approx. ~2% to 5% - help to reduce all ratepayers' total bill**
    - Reduce Greenhouse Gas (GHG) reductions through energy conservations – Net-Zero
  - FLISR will improve system reliability
    - Helps Elexicon identify issues (e.g., outages, tree contacts) more quickly
    - **Allows Elexicon to respond to issues more efficiently** (e.g., by isolating the affected segment of line & rapidly restoring power to all other customers)
  - ADMS
    - This is the "brains" – the control hardware and software that Elexicon uses to deliver benefits from VVO and FLISR
- Modelled on the OEB approved Sault Ste. Marie Smart Grid project https://saultstemarie.ca/Newsroom/May-2021/Smart-Grid.aspx

ICM Application: Sustainable Brooklin

Developers pay for DER rough-ins:



In return, Whitby ratepayers would pay for "Extension Cord":



- Grid extension to North Brooklin cost ~ $26.3M
- Developer commitment (EV & solar, batteries rough ins) ~$19.9M - $30M
  - Cost varies based on rough-in cost of just over $2K per, times # of units
  - Cost varies based on impact of inflation on current cost estimates

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ICM Application: Project Financials*

Project	Asset Grouping	Cost Estimate ($ Million) (Class 5)	Estimated Total Bill Increase ($/month)
Whitby Smart Grid	VVO (CVR System)	$16.2	$2.59
	FLISR (& CFCI)	$16.0	
	ADMS (NRCan 50% funded)**	$4.0	
	Project Support Costs	$7.4	
	Sub-Total	$43.6	
Sustainable Brooklin	Extension of Grid to North Brooklin	$26.3	$2.60
	Total	$79.9	$5.19

Notes: (Estimates as of June 15, 2022)
***: Costs net of benefits to be recovered from Whitby ratepayers**
****: NRCan funding $4.0 million of $8.0 million project budget**

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ICM Application: Bill Impacts

- Estimate average Whitby customer's total bill is approx. $126/month
- Normal OEB formulaic inflationary increase anticipated to increase rates by $3.83/month in 2023
- Incremental Capital Module (ICM) increases are in addition, and vary based on scope and conservation assumptions*:
  - Sustainable Brooklin + Whitby Smart Grid** ~ $5.19 / month
  - Whitby Smart Grid (Full scope)** ~ $2.59 / month
  - **Whitby Smart Grid (No FLISR)** ~ $0.39 / month**
- Opportunity to further reduce bill impacts by getting more federal funding from NRCan will be pursued under all scenarios

Notes:
***: Conservation assumptions still being modelled and finalized as of June 15, 2022**
****: Conservation assumption of 2.5% savings used for Sustainable Brooklin + Whitby Smart Grid, Whitby Smart Grid (Full Scope), and 3.0% savings used in calculation of Whitby Smart Grid (No FLISR)**

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ICM Application: Summary

- **Elexicon Grid of the Future**:
  - Implement plans and technologies to address 2040 climate change goals, and enable transformation for customer adoption of DERs and construction of Net-Zero homes
- **Whitby Smart Grid**:
  - Technologies of VVO, FLISR and ADMS are proven, verifiable and have been implemented in multiple North American jurisdictions
  - Chosen technologies will deliver benefits (i.e., savings) that have being accepted by multiple North American energy regulators
- **Sustainable Brooklin**
  - Cost consequence of capital contribution exemption is substantially matched by developer contributions to rough-in new homes for DERs
  - “Extension cord” is the most cost effective solution to bring new capacity to North Brooklin
  - Alternative of building a Transformer Station does not address transformational environment (i.e., addressing climate change) and is not in IESO or Hydro One Regional planning outlook