

**EXHIBIT 2B - TAB 4 - SCHEDULE 3: APPENDIX D-1
AMI 2.0 BUSINESS CASE**

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Elexicon Energy Advanced Metering Infra- structure (AMI) 2.0 Founda- tion Business Case

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1. ABOUT THIS BUSINESS CASE

This document builds on an earlier version of the AMI 2.0 evidence included in Elexicon's 2027-2031 Distribution System Plan (DSP). Compared to the earlier vintage, this business case reflects considerable progress in the company's thinking on system migration logistics and core solution delivery options. It also features an in-depth asset lifecycle analysis across multiple deployment scenarios and their durations. The result is a more mature plan of action that sets Elexicon up for the preparatory activities ahead of the recommended commercial vendor procurement process, which will confirm the proponent, scope specifics, and final cost estimate.

We expressed the latest cost estimate appearing in this document as a range – to underscore the impact of remaining solutions scope and design decisions, and the bottom-up precision of technology and meter installation vendors' quotes that can take shape only in a formal commercial procurement setting, when migration path and deployment sequencing assumptions are strictly defined, and unit prices reflect the latest market conditions. While further scope and budgetary estimation work lies ahead, this business case moves Elexicon considerably closer to active implementation phase. It does so in four ways:

- *Supporting* (from both lifecycle management and operational congruence perspectives) the need to commence a comprehensive AMI renewal program in the current rate period, and to limit the overall deployment timeline to no more than eight years.
- *Articulating* the most technically and procedurally complex decision points, implementation trade-offs, and their cost implications, within and across the three scenarios of migrating to a single-vendor AMI 2.0 platform.
- *Defining* the range of future design decisions that the proposed foundational AMI 2.0 solution will support, while setting clear boundaries between the current scope and future state analytical and operating capabilities to be defined in incremental business cases.
- *Outlining* a set of specific next steps ahead of the recommended technology and installation vendor procurement process, which are designed to yield maximum solution clarity, procedural efficiency, and transparency of assumptions and expectations.

The cost, customer growth trajectory, and broader economic parameter estimates used in this case are based on the latest publicly obtainable information available to Elexicon as of June of 2026. While developing this document, Elexicon also consulted with three distributors who are currently implementing their AMI 2.0 solutions, to validate key technical and logistical assumptions and test the directional magnitude of our financial estimates without violating the confidentiality between those distributors and their vendors.

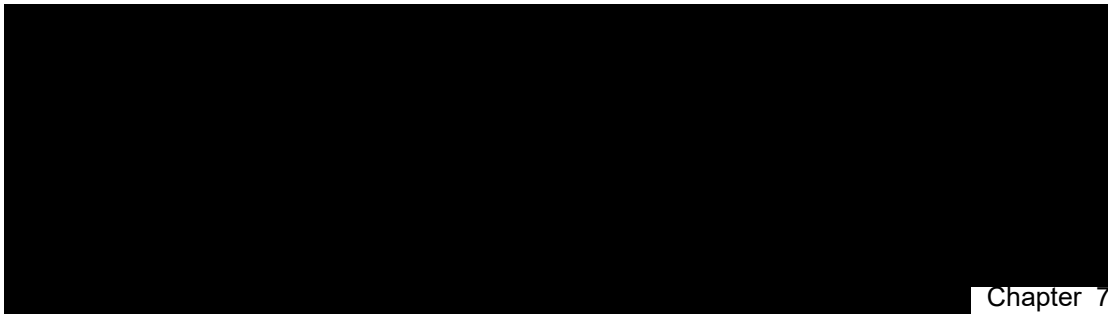
2. EXECUTIVE SUMMARY

Overview

The fleet of first-generation Advanced Metering Infrastructure (“AMI”) meters deployed across Elexicon Energy Inc.’s (“Elexicon”) service territory is substantially at the end of its useful life and requires a paced and structured multi-year replacement commencing in the 2027-2031 rate period. This document articulates the rationale for a focused and decisive action towards comprehensive and paced replacement of the current fleet and migration to a modern single-vendor solution stack that will also position Elexicon to gradually expand its digital grid management capabilities. In addition to substantiating the reasons for near-term action, this business case explores in detail the lifecycle and deployment capital cost implications of four scenarios for moving forward:

- one scenario involving indefinite continuation of reactive replacements, the do-nothing scenario,
- two scenarios contemplating AMI renewal using the latest technology of either legacy vendor, and
- the final scenario is exploring renewal using a net new vendor’s solution.

The lifecycle analysis is based on the current vendor model populations and vintages, Elexicon’s understanding of the baseline capital and OM&A costs supporting each contemplated solution, and our research into the compatibility requirements between the existing meter and comms device models, and newer offerings from the same vendors. In the scenarios involving incumbent vendors we use their latest cost estimates for residential and commercial meters, network devices, solution licensing and other components, and apply these to the status quo of vintages and manufacturers currently deployed in the field.



Chapter 7 discusses the recommendations for the RFP and pre-RFP specifics, while Chapter 8 lays out the risks and the approach to managing them. Chapter 6 of the business case also explores alternative deployment timelines for the two preferred scenarios and recommends that deployment occur over a period no longer than eight years.

Why AMI renewal should commence without delay

The median age of Ellexicon's AMI meter population today is 15.9 years¹, which is firmly within the industry consensus end-of-life range of 15 to 20 years for all major vendor technologies.² Compounding Ellexicon's demographic challenge is the fact that its metering fleet consists of two legacy AMI solution stacks deployed by pre-merger predecessors. Each vendor's sub-population median and mode ages fall within the industry consensus end-of-life expectations range and feature a large concentration of assets deployed in the same year. Today, 72% of Sensus meters are in their 15th year of operation or beyond, while this figure is 68.7% for Elster (Honeywell) meters. It is imperative for Ellexicon to define a single vendor future state path before large concentrations of aged meters or specific vintage peaks (see Figures 4 and 5 below) begin showing even more concerning failure rates. Such an event would force Ellexicon to replace them with the best available compatible meter – thus prolonging the two-vendor status quo further.

The failure rate experienced in the field to date is trending upwards, and progressing in accordance with Ellexicon's forecasts, as evidenced by the fact that its 2025 year-end failures forecast (1,100) included in the last version of this business case matched the actual 2025 year-end failure figure exactly.³ This finding, along with experience of other Ontario distributors that have tracked meter failures for a longer time than Ellexicon,⁴ supports the expectation that the currently accelerating failure trend will continue over the coming years as the assets continue to age. As further explained in this business case, long-term reliance on a run-to-fail replacement strategy and indefinite continuation of a two-vendor status quo is not sustainable practically and runs counter to Ellexicon's post-vendor integration objectives. While Ellexicon modelled the lifecycle cost of this "Do Nothing" scenario, it relies on assumptions that are not based on significant amount of actual historical failure experience, since first-generation AMI meters are only now approaching end of life across North America.

Additional drivers for action: process efficiency, risk management, and services evolution and harmonization

Aside from the hardware lifecycle management considerations, the coexistence of two legacy AMI solution stacks that approach obsolescence, share no common hardware or software elements, and use distinct synchronization and verification processes increases the overall risk exposure of Ellexicon's meter-to-cash activities from process efficiency, cyber security, and compliance management perspectives. While the financial efficiencies from eventual vendor consolidation cannot be confirmed until after the conclusion of competitive procurement

¹ We note that the earlier version of this AMI business case stated that 83% of the current meter population is older than 15 years. The discrepancy between the earlier number and the current number stems from the legacy records from some of the earlier pre-merger deployments – where in some cases only purchase records or only actual deployment records are available to calculate meter vintage. Given these discrepancies, Ellexicon chose to go with a more conservative assumption (i.e. lower meter ages) to stress-test its lifecycle analysis findings against a more stringent standard.

² For example, utilities cited in Blunomy, "Smart Meter Replacements Benchmark Study: International Comparators for failure information and replacement drivers and strategies for the first wave of smart meters" January 2025, accessed at <https://www.aer.gov.au/system/files/2025-02/UE%20ATT%2012.03%20-%20Blunomy%20-%20Smart%20meters%20replacement%20benchmark%20study%20-%20Jan2025%20-%20Public.pdf> June 2026

³ The forecast in the previous version was based on the actual failure data through the first quarter of 2025.

⁴ For example, Alectra's AMI 2.0 business case includes failures from 2018-2024 while Ellexicon is only tracking AMI failures since midway through 2021.

activities, delaying their attainment is another negative side effect of protracting the status quo any further than necessary.

Further affecting the near-term efficiency of the company's AMI operations are Measurement Canada's compliance requirements for verification of expiring meter seals. While seal verification permits Elexicon to keep legacy meters in service for longer, passing the sampling test offers no guarantees for the duration of life extension, despite the significant cost and logistical complexity of the meter sampling work. We incorporate the cost of continued Measurement Canada seal verification sampling into our lifecycle analysis scenarios.

Decisive action towards meter replacement that targets a modern, single-vendor AMI future state is also supported by the current pace of customer growth across Elexicon's service territory. As it continues to add new customers, deploying two different AMI technologies for new connections and reactive replacements in different parts of its service territory pushes further back the timeline for customer experience harmonization, and complicates the future planning of advanced grid management use cases that the second-generation AMI technology can enable.

While this business case does not factor in the costs or benefits of the new AMI system's downstream integrations with other enterprise solutions like the Advanced Distribution management System (ADMS) or other operational technology platforms, or cost of additional AMI application licenses that support distribution grid management and grid edge analytics use cases, the longer it takes Elexicon to commence deploying a modern solution – the longer these incremental use cases will remain hypothetical. Instead, if the deployment of meters that support AMI 2.0 capabilities begins in the 2027-2031 rate period as recommended, deployment start will broadly coincide with the expected completion of Dx NEXT ERP project, and the solution's subsequent stabilization and integration into operations. Since the full benefit of AMI 2.0 functionalities across the scenarios are not expected to be available until several years from the time meter deployment commences, the Information and Operations Technology (IT / OT), Planning, Asset Management, and Customer Care teams will be given an opportunity to explore the use cases for more advanced grid management solutions, including the costs and benefits of incremental solution interfaces, their configurations and the modes of insights delivery (e.g. via native AMI apps or through in-house analytics in own data lake).

Across the above considerations, this iteration of the business case lays out a detailed justification for action without delay and rejection of the "Do Nothing" scenario, while accounting for demographic, operational, financial and strategic factors. It then explores four scenarios for action using lifecycle cost analysis that differentiates scenarios according to demographics (types, ages, and forward compatibility) of meters that must be replaced according to a given scenario, and on assessed scope and complexity of the solution design, development, implementation and testing work, and other parameters that may vary in complexity across different scenarios. While the scope of this business case excludes any incremental integrations and licensing costs associated with operational / grid management use cases, we lay out the rationale for these exclusions and provide support to our expectations that even the foundational design features of the AMI 2.0 meters and HES will be capable of enabling a wide variety of potential use cases – each of which should be evaluated on their specific cost and benefit considerations.

Scenario Analysis and the Ensuing Recommendations

Across the lifecycle and deployment period capital cost financial analysis,

While the Third Vendor deployment option consistently produced inferior cost results on both lifecycle cost and deployment period capital cost dimensions, CRA recommends that Elexicon nevertheless carry out competitive

procurement process including both incumbents and any interested new vendors, to capture the benefits of competitive procurement that may be available. In light of the operational and planning constraints described in Chapter 4, [REDACTED]

The business case recommends an eight-year deployment period as a compromise between deployment logistics compression, higher rate impact, and higher sacrificed life under the five-year scenario, and the risks of in-population version consistency issues and delay of addressing the aging population under the 10-year scenario. As discussed in Chapter 6, these technical and logistical considerations drove the ultimate selection given the relatively tight spread of the cost outcomes calculated on the NPV basis and the intuitive gradual increase of nominal costs calculated on the capital deployment basis.

Updated Cost Estimate

Based on the enhanced bottom-up estimation rigour, validated through spot consultations with peer utilities and a meter installation vendor (all of whom were able to comment on Elexicon's directional estimates rather than offer specific figures), the revised cost estimate for the AMI 2.0 foundation project as described in this business case is a range of [REDACTED], which reflects the modelled capital cost forecast range across the three vendor scenarios for an eight year deployment period. When compared to the earlier iteration of this business case, the higher estimates reflect the incorporation of detailed solution design, development, and testing cost categories, validation of meter installation costs, costs of meter storage and disposal, costs of professional services for a System Integrator and the Technology Vendor itself, cost of "Return to Utility" (RTU) failed deployment attempts, and other categories that comprise the planning best practices appropriate for incorporation at this more advanced phase of planning.

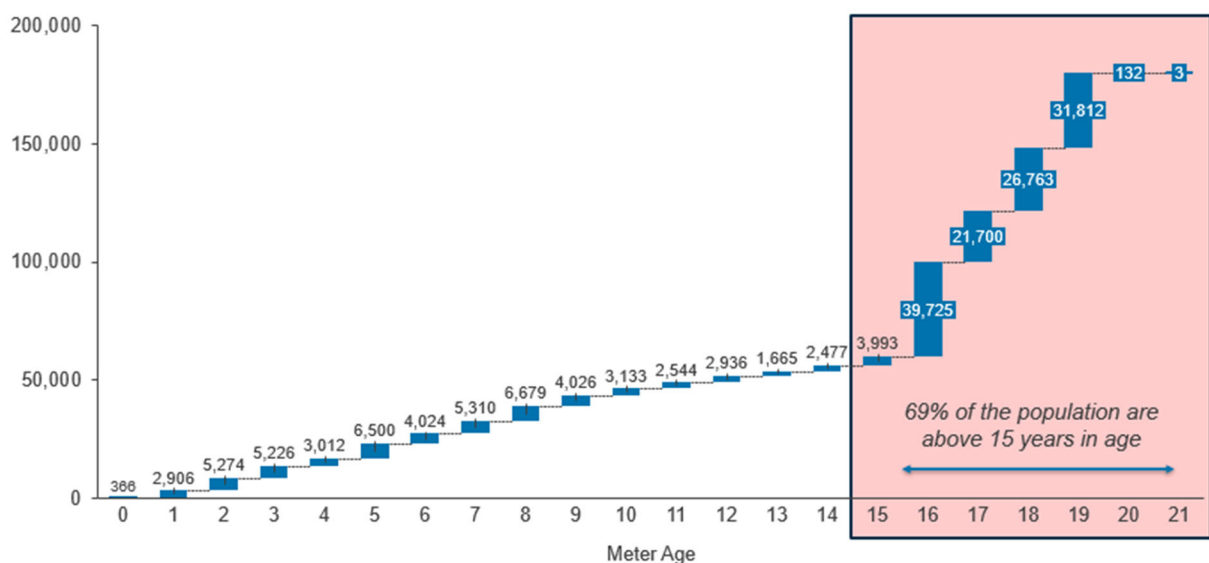
This document concludes with a set of practical recommendations to Elexicon for the subsequent steps associated with gathering of detailed application requirements and preparation for competitive procurement. These recommendations are based on CRA's technology research, experience from prior AMI projects, and interviews with peer utilities actively involved in AMI implementation projects today, applied to Elexicon's specific circumstances.

3. RATIONALE FOR ACTION

3.1. Primary Drivers for Intervention: Demographics and Failure Risk

Ellexicon's fleet of Advanced Metering Infrastructure (AMI) meters is at end of life and requires replacement in a paced and methodical manner – to reduce in service failure risks and the associated reactive costs, manage compliance and cyber security risks, and drive consistency of service and customer experience across the merged service territory. Like all Ontario distributors, Ellexicon's corporate predecessors Veridian Connections and Whitby Hydro deployed their original AMI meters between 2007 and 2009. Like its Ontario peers today, Ellexicon is now contending with a population of meters comprised largely of legacy models that have long been discontinued by vendors, exhibit increasing failure rates, and require costly and time-consuming Measurement Canada (MC) seal re-verifications that permit them to stay in service, but provide no guarantees of life extension.

Figure 1: Ellexicon AMI Metering Population Age Distribution as of 03/2026



3.1.1. Demographics

As Figure 1 shows, more than two-thirds (68.5%) of Ellexicon's current AMI meters have already exceeded the 15-year in-service timeframe, which is broadly seen as industry consensus for an average end-of-life threshold for AMI meters.⁵ Another 15% will have reached the 15-year threshold by the time of completion of the eight-year replacement program – which is the medium-length scenario of the three scenarios that this business case explores. Importantly,

⁵ For Example (a) Blunomy, 2025; (b) EEI Metering Ops Committee survey results cited in Pritchard, Glen (PECO) "Tracking Failure Curves and Considerations for AMI 2.0) presentation, July 2021, 2025. Accessed at <https://www.tescometering.com/wp-content/uploads/2025/06/PECO-Tracking-Failure-Curves-and-Considerations-for-AMI-20-Pritchard-072125-TesCOOL-2025-Deck-1.pdf>, (c) Exponent Consulting, "A Strategic Roadmap for Smart Meter Asset Management and Next Generation Deployment", April 21, 2026, <https://www.exponent.com/article/strategic-roadmap-smart-meter-asset-management-next-generation-deployment>

and as described in more detail later in this document, it is Elexicon's intent to utilize the remaining useful lives of as many currently installed meters that will be compatible with the to-be-selected single vendor's future-state network communications protocol as practicable.⁶

As Figure 2 showcases below, Elexicon's current meter population demographics match closely those of Ontario's other largest distributors that have also included AMI 2.0 deployment projects in their most recent distribution plans (DSP) and rate rebasing applications. For example, in its most recent DSP, Alectra reported that 75% of their AMI 1.0 meters would reach at least 15 years of age by the beginning of its proposed rollout period in 2025.⁷ Similarly, Hydro One anticipated increasing failures from an aging meter population in its 2022-2027 DSP, noting that 65% of the meter population was between 11-13 years old at the beginning of their proposed rollout period in 2022.⁸

Toronto Hydro's DSP estimated that approximately 70 percent of their residential and small commercial meters would have exceeded their expected useful life at the beginning of their proposed AMI 2.0 rollout in 2025.⁹ Finally, Hydro Ottawa similarly reported that 67% of its metering infrastructure had exceeded its useful life prior to the contemplated AMI 2.0 rollout.¹⁰ These figures from Elexicon's peer utilities confirm that the age distribution of its first-generation AMI fleet is well within the vintage range where the industry sees AMI 2.0 deployments as being appropriate to start. Considering that this business case recommends a paced, eight-year deployment commencing in earnest towards the latter part of the 2027-2031 planning period, Elexicon will have derived significant value from its original AMI investment, including the mid-lifecycle integration investments associated with creation of Elexicon.

⁶ Exceptions may involve unlikely scenarios of explicit customer requests for a newest meter model, or replacement of forward-compatible models if they have less than three years of useful life remaining.

⁷ Alectra Exhibit 2A Distribution System Plan Part 2 of 5, Alectra Utilities, 2025 (EB-2025-0252)
https://alectrautilities.com/sites/default/files/assets/pdf/OEB_file_regulatory_affairs/alectra_exhibit-2a_distribution-system-plan_part-2-of-5_redacted_20251014.pdf

⁸ Hydro One DSP 2022-2027,
https://www.hydroone.com/abouthydroone/RegulatoryInformation/JointRateApplications/Documents/HONI_Appl_Expbit%20B3_DSP_20210805.pdf

⁹ Toronto Hydro, Exhibit 2B(3)- 2025-2029 Distribution Plan,
https://www.rds.ontario.ca/CMWebDrawer/Record/823168/File/document?_gl=1*1moin9s*_gcl_au*MTk2OTQ1OTAxMS4xNzgyNzYxNzI1

¹⁰ Hydro Ottawa DSP 2026-2030, https://static.hydroottawa.com/documents/corporate/regulatory-affairs/2025/HOL_Exp%204_Operating%20Expenses_20250415.pdf,
<https://static.hydroottawa.com/documents/corporate/regulatory-affairs/2025/Distribution%20System%20Plan%20Overview.pdf>

Figure 2: Largest distributor's metering population above useful life at the time of proposing AMI 2.0 rollouts

CLD Member Metering Populations Prior to AMI 2.0 Rollouts

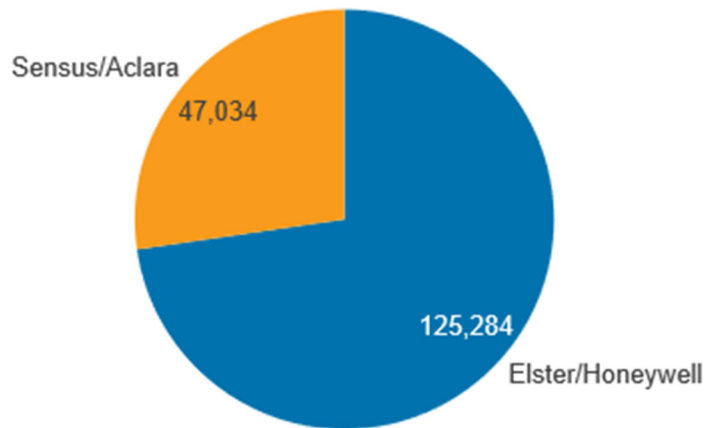


Further complicating the demographic profile of Ellexicon's first-generation AMI fleet is its makeup from two distinct solutions stacks that reflect the pre-merger predecessor boundaries. While Whitby Hydro's former service territory is served by a combined 47,000 residential meters produced and supported by Sensus advanced metering in the Veridian legacy service territory is performed with the Elster / Honeywell solution.¹¹ Aside from different metering and head end technologies, Honeywell and Sensus use completely different telecommunications protocols for collection of metering data and remote communication with the meters. Honeywell relies on a radiofrequency (RF) mesh network where network devices (often referred to as Gatekeepers) and meters form a dynamic mesh over which meter signal "hops" from / to the point of origin to the Head End System. This is a more typical AMI communications architecture that many other vendors use as well.

Sensus, on the other hand, sends and collects the signals to its AMI meters over a point-to-multipoint star-configured FlexNet telecom system where thousands of meters are programmed to communicate with a specific Base Station and a long-range 900 MHz radio antenna located in a secure physical setting like a distribution service centre or a station yard. Figure 3 shows the contribution from two vendor subpopulations to Ellexicon's overall AMI fleet. As discussed in more detail in the following section, the Honeywell and Sensus solution stacks are completely technologically distinct, provide no coverage redundancies, and share no common interfaces. While both systems are configured to communicate with Ellexicon's Savage Technologies Meter Data Management (MDM) System and the provincial MDM/R, the interfaces between the two solutions and the MDM are different and involve varying degrees of manual and automated processes respectively.

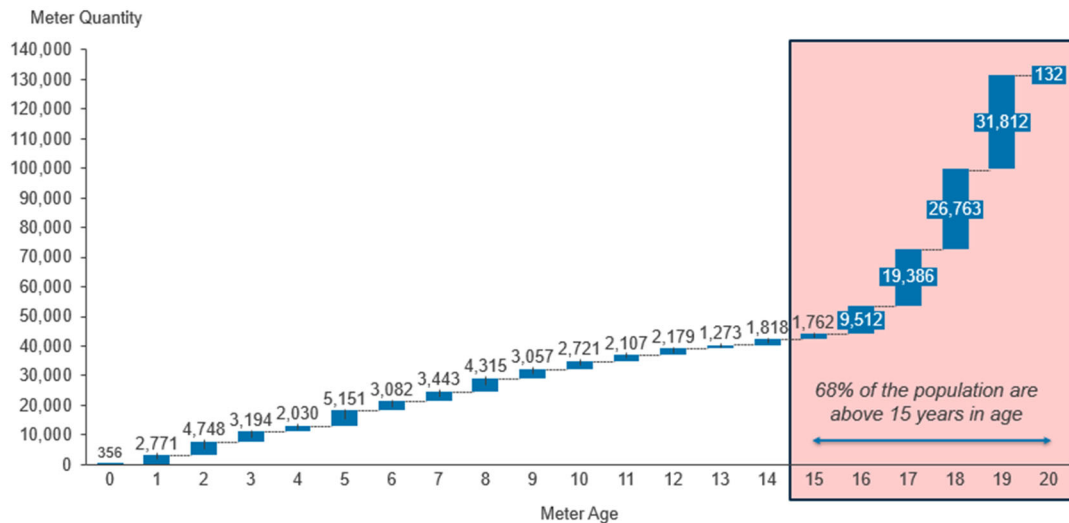
¹¹ Honeywell acquired Elster's metering business in 2015, but kept the brand name in active use

Figure 3: Ellexicon AMI Population by Vendor, 2026



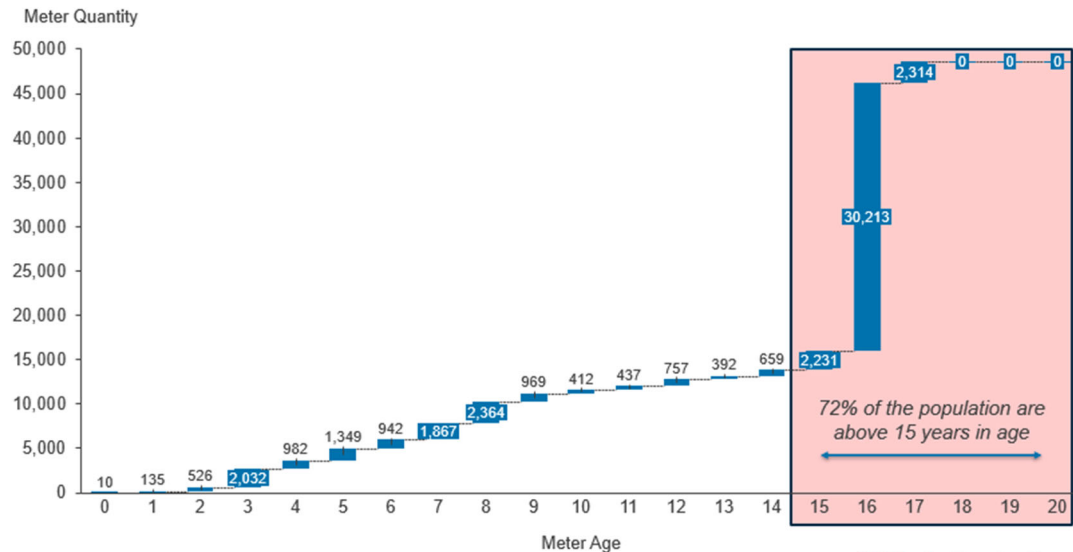
While both current vendors continue actively supporting and innovating in the general product lines, both sub-populations are made up of heavily aged units that are now out of production and out of manufacturers' extended warranty periods. Figure 4 and Figure 5 showcase the demographic breakdown within each subpopulation. The relative portions of meters over 15 years of age in both populations are similar – 68% for Honeywell and 72% for Sensus meters. Of particular concern are major aged single vintage “peak” age batches that correspond to the years of original installation. This phenomenon is especially pronounced for Sensus, where 75% of all Sensus meters installed are now 15 years or older.

Figure 4: Ellexicon Honeywell AMI Metering Population Age Distribution as of 03/2026



The age bow wave is somewhat more diffused for Honeywell, with three largest age 15+ vintages containing between 19,000 and 32,000 meters approximately. It is also likely that some of the older pre-merger vintage ages are understated, since early-year vintage records contain large numbers of records with the first day of a given year being noted as an install or purchase date.

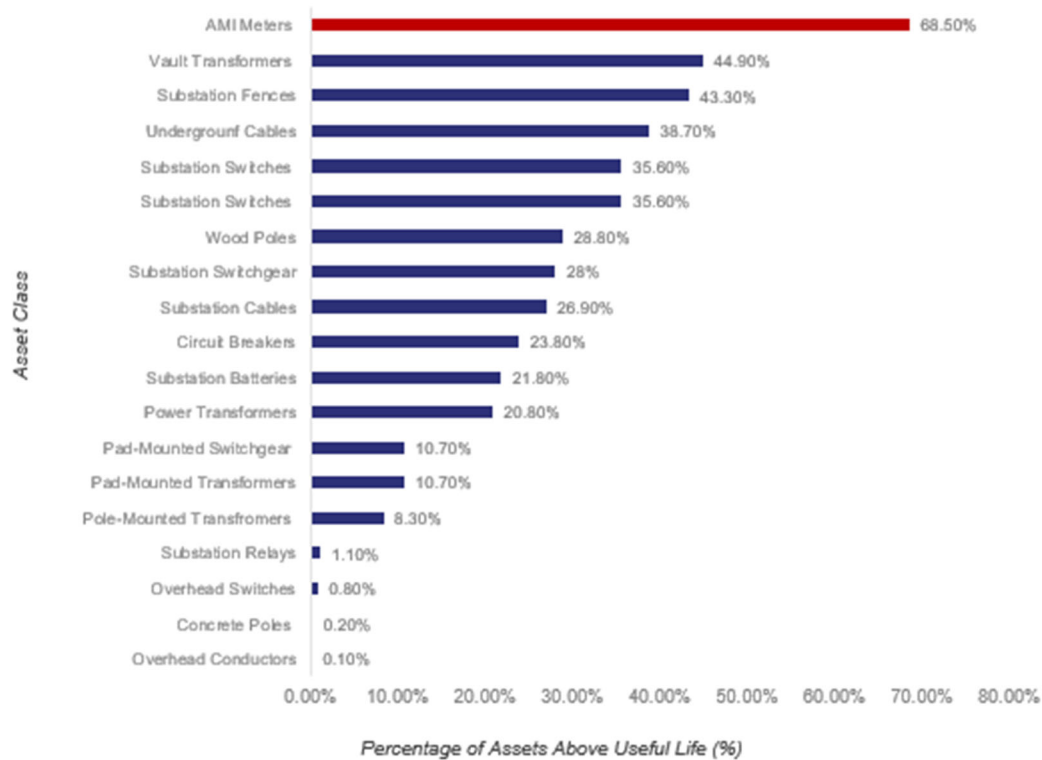
Figure 5: Elexicon Sensus AMI Metering Population Age Distribution as of 03/2026



Although Elexicon’s historical meter failure data tracking (pre-2021) practices do not permit it to firmly estimate the size of any historical failures or performance issues affecting a specific vintage from a specific vendor, the probability of such occurrences rises with age, while the impact of widespread issues within one or more of the peak vintage batches experienced in a reactive manner would contribute to the following undesirable operating consequences:

- Straining Elexicon’s operational and financial resources to accommodate increases in reactive truck roll volumes to investigate and rectify the problems,
- Requiring near-term reactive replacement with the best compatible meter of the same vendor – thus potentially prolonging the two-vendor status quo for years more
- Causing temporary gaps in the local RF mesh pockets (for Honeywell meters only) that could compromise read success for other meters,
- Driving customer dissatisfaction and putting at risk Elexicon’s Billing Accuracy measure compliance because of missing register reads, increased reliance on estimated billing, etc.

Being an intellectual property (IP)-based digital product with no moving parts, where back-office software and meter firmware upgrades must be performed with direct involvement of a vendor, AMI meters are only amenable to troubleshooting to a limited degree. Elexicon’s ability to address any meter issues is largely constrained to exploring communication issues, identifying select firmware problems using vendor-supplied field tester equipment tools, and otherwise resorting to replacement. This is different from most other distribution equipment asset classes where utilities have a greater ability to maintain or refurbish some types of core distribution equipment. Meanwhile, as Figure 6 demonstrates, AMI meters are an extreme outlier in terms of current age demographics relative to Elexicon’s other major distribution asset classes.

Figure 6: Asset Class Unit Share Above Total Useful Life

Considering that meters are a true grid edge asset class, maintaining and replacing them involves incurring the full effect of last-mile costs that are not always captured in utilities' current work order records. Moreover, as meter population ages and large-scale issues become more pronounced, Elexicon may be required to keep larger amounts of two different vendor technologies on hand to address failures in different types of the service territory further compounding the cost and complexity of continuing with two multi-modal and extensively aged meter sub-populations are replaced reactively.

3.1.2. Performance

In line with advanced age, Elexicon's meters are showing an accelerating failure rate as shown on Figure 7. Failures can occur at any time and in any part of Elexicon's dispersed and non-contiguous service territory, necessitating costly reactive service calls to investigate and replace the failed hardware, and in some cases requiring a degree of bill estimation, and temporarily degrading the strength of the local mesh canopy (where relevant).

Figure 7: Historical and Projected Meter Failures- Updated Based on Actuals

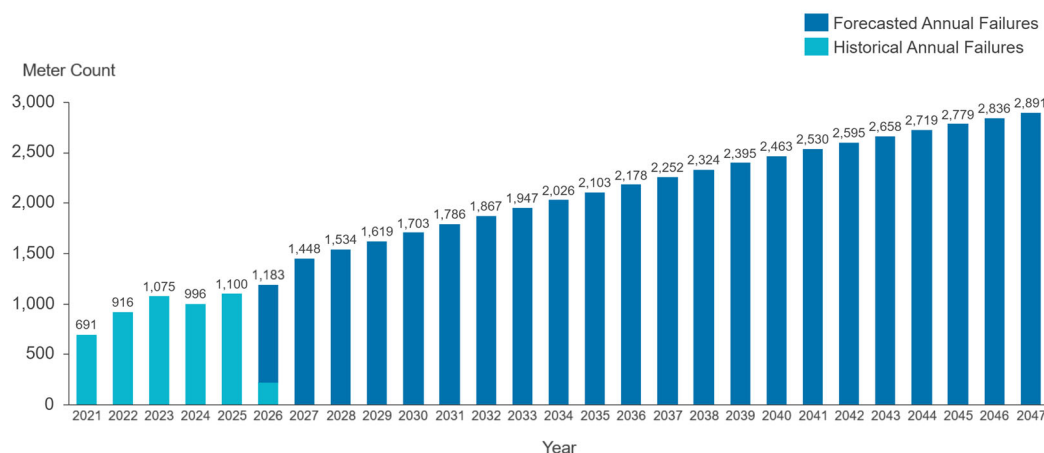


Figure 7 charts the historical and forecasted meter failure rates, based on incorporation of the latest actuals. While Ellexicon commenced tracking meter failures systematically only in 2021, its records suggest a persistent upwards trending of in-field failures, now approaching one meter failure every three days. The actual 2025 year-end results (1,100 failures) matched the company's forecasted failure rates in the previous version of this business case filed as a part of Ellexicon's pre-filed Distribution System Plan (DSP) evidence in the docket number EB-2025-0312. While this is a small-sample finding, and while the updated forecasting approach uses an amended methodology¹², it represents directional validation of a trend that has been accelerating over the past five years.

The forecast portion of Figure 7 draws on a failure forecast developed using an age-based probability-of-failure curve applied to the modelled age distribution of the metering fleet. The model applies a Weibull-style curve calibrated to Ellexicon's available historical failure experience and used to estimate annual reactive failures by meter type and vendor. Because large multi-year historical time series of failures at advanced meter ages are not readily available (since most mass replacements commence around Year 15), the curve has been applied conservatively: it increases the number of failures gradually as the fleet ages but does not assume an abrupt failure cliff or a transition to an exponential failure rates once an even larger portion of populations cross the end-of-life threshold.

While appropriate for the primary purpose, CRA and Ellexicon recognizes that its approach may understate the potential downside risk of continuing with the status quo. The forecast initially aligns reasonably well with peer utility experience: Alectra's AMI 1.0 fleet failed at approximately 1.1% in 2024, which is broadly consistent with Ellexicon's recent actuals. However, both Alectra and Hydro One have also referenced the non-linear nature of meter

¹² The previous version used a linear trend increase, whereas the updated methodology is based on a Weibull distribution curve calibrated to the latest failure rates experienced, but incorporates the curve shape that is appropriate to reflect the finite nature of equipment lifecycle.

failures as assets progress into the wear-out stage of the typical bathtub curve¹³. Hydro One, for example, reported observed failure rates of approximately 4% and 6% for 13- and 14-year-old meters¹⁴, respectively. By comparison, Elexicon's "Do Nothing" scenario (discussed further in the document which assumes indefinite continuation of reactive replacement) produces an implied fleet-wide failure rate of only approximately 1.2% by 2047, despite the fleet being materially older and remaining in service well beyond the expected useful-life range for first-generation AMI meters. The "Do Nothing" failure forecast should therefore be interpreted as a conservative lower-bound estimate of reactive replacement exposure rather than as the most realistic long-term outcome. If Elexicon's aging meter population follows the accelerating failure patterns observed or anticipated by peer utilities, actual failures are expected to exceed the modelled trajectory materially, reinforcing that continued reliance on reactive replacement is not a feasible long-term strategy.

While this business case uses a conservative all-in reactive meter technician truck roll cost plus the cost of meter for the purposes of estimating the cost of reactive residential meter failures, these numbers can vary significantly from one case to another due to the following considerations:

- distance between the service centre and the specific location ("windshield time"),
- time of year, weather, and location of the meter on a customer property,
- any access issues (locked backyard, meter in basement, guard dog, etc.),
- evidence of meter base damage, electrical wiring damage or other code violations on the customer side of the meter that may require a visit from a licensed electrician before the meter tech can proceed,
- evidence of meter tampering, removal or other illicit activities requiring certain protocols, and
- the complexity of the meter's physical setting or issue that may influence the testing and troubleshooting procedures.

As meter failures or other performance issues increase in frequency that affects signal strength and reliability, additional back office and field work may be required to address the missing meter reads (by either querying the relevant HES for additional data checks or (in extreme cases) visiting the locations to collect the meter reads manually. Given the share of AMI meters at the end of their useful lives, the costs associated with reactive meter rectification and the criticality of an accurate and reliable AMI ecosystem for utilities' Customer Support and Meter-to-Cash processes, the status quo of metering demographics alone entails an asset lifecycle risk that warrants decisive action towards a paced, structured and sustainable lifecycle renewal.

¹³ Alectra Exhibit 2A Distribution System Plan Part 2 of 5, Alectra Utilities, 2025 (EB-2025-0252) https://alectrautilities.com/sites/default/files/assets/pdf/OEB_file_regulatory_affairs/alectra_exhibit-2a_distribution-system-plan_part-2-of-5_redacted_20251014.pdf

¹⁴ Hydro One DSP 2022-2027, https://www.hydroone.com/abouthydroone/RegulatoryInformation/JointRateApplications/Documents/HONI_Appl_Exhibit%20B3_DSP_20210805.pdf

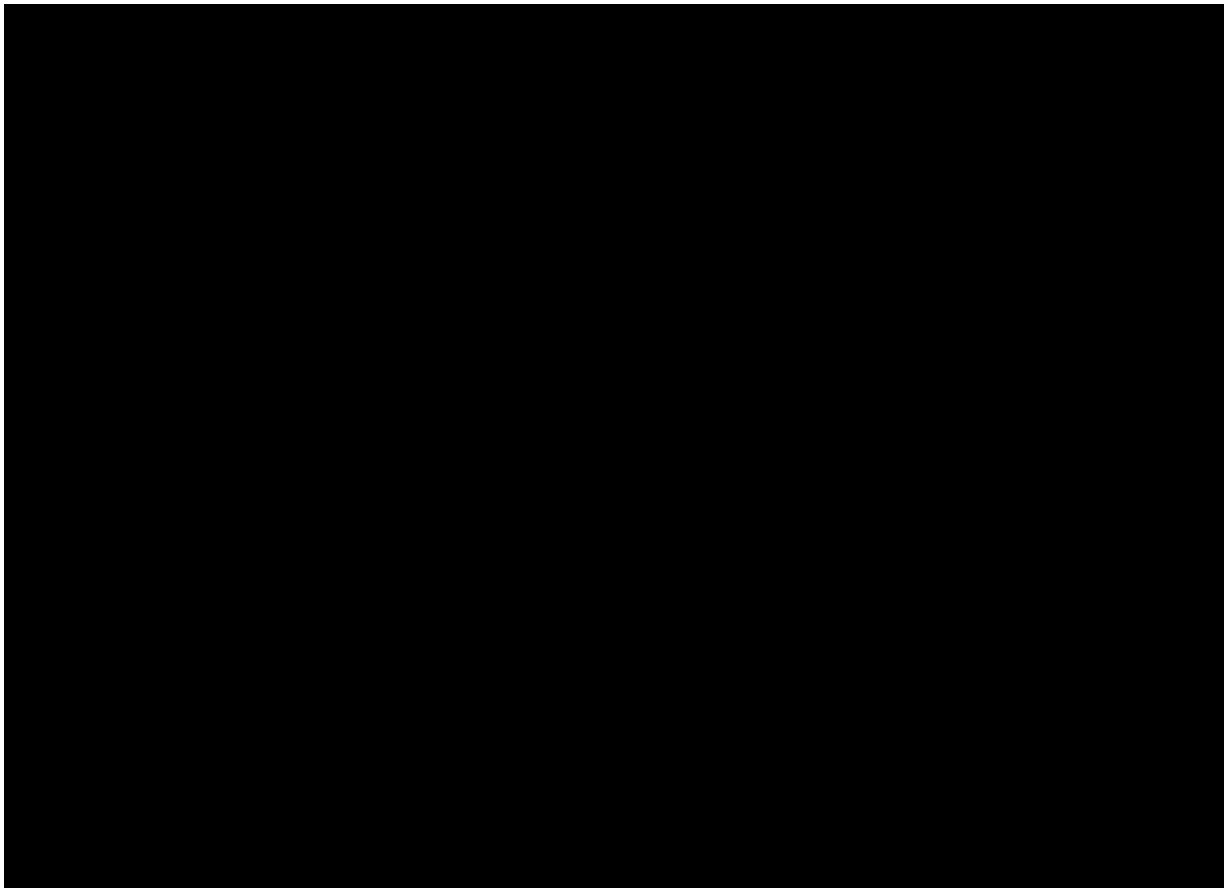
3.2. Supporting Drivers (Near-to-Medium Term): Continued Consolidation Support, Operating Efficiency Enhancement, and Cyber Security Risk Management

While the end-of-life demographics and increasing failure rates make a compelling case for decisive action towards comprehensive AMI renewal, there are multiple additional considerations unrelated to equipment lifecycle that support the need for a new foundational AMI 2.0 solution. Chief among these over the near-to-medium term are Elexicon's objectives in the following areas:

- operational process streamlining in frontline and back-office customer care operations,
- harmonization of service offerings and customer experience across the service area, and
- cyber security risk management

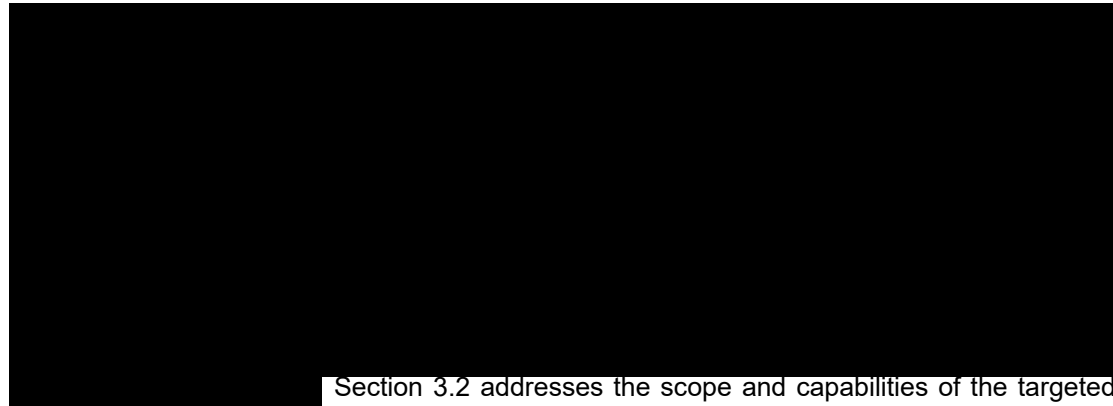
3.2.1. Current System Architecture Overview

Figure 8: Current IT/OT Elexicon Architecture Interacting with the AMI Ecosystem (See Appendix for Data Flow Legend)

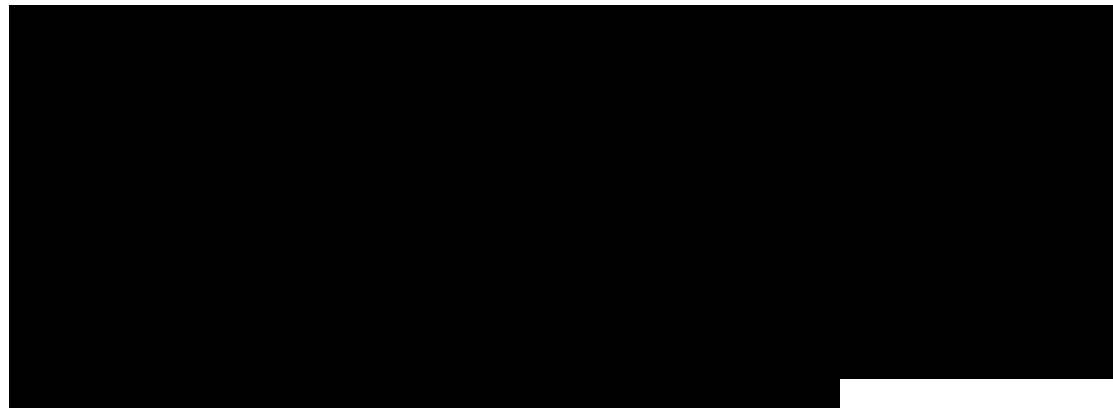
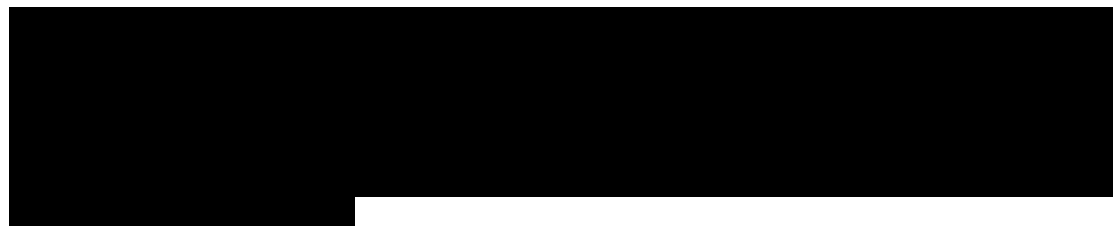


Elexicon's current AMI architecture consists of two distinct vendor solution stacks that rely on technologically unrelated and incompatible sets of meter hardware, head-end system software (HES), and field communications hardware and software technology. Figure 8 displays the

current architecture of Elexicon's information and operations technology (IT and OT) system footprint that interacts with the broader metering ecosystem, including the two AMI stacks. The key elements of the architecture and the associated data flows are described below, while the Appendix provides a full overview of all system interface combinations.



Section 3.2 addresses the scope and capabilities of the targeted foundational AMI 2.0 system and the future operational and related capabilities that it is capable of enabling in more detail.



3.2.2. Operational Process Streamlining and Enhancement

The most immediate insight regarding the status quo of Elexicon's AMI ecosystem is that it contains a duplication of processes, functions, and physical and digital assets that offer no cross-stack efficiencies or redundancies, but come with parallel licensing, training, internal network capacity, and server space costs. The dual-stack solution was a pragmatic merger-time compromise that sought to minimize service level impact and maximize the value of prudent historical investments of meters and field telecom devices. As these parallel systems are increasingly reaching ends of their lives, Elexicon has an opportunity to unify the AMI ecosystem and eliminate, reduce or transform the legacy artifacts that will become redundant.

Along with process duplication reduction, AMI solution consolidation offers the potential of reducing the overall risk exposure footprint within the critical Meter-to-Cash utility process. The

exposure reduction would be driven by outright elimination of at least five existing data interfaces displayed in Figure 8. Since all these interfaces require maintenance, testing and periodic developer support, reducing the overall process complexity automatically reduces the economic value of the organization's risk exposure. With several of the present-day interfaces relying on elements of manual support and verification tasks, process simplification can also reduce the risk of manual errors and create opportunities for the freed-up human capacity to be redeployed in other areas with higher value add.

Shifting towards the hardware end of the current solution ecosystem, solution consolidation carries the most tangible portion of the solution benefits stack. As two AMI meter sub-fleets consolidate into one, Elexicon stands to halve the physical space, the number of inventory SKUs and the overall scope of training, hardware testing, and troubleshooting task variations to manage. Moreover, the current demand for semiconductors and computer processor chips introduces new types of supply chain uncertainty – both in terms of unit price volatility and availability over time more generally. As previous evidence notes, Elexicon has already experienced supply chain delay issues with one of its AMI vendors. As such, consolidating the AMI solution stack to reduce the potential supply chain exposure for a complex asset class requiring advanced manufacturing components at the time of acute global trade uncertainty is a meaningful objective for Elexicon to pursue. Table 1 outlines the types of benefits that Elexicon can expect to accrue over time through the consolidation of its AMI process.

Table 1: Operational Benefits Enhancements Available through AMI Vendor Consolidation

Category	Description and Key Examples	Important Qualifications
Software Licenses (OM&A)	Head end system, mobile testing solution, network analytics, system interfaces	
Networks and IT Environments	Solution testing environment, internal IT network capacity, external telecommunications network costs	Depends on the vendor solution eliminated.
People and Processes	a) one set of Meter-to-Cash processes, including customer support billing, bill corrections, estimation, etc. b) one set of Head End operation training for Customer Service Reps, Billing personnel and Meter Techs. c) one set of meter and field telecom hardware and firmware testing, diagnostics and troubleshooting d) reduced inventory management and vendor time - in line with the reduction of SKUs	

Category	Description and Key Examples	Important Qualifications
	e) one set of training and ongoing support activities for MDM read validation, estimation, etc. f) reduced opportunities for manual errors, process confusion, or interface malfunction issues impacting the process outputs	
Hardware	One set of meter network device (base stations / gatekeepers), field testing hardware, mounting brackets, backup batteries, cables, “meter farm” – hardware testing facility.	Benefits would accrue gradually as the new solution is deployed network-wide and the existing stocker-ordering stops as the last units are used up.
Supply Chain	Inventory carrying costs, physical storeroom efficiency, old meter disposal pipeline, modest volume discounts. Opportunities for emergency spare volume management optimization.	Whether one of the existing vendors or a new vendor is selected, efficiencies will need to be netted out against the cost of sacrificed useful life of the incumbent vendors' equipment with remaining book value that will not be used going forward.

To estimate the financial value of these potential benefits Elexicon requires the completion of a vendor RFP and the subsequent bottom-up design of a new future state, to net out the development costs. As noted in the table above, the selection of a vendor may have a significant impact on the pace and magnitude of benefit realization.

3.2.3. Harmonizing Service Delivery and Customer Experience

With a single set of AMI meter technology, field telecom hardware and HES capabilities come with opportunities for further harmonization of Elexicon’s customer experience across the entire service territory. Today, when handling a customer request involving metering data queries, or performing functions like customer moves or account opening and closing, different Elexicon customers may encounter different service experience depending on make and vintage of an AMI meter installed at their premises. The differences may vary from the time it takes to pull the most recent available meter read, to the ability to perform functions like meter activation or de-energization remotely or being able to receive customer outage alert and perform boundary triangulation without receiving a phone call. An opportunity to renew the metering population with modern technology using the same solution stack would enable Elexicon to offer similar process experience to customers in different parts of its service territory. Looking beyond the current service offerings, a common metering platform will simplify the process of exploring and implementing future service enhancements.

Service experience consistency is not only a measure of customer satisfaction, but also a critical building block for continuous improvement of service delivery and enhancement of internal training, employee management, and coaching processes. A consistent set of tools and processes becomes an enabler of structured learning and improvement, and an unambiguous benchmark for assessing the value trade-offs of future improvements. When process and systems duplication is eliminated, there is also an opportunity to eliminate the historical excuses and heuristics that often hold organizations back from further innovation, deeper introspection, and better service outcomes transparency and accountability.

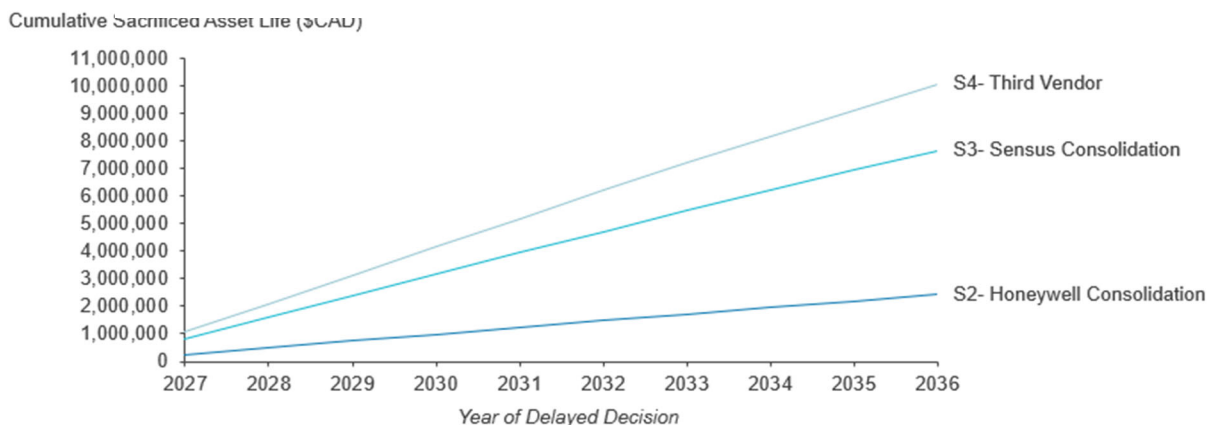
Under the two-vendor status quo, the benefits of service experience harmonization are pushed further into the future with each incremental pair of new meters from either vendor installed in response to an in-field failure or to accommodate customer additions or expansions. Ellexicon estimates that the continuation of the status quo where both vendors' meters are deployed in their relevant service territory segments would add an average of approximately 1,200 new Sensus meters and 3,400 new Honeywell meters per year through reactive replacement and new customer integration over the 2027-2036 timeframe. Accordingly, and depending on the scenario of eventual vendor consolidation chosen

Similar experience would extend to network devices and smaller supporting equipment that would become redundant if the solution it supports did not become the future single vendor solution.

The economic inefficiency associated with delayed service harmonization is illustrated in Figure 9. In each scenario, every year of delay increases the value of meters that would ultimately need to be retired before the end of their useful lives, because Ellexicon would continue installing legacy meters for reactive replacements and new customer connections during the interim period. The effect is materially smaller under the Honeywell scenario, where a larger share of interim Honeywell installations is compatible with the selected AMI 2.0 head end system. For example, a five-year delay would result in approximately for the Third vendor case. This indicates that delay is economically costly under all pathways,

Finally, as Ellexicon continues operating an aged two-vendor solution system it continues

Figure 9: Cumulative Sacrificed Asset Value by Year of Single-Vendor Decision Delay



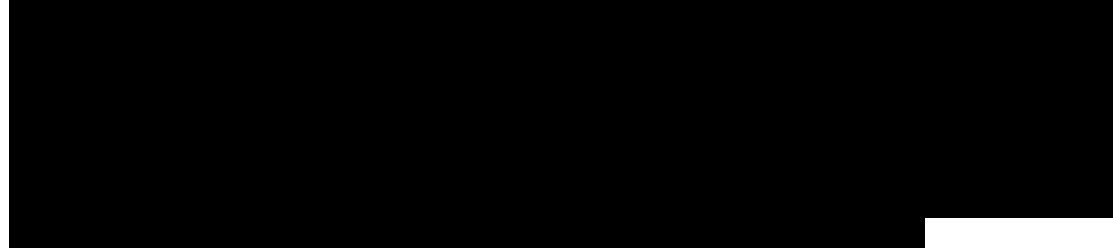
incurring incremental OM&A costs driven by the need to re-verify the expiring meter seals. Ellexicon estimates that roughly 128,000 meters will require reverification between 2026 and 2031, representing approximately 70% of the existing meter fleet. The total cost associated with meter reverification in the "Do Nothing" Scenario is estimated to be \$336,000.

While this work is necessary to maintain Measurement Canada compliance, it does not improve meter functionality, reduce the complexity of the two-vendor operating model, or advance Ellexicon toward a harmonized AMI 2.0 end state. In that sense, reverification represents a sustaining cost of the status quo versus an investment in improving future operations or creating customer value.

Ultimately, continuation with the status quo both delays the attainment of a consistent customer experience in what is already the eighth year of Elexicon's existence, and creates incremental economic costs with each year of delay. Accordingly, service harmonization across both legacy territories would provide tangible customer benefits while also helping to alleviate existing operational inefficiencies associated with the two-vendor environment.

3.2.4. Reducing Cyber Security Risk Exposure from Aging Field Hardware

Continued reliance on two aging solution stacks also elevates the cyber security risk profile of



The concern associated with the continued reliance on aged field hardware has taken on renewed importance in light of recent developments in frontier artificial intelligence. In April of 2026, Anthropic previewed its Claude Mythos model – a frontier AI system purpose-built for cyber security research. According to Anthropic's own disclosures and independent reporting, the Mythos model is capable of autonomously identifying and chaining together “zero-day” vulnerabilities (unknown to supporting IT professionals) across major operating systems, web browsers, and communications stacks. In a U.S. government exercise conducted under Anthropic's Project Glasswing initiative, the model was reported to have identified vulnerabilities in classified U.S. government systems within hours. While access to Mythos itself remains controlled, the underlying capability class has already been claimed to be replicated by other developers, including Chinese cyber security firm 360's recently unveiled “Yitian Tulong” system. While there are no reasons to believe that Elexicon's legacy AMI system is under threat by way of the Mythos model, it is reasonable to expect that vulnerability-identifying capabilities of similar stature will become progressively more accessible to a wider range of threat actors. This would, in turn, shorten the effective useful cyber security life of hardware whose firmware and protocols stopped being supported years or decades ago.

Cyberattacks on the AMI infrastructure ecosystem are not only hypothetical, as evidenced by the April 2026 unauthorized third-party access incident into Itron Inc's internal IT environment.¹⁵ Separately, news outlets reported that the Volt Typhoon threat group maintained persistent access to the operational technology network of Littleton Electric Light and Water Departments (a small U.S. public power and water utility) for approximately nine months between February and November of 2024, with access sustained through decentralized communicating hardware in a distribution-level OT environment.¹⁶

Considering these recent North American case studies, and

cyber security risk management represents an additional supporting driver for the migration to a single-vendor, actively supported AMI 2.0 platform.

¹⁵ <https://www.utilitydive.com/news/critical-infrastructure-cyberattack-itrn-smart-meters/818660/>

¹⁶ <https://www.lclwd.com/wp-content/uploads/2025/03/LELWD-Publicizes-Case-Study-on-Foreign-Hackers-Targeting-US-Utilities.pdf>

3.3. Supporting Drivers (Medium- to Longer-Term): Foundation for Continued Planning, Customer Care, and Grid Management Capabilities Expansion

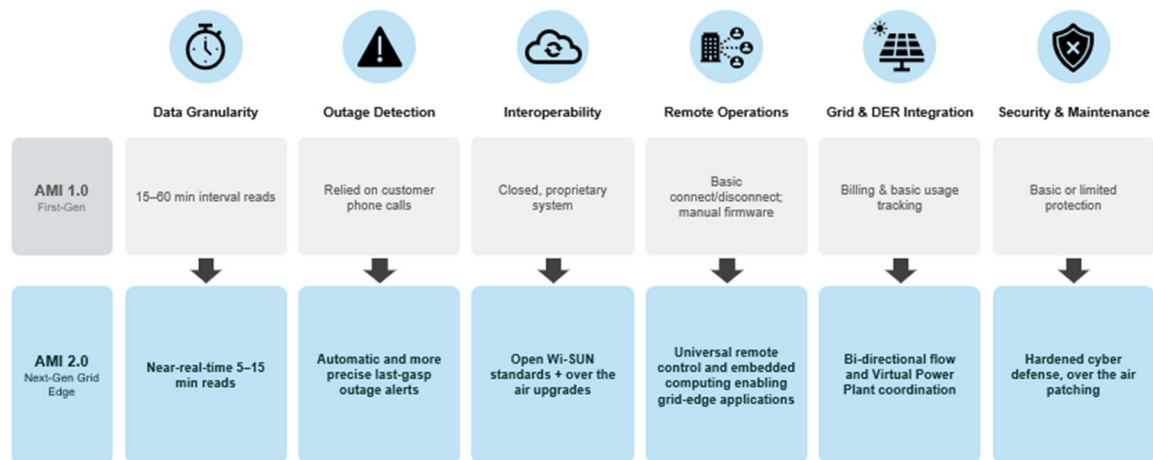
3.3.1. The Evolution of Advanced Metering Equipment and Use Cases

The final set of drivers underlying the proposed AMI system renewal is the enablement of future operating capabilities that extend beyond the remit of those supported by the current technology vintage. Though it contained a variety of additional early-stage use cases, the first generation of AMI meters deployed across North America was primarily focused on digitization of the Meter-to-Cash process and support of Time of Use billing. The newest generation of meters possess a much broader range of increasingly sophisticated measurement, sensing, operating memory, local computing, and peer-to-peer communication tools that can enable a multitude of use cases in grid operations management, investment planning, and asset management.

Figure 10 provides a cursory comparison of non-vendor specific AMI 2.0 capabilities relative to the previous generation's technology. While individual vendors differ in their ranges of offerings, the key advancements of the AMI 2.0 technologies over the prior generation are the following:

- Presence of multiple channels within each meter to simultaneously record and transmit different types of operating data, such as kWh consumption, voltage, current, distributed generation net flow, etc.
- Enhanced operating memory and computing power to perform some data analysis tasks “at the edge” – within the meter itself and only transmit the final data to manage network congestion
- Improved over-the-air firmware upgrade capabilities and advanced encryption to simplify the process of updating the meters' operating systems and security protocols, or adding additional applications
- Ability to capture consumption intervals as short as 15 minutes, where required for advanced market settlement or grid monitoring functions Improved two-way and peer-to-peer communication protocols to enable more remote-control functions and ensure more robust signal propagation for operations and customer care use cases.

Figure 10: First and Second-Generation AMI Feature Comparison



3.3.2. Preparing for the Future, Pragmatically and Responsibly

In embarking upon an AMI meter renewal exercise, Elexicon is aware of these advanced capabilities and the potential they may hold. However, in discussing them with Elexicon the organization is also cognizant of the incremental costs often associated with the advanced use cases, and the uncertainty regarding the timing of need for these cases, or benefits magnitude. Recognizing the speed at which both grid technologies and energy markets are evolving, Elexicon must strike a balance between decisive action to address its aging and failing population of existing meters and equipping the replacement meters with a sufficiently broad range of capabilities that can be activated over their 15-year+ lifespan, as advanced use cases emerge and mature. As such, enabling future services expansion and innovation is a notable medium-to-long-term planning driver, even if no such use cases may be pursued in the current scope, as discussed in more detail in Chapter 4. We describe our reasons for this recommended approach below.

Elexicon is closely tracking the evolution of its customers' needs to ensure that it offers the right combination of physical assets and digital services to maximize the value of the distribution grid to customers. The utility also actively participates in the Ontario Energy Board's (OEB) policy proceedings on cutting-edge policy topics like the evolution of reliability standards, value of distributed energy resources (DERs), deliberations on the Distribution System Operator (DSO) model, and others. Across these future-oriented engagements, Elexicon recognizes the potential for electricity service delivery transformation and the role in this process played by utility technology, including the tools that can emerge through the AMI 2.0 ecosystem. However, when looking for implementation-ready advanced-use cases with relevance to its own service territory, there are currently several limiting factors or considerations:

- The impact of planned foundational IT and OT work scheduled for the 2027-2031 timeframe which may impact implementation logistics of advanced use cases.
- Nascent stage of DER adoption in Elexicon's service territory and the evolution of Ontario's DER market mechanisms, and
- Policy uncertainty regarding cost responsibility for advanced technology use cases.

We discuss each of these considerations below.

The impact of planned and ongoing foundational IT and OT work

As described in more detail in Chapter 4, Elexicon currently finds itself amidst of several major IT and OT projects that are set to continue through much of the 2027-2031 planning period. Among them is the second phase of the Dx NEXT project and a multiple OT Investments, including the Advanced Distribution Management System (ADMS), Geographic Information System (GIS), Distributed Energy Resource Management System (DERMS) and the Enterprise Service Bus (ESB), among others. It is reasonable to expect that the final scopes and technical configurations of these systems can have a bearing on the design, cost, or even need for specific advanced AMI use cases. For these practical reasons, CRA recommends it as prudent to defer the consideration of any advanced use AMI use cases until after these foundational solutions are in place and stabilized.

Elexicon's Current DER Landscape

With just under 1,100 kW of combined rooftop solar installed capacity, 2,500 kW of ground-mounted PV, and less than 21,000 kW of battery energy storage systems, Elexicon's renewables penetration remains relatively modest. With modest penetration, the operating issues or programmatic features that would require support through advanced DER monitoring, settlement, or two-way control have not yet emerged on a system-wide level to require the associated advanced use case deployments within its service territory. More generally, Ontario's DER marketplace remains relatively limited in terms of third-party DER aggregator activity, or other forms of clear signals pointing to other forms of centralized DER services procurement that would create near-term impetus for advanced DER detection or settlement interfaces, or similar tools.

Current Policy Uncertainty Regarding Advanced Technology Use Cases

As noted above, Elexicon is an active participant in a variety of the OEB consultation activities on the evolution of electricity distributors' roles in operating increasingly sophisticated and complex networks that contend with two-way power flows, grid assets on either side of the customer meter, and an increasingly larger amount of digital devices. While these proceedings typically advance sophisticated visions of assets and services that today's distributors must start planning for, there also remains a significant degree of uncertainty as to the maturity of these visions, or the OEB's expectations when reviewing proposals for the underlying investments. For example, while it lays out a compelling vision and highlights multiple points of progress towards the implementation of the Distribution System Operator (DSO) model, the Ontario Energy Association's (OEA) 2026 Ontario DSO Roadmap is explicit that there exist multiple "regulatory gaps and barriers to DSO enablement" today.¹⁷ A key forward policy signal would be any clarification on cost responsibility of DER data management and settlement support tools between distributors and their broader customer bases, and third-party aggregators and individual DER operators, who would benefit from them more directly. While these issues are actively debated in multiple North American jurisdictions¹⁸ and the OEB policy guidance remains forthcoming, we believe that deferring any consideration of such investments is a prudent course of action for Elexicon.

¹⁷ OEA / Capgemini, 2026, p. 13.

¹⁸ For example, an October 8, 2025, FERC complaint by Voltus, Inc and Mission:data against PJM related to residential meter data management for the purposes of wholesale settlements.

https://elibrary.ferc.gov/eLibrary/docinfo?accession_num=20251008-5177

4. PLANNING REALITIES AND THEIR IMPACT ON KEY SCOPE AND DEPLOYMENT PARAMETERS

The previous chapter articulated the need for action towards a comprehensive renewal of Ellexicon's existing AMI population, in a manner that consolidates the future-state AMI stack to a single vendor, enables further harmonization of customer service delivery, and provides a firm and flexible foundation for future advanced use cases. Having established these core investment drivers and the associated considerations, this chapter explores a set of planning realities that have a direct bearing on the scope, sequencing, and pacing of activities that AMI 2.0 deployment must accommodate.

By virtue of being a product of a relatively recent merger, experiencing customer growth rates that eclipse the provincial average, requiring station capacity expansion across much of its service territory, and undergoing several foundational IT and OT projects, Ellexicon's 2027-2031 investment horizon dictates a set of distinct planning realities that the AMI 2.0 foundational project scope analysis should take into consideration. Chief among these planning realities are the following:

- *Urgency of Action*: an extensively aged meter fleet that is exhibiting accelerating failures and moves Ellexicon further away from the desired single-vendor end state with each incremental installation of a Sensus and a Honeywell meter.
- *Concurrent Foundational IT/OT Projects*: planned deployment of major IT and OT systems over the 2027-2031 timeframe, which is likely to absorb the bulk of Ellexicon's internal design capacity, and the final design of which may have a bearing on some design choices of the final AMI 2.0 solution.
- *Competing Investment Priority*: a 2027-2031 capital envelope that reflects a variety of pressing needs, including station capacity expansion, renewal and hardening of overhead distribution plant, major IT and OT projects, and other priorities, and many others, of which AMI 2.0 is one investment.
- *Meters with "Upcycling" Potential*: a substantial number of recently deployed Sensus and Honeywell meters that can be compatible with their vendors' latest "AMI 2.0" communications protocols, and which Ellexicon seeks to preserve in service to minimize the equipment's sacrificed useful lives and manage the overall cost of the AMI 2.0 project.

Taken together, these four realities define both the necessity of near-term action and the boundaries of what that action can responsibly include in this rate period. As the discussion that follows highlights, their combined effect coalesces in a set of specific project scope and sequencing characteristics that stand to at once customize and de-risk the deployment path.

4.1. An Aging and Increasingly Diverging Metering Fleet that Warrants Near-Term Action

Chapter 3 discusses at length the demographic and failure-rate rationale for commencing a comprehensive AMI renewal program in the current rate period, along with the operational, customer experience, and financial impact of continued reliance on two distinct legacy solution stacks. With every year that the two-vendor status quo continues, Ellexicon's fleet continues to age, while also drifting further away from the consolidated future state that a modern AMI 2.0 solution requires. This is because reactive replacements and new customer additions in the interim will continue to be made using the same two vendor technologies that Ellexicon is ultimately seeking to modernize and consolidate into one.

The direct implication of this status quo is one that Elexicon's AMI 2.0 project should prioritize deploying the chosen future-state AMI 2.0 meters as soon as possible from the start of the project, in order to begin addressing the aging populations and stemming the flow of vendor divergence that will require more premature retirements the longer it proceeds. While this implication is intuitive, it is notable because it runs counter to how most AMI projects proceed, where the overall IT / OT solution design and deployment begin at the outset, and meter deployment eventually commences sometime between one to two years from kick-off. In Elexicon's current circumstances, on the other hand, a preferred solution would be one that allows it to install and enable the core metering hardware first to begin on the path to consolidation while sustaining the performance standards of the core Meter-to-Cash function. In prioritizing meter deployment, the more advanced solution features design and downstream systems integration would occur in a future phase.

From a technical solution perspective, this approach requires deployment of new meters that can initially interact with existing network and back-office tools but can be eventually switched over to a more advanced set of AMI 2.0 solution features and operating protocols without augmenting the hardware installed. Based on its research into the newest solutions of its two incumbent vendors and several other providers, along with consulting with several utilities undergoing active AMI 2.0 deployments, Elexicon understands that this is possible under at least two scenarios (with more to be potentially identified by vendors during competitive procurement activities):

- *(for incumbent vendors)*: initially deploying new meters in the legacy AMI 1.0 mode and eventually transitioning them onto the 2.0 functionality using over-the-air upgrades once the solution design is completed and the network is ready for a switch-over.
- *(for potential new vendors)* deploying early-year meters equipped with both cellular and RF Mesh communication capabilities and operating them initially in the cellular mode communicating with an interim "Head End Light" system, until the broader 2.0 IT functionality is designed and implemented.

These considerations will be revisited in the following chapters as features of financial and logistical analysis that this business case concludes with. In the interim, it is worth noting that forward- and backwards-compatibility between older and newer solution versions is an explicit feature that many AMI providers (including both of Elexicon's incumbents) specifically design to maximize the odds of retaining clients by simplify their transitioning process.¹⁹ As such, while the contemplated approach differs from a traditional AMI project where a net-new system is deployed, the options discussed in this section do not constitute deviations from best practices.

4.2. A Concurrent IT and OT Design Program that Constrains What Can Be Designed Now

While the demographic clock sets the outer boundary on how long meter deployment can be delayed, the dynamics of Elexicon's ongoing and planned IT and OT portfolio upgrade and expansion set an equally binding boundary on how much of the full AMI 2.0 solution design can be responsibly undertaken over the 2027-2031 planning horizon. Multiple foundational IT and OT solutions on which a fully integrated AMI 2.0 platform would depend are themselves under active design or deployment across the same 2027-2031 window.

¹⁹ To validate this assertion, CRA conducted publicly available technical specification documents from both vendors, discussed the experience with utilities installing AMI 2.0 solution and reviewed Elexicon staff's correspondence with their incumbent AMI vendors regarding this subject.

Table 2 showcases these solutions and briefly lays out their interdependencies with core and advanced AMI 2.0 solution features and/ or advanced use cases.

Table 2: IT and OT Systems with Key AMI 2.0 Interdependencies

Planned System Upgrade	Significance of Upgrade for Advanced AMI Use Cases*	Planned Upgrade Completion
Dx NEXT Phase 2: Enterprise Resource Planning	Asset Management and Financial Systems integrations with AMI 2.0 solution may be required for advanced asset analytics and operations use cases Conservation Voltage Reduction (CRV), DSO-related use cases, Secondary System Mapping and others.	2027
Enterprise Service Bus (ESB) (Part of OT Portfolio)	The ESB is a potential path for integration of the Power Outage / Power Restoration Notifications (PONs / PRNs) with the dispatcher and control room tools – most notably the ADMS. The ESB may also feature in the Remote Connect / Disconnect	2031
GIS System Upgrades (Part of OT Portfolio)	Integration with an upgraded GIS System would likely be in scope of most use cases involving Asset Management, outage identification, and system performance optimization.	2031
Advanced Distribution Management System (Part of OT Portfolio)	ADMS integration is required for the last-gasp outage identification and may be impacted by the Remote Connect / Disconnect use case – depending on design scope and configuration.	2031
Distributed Energy Resource Management System (DERMS) (Part of OT Portfolio)	Most voltage monitoring or CRV use cases involving the AMI ecosystem as a monitoring point would also require integration with DERMS. Most DSO-related use cases would require integration with the DERMS.	2031

As the table above suggests, there are multiple nuanced scope, vendor, design and solution deployment decisions that Elexicon will undertake over the coming rate period that can influence whether and how Elexicon can introduce certain advanced functionalities and can materially impact any use case-specific benefit-cost analysis considerations. Aside from specific use cases, the full AMI 2.0 Head End System design functionality will involve management of an increased number and types of operating data flows, verifications, and other features. If possible, it is prudent to delay the consideration of these features and their interaction with the rest of Elexicon's IT and OT ecosystem until all its foundational elements are built out and stabilized.

Outside of project implementation timing, an equally crucial project coordination variable for a utility of Elexicon's size is the availability of experienced internal professionals to support a

comprehensive solution design as a primary owner or a key stakeholder representing a line of business. Given the focus on the foundational IT and OT projects (and the overall volume and interdependency of these projects), Elexicon sees it as prudent to defer those technology solution design and integration decisions to support the more urgent need for replacement of legacy meters with new AMI 2.0-compatible hardware and continued functioning of the Meter-to-cash capabilities.

4.3. Capital Envelope Constraints from Competing Projects

The third planning reality is the capital envelope within which the AMI 2.0 foundation is one investment among many. Across the 2027-2031 rate period, Elexicon faces an unprecedented amount of urgent investment drivers in light of its rapidly growing customer base, aging infrastructure and the need to harden and upgrade both physical and digital infrastructure. The effect of these and other investments described at length in Elexicon's Distribution System Plan is the fact that the AMI 2.0 project is allocated a total of approximately \$21.4 million over the 2027 - 2031 timeframe.

To maximize the use of this proposed funding envelope in a way that delivers tangible customer value as soon as possible, it is prudent to plan a hardware-forward deployment that prioritizes meter deployment by leveraging interim compatibility with the existing HES and telecommunication devices and defers the full functional AMI 2.0 software solution design and deployment until the following (2032-2036) rate period.

Deferring the AMI 2.0 software solution design and integration work to the 2032-2036 rate period does not mean that the work will not be done, or that its cost is being obscured. Rather (and provided this approach is pursued), the overall software solution design will be scoped, costed, and brought forward for an update at the next rate application – when the counterparty systems it must integrate with are past their own initial adoption and stabilization periods, when the internal capacity to lead more advanced IT work is available, and when the design inputs and policy parameters required to identify more advanced features and use cases have had an opportunity to mature and evolve.

4.4. Newer Meters with “Upcycling” Potential: A Constraint and an Enabler

Driven by both sustained customer growth and accelerating failures of its existing meters, a portion of Elexicon's overall meter population is relatively new, and reportedly compatible²⁰ with the latest AMI 2.0 solution protocols of the respective vendors. Specifically, there are over 19,500 newer Honeywell meters across several incremental models and about 4,600 Sensus meters that can be integrated into the new AMI 2.0 ecosystem without any hardware changes. This meter “upcycling” is only feasible under certain specific deployment scenarios, namely where the legacy vendor in question becomes the vendor of choice for the unified AMI 2.0 technology, and where Elexicon is willing to tolerate certain secondary capabilities differences between the meters retained in service, and the net-new meter hardware design outcome that may add some additional features that will be missing on the earlier subset without limiting their compliance with all core Measurement Canada and OEB requirements.

This subset of meters capable of being upcycled to the AMI 2.0 ecosystem are at once a deployment logistics planning constraint and a lifecycle savings enabler for Elexicon's purposes:

- *When viewed as a constraint*, this subpopulation of preserved meters narrows the space of viable deployment paths. Preserving one of the subpopulations' useful lives

²⁰ Based on conversations with both vendors and independent research of vendor technical literature.

is only possible under an incumbent vendor deployment path, because the compatibility of the meters is with an upgraded configuration of the corresponding incumbents' platforms. A transition to a third-party vendor would require the full existing fleet to be replaced regardless of remaining useful life, converting the preserved subpopulation into sacrificed asset value. While the number of meters in either subpopulation is not so large to pre-determine the path of Elexicon's AMI 2.0 vendor selection, it nevertheless becomes a consideration that this business case explicitly models in Chapter 5.

- *When viewed as an enabler*, either sub-population of AMI 2.0-compatible meters that can be brought forward into the new solution becomes an implementation beachhead and a source of cost avoidance in what is a lengthy implementation path and a competitive market for digital devices with complex processing chips. To the extent that eventual competitive procurement activities confirm the viability of this approach in a manner that does not leave an unacceptable gap between these legacy meters and the net new standard design, it is a source of meaningful value that is incorporated into the relevant Chapter 5 scenario analysis runs.

4.5. Synthesizing the Implications of the Four Planning Constraints

When taken together, the four specific constraints discussed in preceding sections and the investment drivers discussed in Chapter 3 coalesce into the following vision of a successful AMI deployment for Elexicon's second-generation AMI project:



The above formulation suggests that Elexicon's 2027-2031 AMI project may be more accurately characterized as conservatively paced "AMI 2.0" – a solution that deploys forward-compatible uniform hardware in the legacy AMI 1.0 communication and data gathering mode to prioritize taking control of effects of extensive plant aging, but has all of the hardware and firmware foundations of a modern AMI 2.0 solution that can be activated remotely once the comprehensive software solution and the associated integrations are designed and tested in the early stages of the 2032-2036 rate period. At that juncture, Elexicon will attain the overall AMI 2.0 capabilities, which it will be better positioned to leverage because the core IT and OT investments will be completed and stabilized over the 2027-2031 timeframe. This is a paced and pragmatic implementation path that is realistic about its current capabilities, and the human and financial resources that are available to execute this project, yet committed to harmonizing the asset bases, operating practices and customer experience outcomes and mitigating the significant financial, customer and operational risks that the current metering asset base poses.

Figure 11: AMI Project Phases Relative to Other Major 2027-2031 IT and OT Initiatives



Figure 11 presents the implication of the constraints discussed in this chapter in a visual form, showcasing the desired sequencing of the AMI 2.0 project phases, where hardware design and deployment in the compatible mode to the existing head end and network hardware start out the project, and the broader IT solution design phase, upon completion of which the system transfers onto the full AMI 2.0 protocol commences after the core IT and OT projects slated for 2027-2031 are completed.

4.6. Reasons for Optimism Associated with a Paced Transition to AMI 2.0 Capabilities

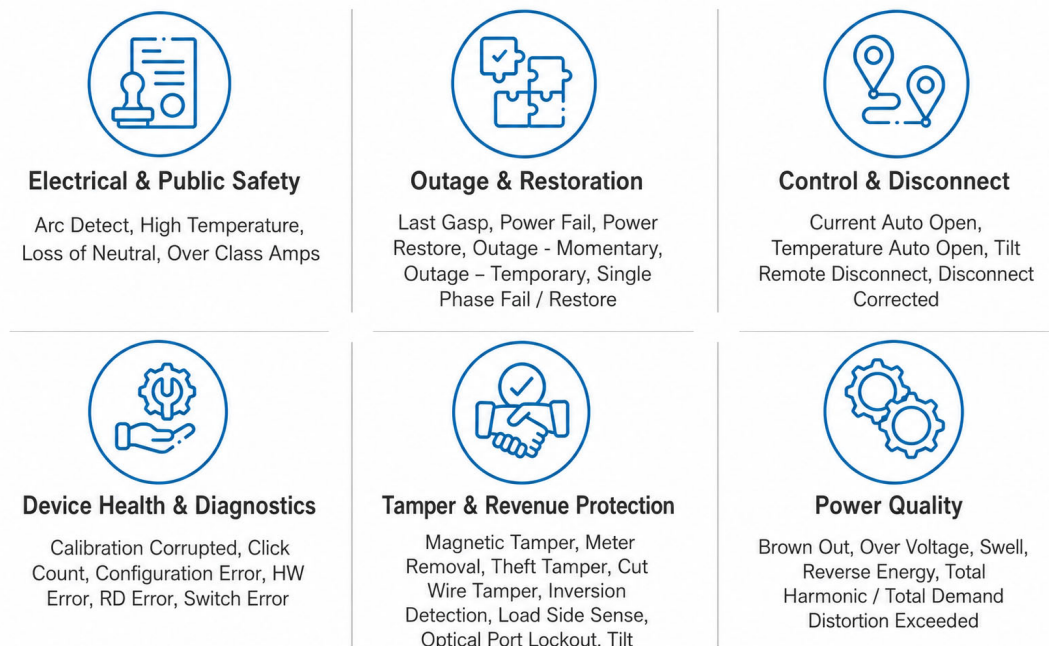
CRA sees multiple reasons why the recommended paced approach to AMI 2.0 transition discussed above is the most pragmatic strategy that is especially appropriate for a utility of Ellexicon's size, post-merger operational harmonization circumstances, and the diversity and urgency of multiple capital program drivers.

Backwards and Forward Compatibility Exists Specifically to Enable These Types of Transitions: vendors understand the importance of enabling maximally efficient and interruption-free transitions from legacy platforms to their newer versions, which is why they design meter and network hardware that can operate in multiple modes. To the extent that the technical part of the competitive procurement processes confirms the viability of such transition in Ellexicon's circumstances (which CRA's research suggests to be the case), it presents an optimal opportunity for Ellexicon to address its near-term AMI hardware demographic pressures, while exercising strategic patience while relevant core IT and OT systems are fully upgraded and stabilized.

As they Become Standard Across Ontario's Distributors, Advanced Use Case Lessons Learned Will Help Ellexicon Be a Fast Follower: today, only two non-overlapping subsets of Ellexicon's meters are capable of remote connection and disconnection features, and/or contain the "last gasp" technology that alerts the control room of loss of power at the meter without requiring a phone call. While Ellexicon is already motivated to make these features universally available, one or both may require the full AMI 2.0 advanced capabilities and/or integration with ADMS that is set to undergo upgrades and expansions over the 2027-2031 timeframe. During

this time, we expect at least some Ontario distributors to deploy these and other advanced use cases, creating best practices blueprints for Elexicon to follow. As notes in the previous chapter, there are currently no pressing local operations or policy reasons for Elexicon to lead the way on advanced capabilities. Accordingly, a conservative adoption path that focused on AMI 2.0 hardware that leaves the flexibility for a variety of future use cases is an appropriate way to balance present and future technology risks, while moving the overall technological evolution forward responsibly.

Figure 12: Sensus Stratus IQ + Default Meter Alerts



The Default Designs of the Newest Meters Contain a Multitude of Potential Use Cases: by conducting a “hardware-forward” AMI deployment that defers the full AMI 2.0 software solution design, Elexicon is still enabling a broad range of potential advanced use cases. For example, Figure 12 displays a set of default alarm settings available within a residential Sensus Stratus IQ+ meter, which is the latest Sensus product certified for use in Ontario. As the diagram suggests, there are over 40 potential alarms that come standard, with at least four separate communication channels for performing a variety of simultaneous sensing, measurement, calculation, and communication operations. Based on Elexicon’s research and consultation with vendors, these features are designed to be activated, configured and otherwise modified through over-the-air firmware upgrades sent from the HES. Honeywell meters possess similar capabilities.

During the vendor selection RFP, we expect Elexicon to investigate the capabilities evolution issue further, construct a clear list of functionalities and their trade-offs across vendor and meter products, and evaluate with care the hardware options that require upfront installation (e.g. capacitors to enable momentary outages “ride through” before sending a last-gasp outage notice, disconnect switches, manual reset buttons, and others). However, for the time being, the CRA’s research and consultations with vendors and peer utilities are giving us enough confidence that the hardware-forward gradual transition approach to the full AMI 2.0 capability is one viable path to pursue further, including by investigating it in detail through the technical solution portion of the competitive procurement process.

5. ANALYTICAL APPROACH

5.1. Overview and Rationale

Having substantiated the core need and supporting drivers for near-term action on AMI 2.0 deployment and having outlined the key execution constraints that may shape the technical scope, nature, and sequencing of project activities in its early years, this chapter sets out the analytical framework that CRA and Elexicon used to compare the economic and financial implications of multiple vendor and deployment duration scenarios. As stated throughout this business case document, we recommend that Elexicon conduct a competitive procurement process to select a single vendor, validate its technical and financial assumptions, and lock in the implementation schedule. While this means that the pricing outcomes may evolve further, our financial analysis at this juncture carries the following benefits:

- *Crystallizing the Key Trade-Off Dimensions*: by conducting detailed economic lifecycle analysis across multiple options, we were able to identify the key financial and logistical trade-offs between various scenarios considered. A nuanced understanding of trade-off dimensions will help Elexicon design an RFP process that will efficiently and transparently validate them and explore them further, helping the organization make a fully informed decision.
- *Assessing Full Lifecycle Costs of Solution Options*: while AMI vendor procurement processes yield both capital and OM&A proposal elements, the vendors' emphasis is invariably on the immediate solution deployment costs, which are largely capital and constitute the bulk of activities over the first several years of deployment. It was thus important for Elexicon to develop a comprehensive lifecycle cost framework that evaluates the AMI solutions' capital and OM&A costs over a 20-year timeframe, incorporates the assumptions on costs and volumes of reactive failures before, during and after the mass deployment, and incorporates the analysis of sacrificed life of non-selected vendor meters that must be removed from service. The analysis performed to date helps Elexicon plan its longer-term expectations of operating resources over the project's lifecycle and gives it a tool to prepare for and navigate the eventual contract negotiations. During the RFP, the lifecycle modelling framework can be updated with formal vendor quotes to ensure that the lifecycle management view remains an important decision of Elexicon's procurement decision-making.
- *Assessing the Near-Term Implications of Planning Constraints*: to balance its long-term economic lifecycle view with pragmatic consideration of its near-term priorities and constraints, the financial analysis contains both lifecycle cost and deployment period capital expenditures views. Moreover, translating from lifecycle view to capital expenditures view invariably forces Elexicon to consider the actual logistical activities sequencing (e.g. solution development vs. meter deployment) permissible under various scenarios, thus adding a non-financial feasibility screen into the overall consideration.

Guided by the considerations above, CRA and Elexicon built an analytical framework that examines each scenario first on its own lifecycle merits, and then against the specific planning realities of the 2027-2031 rate period discussed in Chapter 4. The analysis explores four distinct lifecycle management scenarios:

- *"Do Nothing"*: continue the present trends of reactive meter replacement and new customer meter setting using the best available Sensus meters in the legacy Whitby area and Honeywell meters in the legacy Veridian area. Continue this practice for the 20 years of the lifecycle analysis modelled. While this scenario is not a practical long-term option in light of the demographic and operational risks discussed in Chapter 3, it

serves as the analytical benchmark against which the three action scenarios are compared.

- *“Consolidate to Honeywell”*: select Honeywell as the single vendor of choice. Replace all non-AMI 2.0-compatible Honeywell meters and all Sensus meters (and network hardware) with the selected Honeywell equivalents. Retain the AMI 2.0 solution-compatible Honeywell meters already in place to maximize their expected value, even if there are minor differences between capabilities of the mass-deployed units and the compatible incumbents already in place.
- *“Consolidate to Sensus”*: select Sensus as the single vendor of choice. Proceed under the same assumptions as “Consolidate to Honeywell” scenario described above.
- *“Transition to Third Party Vendor”*: select a new AMI solution vendor to replace the two incumbents. Transition to the new vendor’s solution in a manner that preserves the continuity of the core day-to-day Meter-to-Cash operations. Remove all Honeywell and Sensus meters and network infrastructure not compatible with the new vendor’s solution.

There are also four complementary dimensions of analysis applied to all scenarios:

- *Lifecycle Cost Net Present Value (NPV) View*: an all-in 20-year cost forecast of AMI operations before, during and after the mass deployment, including reactive meter failures, new customer connections, ongoing licensing, maintenance and support OM&A for core hardware and software, along with deployment costs comprised of equipment, installation and logistics and solution software design and implementation costs.
- *Deployment Period Capital Cost Forecast View*: the solution deployment capital budget as reported in Distribution System Plans and rate applications. This view focuses on the near-term capital outlays required to deliver the project, including solution design pre-requisites ahead of mass deployment, the scope and sequencing of which may vary across the scenarios and warrant further analysis beyond the financial dimension considering Elexicon’s 2027-2031 priorities. This view essentially restates the lifecycle view into the deployment project cost.
- *Sacrificed Life View*: for all scenarios considered, Elexicon has estimated the value of in-service assets that would be required to be removed from service before reaching the end of their accounting lives. While this view alone is insufficient to drive the scenario decision, it serves as an important modifier to the conclusions from other scenario views. For the purposes of this analysis, Elexicon assumed a 15-year depreciation life for meters and field communication devices. Irrespective of which vendor (either incumbent or a new one) is selected, it is certain that some equipment with remaining life will be removed from service prematurely. Understanding the degree to which this varies across the scenarios thus forms an important dimension of decision-making.
- *2027-2031 Constraints Accommodation View*: this final analysis dimension combined financial analysis results with key deployment logistics considerations to opine on the overall viability of a given scenario (or a common subset of scenarios) in light of Elexicon’s constraints discussed in Chapter 4. While this is not intended to be a definitive dimension, it serves to build on the previous dimensions integrate the financial, technical and logistical aspects of deployment planning ahead of providing recommendations.

The following sections describe the analysis framework further.

5.2. About the Lifecycle Cost Model

As noted above, CRA constructed the AMI 2.0 deployment financial model to identify the key factors that drive differences across potential approaches and support decisions around program scope, rollout timing, sequencing, and system requirements.

The AMI 2.0 model translates Elexicon's current meter population, projected customer growth, meter aging, failure assumptions, compliance requirements, and deployment choices into an annual forecast of meter replacements and associated costs. For each scenario, the model tracks the number, type, age, and vendor compatibility of meters in service over the planning period. It then estimates the meter, infrastructure, software, development, reverification, and operating costs required to maintain or transition the fleet each year, depending on the modelled deployment length, customer growth, and meter failure rate inputs.

This allows CRA and Elexicon to compare not only the direct cost of deploying a new AMI 2.0 system, but also the cost of continuing to operate the existing fleet throughout its lifecycle. The additional cost components introduced in the lifecycle modelling (relative to a direct deployment model) include reactive replacements, duplicate legacy-system costs, reverification requirements, and the potential implications of retaining meters beyond their expected useful life. Results are presented through annual cost profiles, lifecycle cost and NPV comparisons, along with meter replacement volumes, and fleet-age metrics.

Detailed meter, software, licensing, implementation, and support costs will ultimately be determined through an RFP process and vendor negotiations. However, the analysis provides an important foundation for that process by helping Elexicon define the functional and operational requirements it expects a future AMI 2.0 solution to meet and establish a baseline against which future vendor proposals can be assessed. In addition, CRA suggests that Elexicon consider updating the model at various stages of the RFP process to help its deliberations and negotiations.

5.3. Scenario Framework in More Detail

As stated above, the model evaluates four potential meter lifecycle management pathways: (1) Do Nothing (maintain status quo) (2) Consolidate to Honeywell (3) Consolidate to Sensus, and (4) Transition to Third Party Vendor. Each scenario is discussed in more detail below.

5.3.1. Scenario 1: Do Nothing (Maintain Status Quo)

Under this scenario, Elexicon would continue operating its existing Honeywell and Sensus AMI environments, replacing meters only as they fail or require replacement for Measurement Canada compliance.

Elexicon would continue to operate both vendor platforms, including separate head-end systems, communications infrastructure, software, licensing, inventory, and support arrangements. The model therefore includes ongoing reactive replacement costs as well as the continued cost of maintaining two AMI environments, and Measurement Canada sampling and re-verification of meters with expiring seals.

To illustrate the practical implications of this scenario, Figure 13 displays the projected aging of Elexicon's meter fleet under the "Do Nothing" scenario. Under this approach, meters are generally retained in service until failure or compliance-driven replacement rather than being replaced through a planned renewal program.

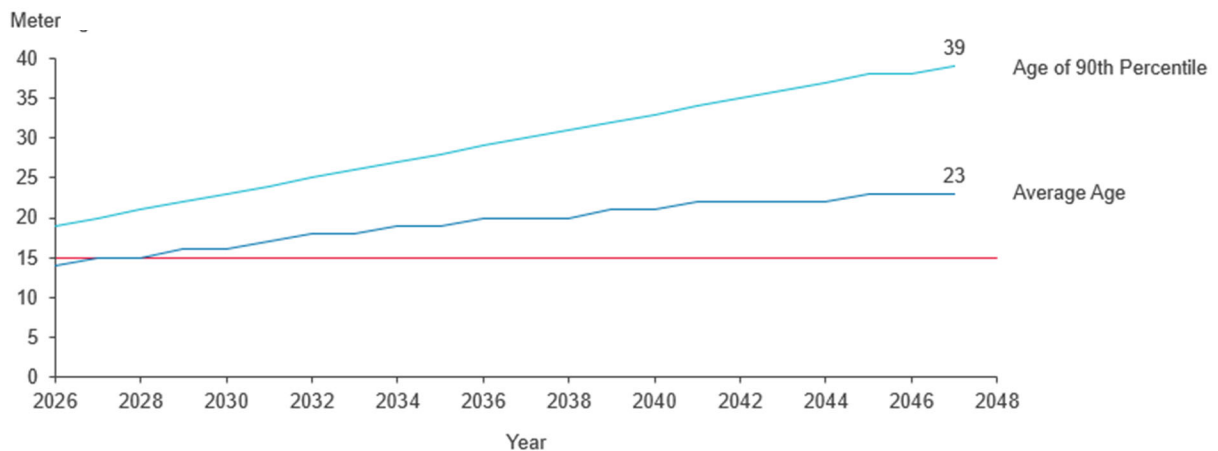
As shown in the figure below, the model projects that the fleet's average age increases from approximately 14 years in 2026 to 20 years by 2047, exceeding the assumed 15-year useful life for much of the planning period. The age of the 90th percentile of the fleet increases more sharply, from approximately 19 years in 2026 to 39 years by 2047. As discussed in Chapter 3,

these results are counter to the industry consensus on the useful life boundaries of AMI hardware, which underscores the fact that “Do Nothing” is not a practical option.

This aging profile also highlights a key limitation of relying on reactive replacement. While the model captures expected replacement activity based on available failure assumptions, it may not fully reflect the potential for failures, customer impacts, and operational costs to increase as a large share of the fleet moves well beyond its expected useful life, which may impact AMI network stability, or require Elexicon to expand its reactive meter replacement resources beyond the current meter tech complement.

Another significant limitation of the “Do Nothing” scenario stems from the fact that the meter failure curve underlying it likely understates the future failure rates of meters if they are left in service. This is because Elexicon’s (and the broader industry’s) experience with large volumes of AMI meters left in service long past the manufacturers’ useful life recommendations is relatively limited. In the absence of a comprehensive industry reference dataset of old-vintage failure rates, CRA and Elexicon opted for a conservative approach, by fitting the failure curve to the current rates of failure it is experiencing, without giving it specific shape and scale parameters. As a result, the forecast of in-service failures resembles closer an asset with an expected service life of approximately 50-60 years than one that is intended to be in service for 15. The alternative of setting the shape and scale to match the industry consensus on AMI life durations without a specific dataset would be an exponentially rising failure rate that would likely look too drastic relative to the current experience. With limited lifecycle data to rely on, Elexicon opted for a more conservative option relative to both its experts’ qualitative expectations and the experience of other Ontario LDCs with extensive historical failure records.²¹ It is also worth noting that Elexicon used the same failure rate assumptions in all scenarios, to ensure that its failure expectation conservatism was applied transparently and consistently across all vendor scenarios.

Figure 13: Projected Meter Age Profile Under the “Do Nothing” Scenario



For the reasons listed above, the “Do Nothing” scenario is useful as a reference lifecycle management benchmark but is not considered a prudent long-term planning option. It retains duplicated system costs, relies on reactive replacement as the fleet ages, and creates

²¹ For example, Alectra’s most recent Distribution System Plan filed in the docket EB-2025-0252 contains an AMI business case that presents an AMI failure bathtub curve with a significantly steeper rise in failure rates post the 15-18 age bracket than what Elexicon assumed in its failure rate scenario.

increasing exposure to operational, compliance, and customer-service risk. Moreover, the implied meter demographics that the model produces make this scenario practically infeasible.

5.3.2. A note on Scenarios 2-4 modelled project deployment sequencing and cost estimation approach for solution design and development work

- a) **Why we used traditional AMI deployment sequencing for lifecycle analysis:** notwithstanding the Chapter 4 discussion on likely benefits of a “hardware-forward” deployment approach to account for various planning, financial and logistical constraints, all three vendor-led deployment scenarios are based on a conventional deployment project sequencing, where solution design and software deployment lead the project sequencing activities. Elexicon adopted this approach to modelling because it is the most practical and consistent means of comparing incumbent and new vendor deployment scenarios on an economic lifecycle basis, which does not punish the new vendor approach for not having advantages available to incumbents, where meter deployment could start substantially earlier than under a new vendor scenario (even if a simplified initial IT development set up is assumed). This assumption is revisited in the final 2027-2031 Constraints Accommodation View of our analysis, where financial, technical, and logistical considerations are synthesized.
- b) **How we estimated the cost of “IT” solution design and development work:** As the following scenario descriptions illustrate in all three vendor deployment scenarios, CRA used a consistent assumption framework for the cost of IT solution design and implementation (i.e. non-field deployment work) across all scenarios. This work typically includes technology solution design, configuration, development / deployment, testing, and implementation, which involves external vendor costs (e.g. system integrators, metering vendor professional services labour, meter installation vendor deployment labour) and eligible internal capitalized labour of Elexicon staff participating in the project. Across all vendor-led deployment options (that is all options except “Do Nothing”), CRA costed the solution development labour in monthly activity blocks of [REDACTED], or their partial increments, where the activity costs were estimated to be lower. This is a consistent bottom-up estimate developed for comparative purposes in a state of imperfect information. While the cost of each block remains the same across each scenario, the number of blocks or their fractions required to complete the development activities, and the type of development activities themselves will vary between the incumbent vendors and the third vendor.

5.3.3. Scenario 2: Consolidation to Honeywell

Under this scenario, Elexicon would consolidate its AMI environment to the Honeywell technology by replacing non-compatible meters with Honeywell A4 residential meters (or a later model), and Honeywell A4-CI commercial meters.

Consistent with the planning constraints discussion from Chapter 4, the scenario benefits from Elexicon’s existing Honeywell meter base. The model treats more than 19,000 Honeywell meters installed through recent replacement and new customer connection activities as being compatible with the upgraded Honeywell HES capabilities, meaning these meters would not require replacement during the mass rollout. This reduces both required meter replacements and sacrificed meter life relative to the other deployment pathways.

The lifecycle model assumes an approximately six-month preparatory phase to confirm AMI requirements, define deployment objectives, prepare and issue RFP materials, and initiate the project. This is followed by an approximately one-year solution design and implementation workstream, including meter configuration, network-device design and deployment,

manufacture of test meters, and factory acceptance testing. Meter deployment is assumed to begin in 2028.

A key advantage of this pathway is that meters can be deployed in a configuration compatible with Elexicon's existing Honeywell environment, with expanded AMI 2.0 functionality enabled through subsequent over-the-air upgrades. The model assumes the continuation of a status quo, where a cellular router network operating on Bell private cellular network, supported by a Honeywell Connexo head-end system and associated FACTS BI and Forge Performance+ Data Analytics capabilities.

During the transition, Elexicon would continue to operate both Honeywell and Sensus solutions until the remaining Sensus meters are replaced. This includes ongoing network infrastructure and head-end licensing costs for both systems. Because Honeywell represents approximately 73% of the current fleet, the smaller Sensus population can be replaced relatively quickly to generate additional cost avoidance. Under the five-year rollout case, Sensus meters are fully replaced in the first year of mass deployment, reducing the duration during which the duplicative dual-stack solution costs. Faster rollout options reduce this overlap further, while longer rollouts spread annual capital spending but extend the period of parallel operations.

5.3.4. Scenario 3: Consolidation to Sensus

Under this scenario, Elexicon would consolidate its AMI ecosystem to Sensus by replacing non-compatible meters with Sensus Stratus IQ+ residential meters and Aclara commercial meters. The model assumes a 20-station RF mesh base-station network, supported by the FlexNet head-end system, MultiSpeak integration, and associated annual support costs.

Today, Elexicon has approximately 4,500 Sensus meters installed through recent customer growth accommodation and reactive replacement activities that are assumed to be compatible with the upgraded AMI 2.0 future state HES configuration based on the consultation with vendors. Consistent with the Honeywell scenario assumption on compatible meter "upcycling," these meters would not require replacement during the initial rollout. However, this reusable population is smaller than under the Honeywell scenario, and the larger Honeywell meter base would need to be transitioned to Sensus-compatible meters.

This scenario assumes the same initial six-month preparatory phase and one-year design and implementation workstream as the Honeywell scenario. This includes requirements development, RFP preparation, vendor configuration, network design, test-meter manufacture, and factory acceptance testing. Meter deployment is assumed to begin in 2028.

Relative to Honeywell, the Sensus pathway requires replacement of a larger share of the existing meter fleet and establishment of a broader communications network through the construction of bases. It also extends the period of dual-system operation because Honeywell represents the larger share of Elexicon's current AMI fleet. Under the five-year rollout case, Honeywell meters are not fully replaced until the third year, which means that the Honeywell RF canopy needs to remain in place until the last meter is turned off. Considering the age of current Honeywell Gatekeeper network devices, the scenario replaces half of them at the outset, relative to the "Consolidation to Honeywell": scenario where they will be expected to remain in service. The Sensus scenario therefore represents a viable incumbent-vendor consolidation pathway, but with fewer reusable meters, greater infrastructure requirements, and a longer transition period than the Honeywell scenario.

5.3.5. Scenario 4: Transition to a Third-Party Vendor

Under this scenario, Elexicon would procure and deploy an AMI 2.0 solution from a new vendor. This would require a full transition to a new meter, communications, head-end, and enterprise-system environment, including integration with the Customer Information System (CIS), the ODS and other parts of Elexicon's SAP ecosystem. Unlike the incumbent-vendor pathways,

the third-party scenario assumes that neither the Honeywell nor Sensus meter population would be compatible with the selected platform. As a result, all existing meters would ultimately need to be replaced, including recently installed meters with remaining useful life. The model uses generic meter costs based on an average of Honeywell and Sensus inputs to isolate the lifecycle implications of a full technology transition rather than assume a specific third-party vendor price. For the network design and lifecycle costs, this scenario also relies on the average of the current Honeywell and Sensus scenario assumptions.

The scenario includes the same types of early requirements definition, RFP preparation, vendor evaluation, and project initiation activities as the incumbent-vendor pathways. However, it assumes a considerably longer and more labour-intensive implementation period because the selected platform would not extend either existing AMI environment. Additional work would be required for solution configuration, head-end implementation, communications and network design, MDM and enterprise-system integration, data migration and validation, cyber security review of a net new solution, field testing, operating procedures, and workforce training. The model therefore assumes that meter deployment begins in 2029.

Before the new platform is operational and the legacy systems can be retired, Elexicon would continue to operate both existing AMI solution stack in their entirety and incur normal-course lifecycle management costs and unavoidable asset replacement expenses, including a portion of the Honeywell aged Gatekeepers. Reactive replacements and new customer installations during this period would continue to use legacy-compatible meters and could require replacement again during the third-party rollout. This creates additional sequencing risk and transition complexity relative to an incumbent-vendor consolidation path.

The third-party scenario is included as a reference point for assessing whether the potential functionality, commercial terms, or long-term strategic value of a new vendor solution could justify the added implementation effort and full-fleet replacement requirement.

5.4. Key Model Inputs and Cost Components

The AMI 2.0 model applies a common set of assumptions across all scenarios to support a consistent comparison of lifecycle cost, deployment-period cost, and net present value. The model projects costs from 2026 through 2047 and incorporates meter population growth, inflation, meter failures, compliance-driven replacements, and the timing of AMI 2.0 deployment activities.

Table 3: Key AMI 2.0 Model Inputs

Input	Assumption	Role in the Model
Planning period	2026–2047	Establishes a consistent long-term period for comparing deployment and ongoing operating costs.
Annual meter growth	1.46%	Increases the residential and C&I meter population over the planning period and drives new customer meter installations.
Inflation rate	■	Escalates future hardware, labour, software, maintenance, and other cost inputs.
Discount rate	6.46%	Used to calculate NPV and compare scenarios with different timing of expenditures.

Input	Assumption	Role in the Model
Meter useful life	15 years	Supports the assessment of remaining meter life and the sacrificed meter life metric.
Existing meter population	Approximately 180,000 meters	Establishes the starting fleet by meter type and incumbent vendor.
Honeywell-compatible meters	Approximately 19,600 meters	Reduces the number of meters requiring replacement under the Honeywell consolidation scenario.
Sensus-compatible meters	Approximately 4,600 meters	Reduces the number of meters requiring replacement under the Sensus consolidation scenario.
Deployment durations	5, 8, and 10 years	Tests the cost and execution implications of faster versus more gradual deployment.
IT implementation timing	Earlier and delayed timing cases	Tests the trade-off between earlier AMI 2.0 functionality and deferring enterprise-system investment until a larger meter population is operational.

The model captures six primary cost categories across each scenario:

Table 4: AMI 2.0 Model Cost Components

Cost Category	Key Components Included	Primary Scenario Drivers
Residential meters	Meter hardware, AMI 2.0 functionality adder, installation, storage and removal, and reactive replacement costs	Number of residential meters requiring replacement; compatible meters retained; rollout duration; new customer growth
C&I meters	C&I meter hardware, installation, storage and removal, and reactive replacement costs	Number and type of C&I meters requiring replacement; compatible meters retained; rollout duration
Communications and infrastructure	Network devices, routers, base stations, installation, and decommissioning of legacy infrastructure	Selected vendor platform and network architecture; number of required routers or base stations; timing of legacy-system retirement
Software, licensing, and maintenance	Head-end system licensing, communications, network operations, cyber security or resilience support, analytics, and ongoing vendor support	Duration of parallel Honeywell and Sensus operations; timing of migration to a single platform; vendor-specific system requirements

Cost Category	Key Components Included	Primary Scenario Drivers
Development and implementation	Preparatory work, requirements definition, RFP support, meter configuration and testing, solution design, enterprise-system integration, customer communications, and call-centre support	Vendor transition complexity; implementation timeline; IT deployment timing; deployment duration
Reverification and compliance	Reverification testing, compliance fees, labour, truck costs, and related meter work	Number of meters with expiring seals; share of meters reverifying rather than being replaced; timing of planned AMI 2.0 deployment

For the purposes of estimating the cost of meter installation, removal and disposal, Elexicon consulted several Ontario utilities undergoing active AMI 2.0 deployments and engaged one of their vendors to validate the directional consistency of its internal estimates of unit costs, disposal fees and the percentage of Return to Utility (RTU) cases where an installation attempt is unsuccessful due to access, or electrical safety issues and a return trip is required, potentially involving a registered electrician. While CRA and Elexicon are cognizant that Meter installation Vendor (MIV) costs can vary considerably with the length of deployment, staging approaches across its non-continuous service territory and the actual share of RTU installation cases encountered, it was able to validate the directional consistency of its assumptions for the purposes of this model.

The model also estimates sacrificed meter life. This metric reflects the remaining useful life of meters that are removed before the end of their expected service life as part of a planned AMI 2.0 rollout. It is not treated as an incremental cash expenditure. Instead, it provides an additional measure of the economic trade-off between retaining compatible existing assets and accelerating fleet replacement.

5.5. Development and Implementation Costs

Development and implementation costs are modelled separately from meter, infrastructure, and ongoing software costs because they reflect the work required to design, configure, test, and implement the selected AMI 2.0 solution. These costs include early planning and procurement activities, meter configuration and testing, system design, enterprise-system integration, data migration, cyber security review, field testing, workforce training, customer communications, and deployment support. As noted above ahead of Scenario 2 discussion, CRA applied different number (or fractions) of standard monthly effort blocks for these activities. In estimating this amount and determining how many full or partial effort blocks are required across the three vendor scenarios, CRA relied on its research and consultation with peer utilities with experience of implementing different AMI vendor solutions under different circumstances (e.g. first-time deployment of AMI, vs. migration from an older solution to the second-generation stack).

All three AMI 2.0 pathways include a common initial preparatory phase, including requirements definition, RFP development, vendor evaluation, and project initiation. Development costs then increase where a scenario requires greater meter configuration, broader infrastructure design, or more extensive integration work to establish a new technology environment.

Table 5: Development and Implementation Cost Assumptions

Development Cost Component	Honeywell	Sensus	Third Vendor
Preparatory work			
Meter configuration, testing, and manufacture			
IT systems design, build, testing, and deployment			
Total development and implementation cost			

Several inputs differ by scenario because each pathway has a different starting point and transition requirement. The Honeywell scenario retains the largest compatible meter base and

requires replacement of comparatively fewer existing meters. The Sensus scenario retains a smaller compatible meter base and requires a larger share of the current fleet to transition to the Sensus platform but employs a network technology that is generally viewed as being easier to configure. The third-vendor scenario requires replacement of all existing meters because neither incumbent meter population would be compatible with the new vendor's head-end system. It also includes additional implementation time and infrastructure requirements associated with establishing a new technology environment.

The model uses available Honeywell and Sensus information as indicative cost inputs in advance of the competitive procurement. For the third-vendor scenario, common or composite cost assumptions are applied where vendor-specific pricing is not yet available. The results should therefore be interpreted as a comparison of the relative lifecycle economics and transition requirements of each pathway, rather than as final vendor-specific cost estimates.

5.6. The Timing of IT Development Work within the Deployment Schedule

The existing meter population demographics is an important driver of deployment economics results. The number of Honeywell and Sensus meters currently in service, as well as the share of meters that may be compatible with an upgraded platform, affects the number of meters that must be replaced under each scenario. It also affects the duration for which Elexicon would need to maintain two legacy AMI environments during the transition.

The model considers alternative timing for IT and enterprise-system investments needed to enable the full functionality of AMI 2.0. Completing these investments earlier may allow Elexicon to begin using advanced capabilities sooner and reduce the need for interim processes. However, it requires Elexicon to incur those costs before a substantial share of the new meter fleet is operational. Delaying IT investments may better align costs with the scale of deployment but could defer functionality and delay realization of some AMI 2.0 benefits.

5.7. Comparison Metrics and Deployment Sensitivities

For each scenario, the model estimates costs annually over the 2026 to 2047 planning period and aggregates those results into total lifecycle cost and net present value. The scenarios are compared using three primary measures:

- **Total lifecycle cost**, which captures the full cost of each pathway over the period.
- **Net present value**, which discounts future costs to reflect the time value of money and enables comparison of options with different cost timing profiles.
- **Deployment period capital cost**, which showcases the nominal cashflows of the capital costs over the relevant deployment timeframe.

For the AMI 2.0 deployment scenarios, the model evaluates five-, eight-, and ten-year rollout periods. A shorter rollout may reduce the period during which Elexicon must operate legacy AMI systems in parallel and may enable AMI 2.0 functionality sooner. However, it requires higher annual deployment volumes, greater near-term capital spending, and more intensive field execution. A longer rollout can pace the expenditures over a greater number of years, but may extend duplicated system costs, delay full functionality and customer experience consistency, and prolong the transition risk, as older generations of hardware may gradually become unsupported and/or feature less capabilities than the latest versions of meters used in the later years. The model also estimates sacrificed meter life as an additional economic-efficiency indicator. This metric captures the remaining service life of meters that are retired before the end of their expected useful lives. It is not treated as an incremental cash cost but offers an important economic analysis dimension to help distinguish between scenarios that preserve more existing asset value and those that require broader premature replacement.

6. RESULTS AND FINDINGS

6.1. Lifecycle Analysis and Sacrificed Life Results

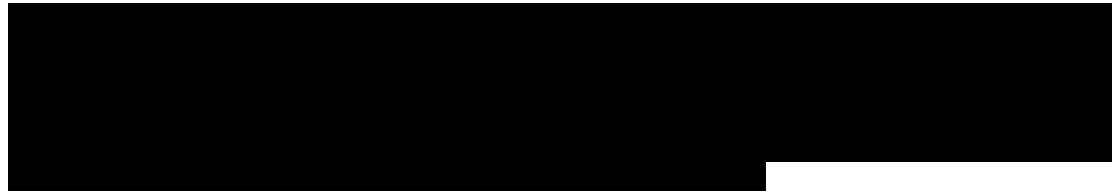


Table 4: Lifecycle NPV by Deployment Duration

Scenario	Do Nothing	5-Year Rollout	8-Year Rollout	10-Year Rollout
[REDACTED]	\$33.6M	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]		[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]		[REDACTED]	[REDACTED]	[REDACTED]

Note: Results reflect the model's indicative pre-RFP inputs and exclude sacrificed meter life from the NPV totals.

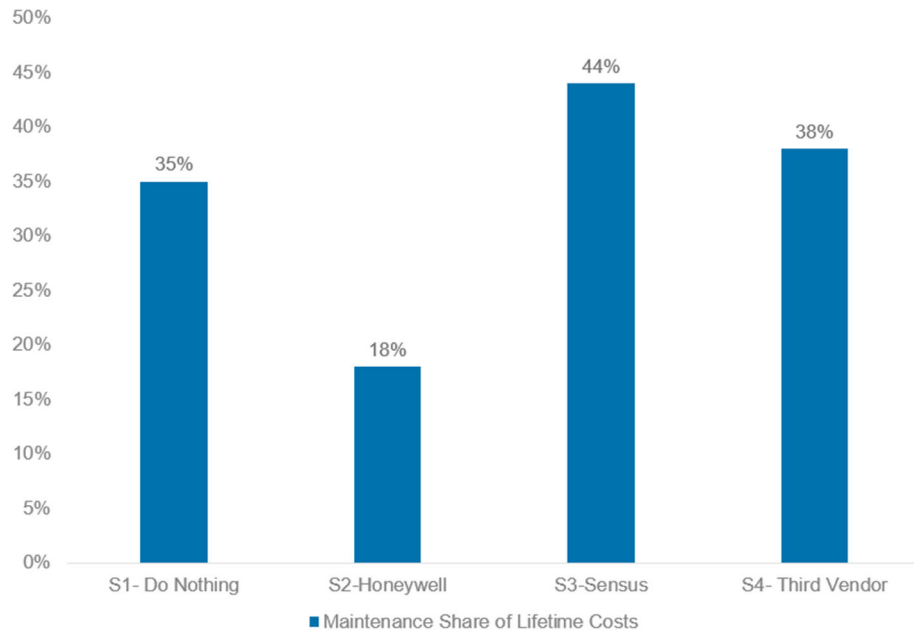


The “Do Nothing” Scenario

The Do-Nothing case produces the lowest NPV of all scenarios, with a lifecycle cost estimate that is slightly less than half of the next lowest-cost scenario. As discussed earlier in the document, the primary purpose of the “Do Nothing” scenario is to serve as a baseline reference for other scenarios, given that the modelled outcomes cannot be practically replicated in real life. While reactive asset replacement can be a viable asset management strategy for several different asset classes, Advanced Metering it is not one of those asset classes, and the implied survival of meters to nearly 40 years under this scenario runs counter to the industry consensus discussed at the outset of this business case.

Moreover, Ellexicon’s modelled failure rate over time is almost certainly understated due to its highly conservative assumption grounded in limited local data, with the only other alternative being a highly aggressive assumption of failure rates that was not based on Ellexicon’s own service territory. The analysis also relies on a flat emergency truck roll cost estimate that is based on the current volumes of failures, which can be absorbed by internal crews. If the failure incidences continued to increase – it is possible that replacement response economics would change as well, by requiring overtime spend, retaining contractors, or other cost structure shifts

Figure 14: OM&A Share of Lifecycle Costs Across Vendor Scenarios

[illegible]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]

[REDACTED]

6.2. Deployment Period Capital Cost Forecast

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

6.3. 2027-2031 Constraints Accommodation View

The final dimension of our analysis consolidates the economic, financial, technical and logistical views by exploring their net effect under the lens of Elexicon’s operating and planning realities in Chapter 4, including, most notably, the budgetary constraints, the expected changing state of Elexicon’s IT and OT systems during the 2027-2031 upgrades, and the availability of IT / OT staff to take on the mandatory portions of solution design work that cannot be deferred.

Consistent with the earlier version of this business case featured in Elexicon’s 2027-2031 Distribution System Plan (DSP), the utility’s budgetary process has resulted in an allocation of approximately [REDACTED] for the AMI project over the 2027-2031 timeframe. CRA understands that the leadership’s direction regarding this number has not changed from the time of the prior version being produced. [REDACTED]

[REDACTED]

[REDACTED]

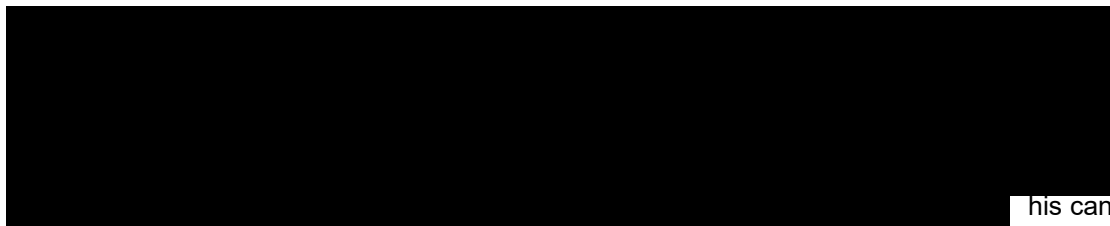


This means that the bulk of solution development work can occur years after the field deployment of meters commences – delivering the desired balance of addressing the aged and failing field infrastructure, while pacing the information systems upgrades and downstream integrations until after the Dx NEXT, the ESB and the ADMS projects (among others) are completed. The only aspect of the initial solution design that cannot be deferred under any vendor solution is the review of options and finalization of the meter design specifications. This step is required to explore whether and which hardware features Elexicon would like to make standard in their design going forward and outline the primary configuration of the additional channels and set the base thresholds on the measurement devices within the meter. Among the optional hardware pieces that Elexicon may consider getting are:

- Remote connect / disconnect switches
- Physical meter reset button to assist field crews in reactive troubleshooting
- Momentary outage ride through capacitors that delay the Last Gasp signal
- Larger memory chips for longer information storage
- Other features as may be offered by vendors

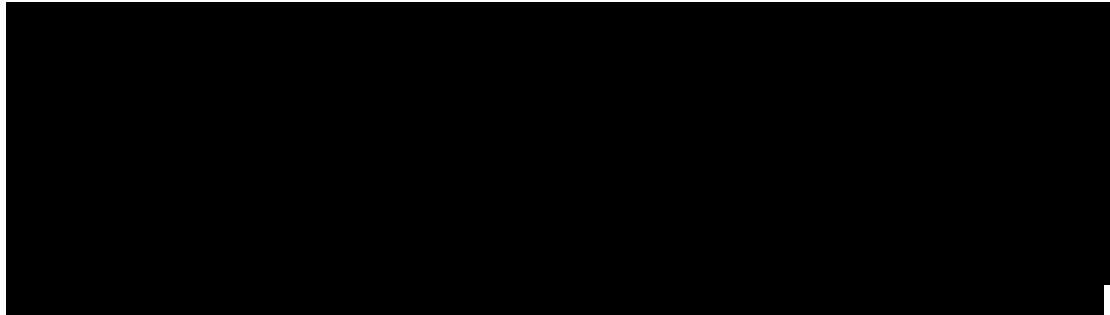
After the new meter configuration is completed for both the meters and the network devices, the vendor manufactures several sample meters and devices to the selected specs, and a First Article Test (FAT) is completed to ensure that everything matches the selected specifications. This can occur in the field or at the vendor's manufacturing facility. Based on Elexicon's consultations with peer utilities, the meter set-up and FA process can take as little as two-three months and involve relatively light expectations from broader organizational stakeholders (IT, OT, Operations, Planning, Asset Management, and Regulatory).

For the incumbent meter vendors that are already integrated into Elexicon's everyday Meter to Cash and related workflows, other solution design steps can be deferred due to the presence of the legacy compatibility mode that can enable it to swap the meters that would continue operating in the same manner as the legacy units until the switch to a new platform (which can occur sector by sector) is initiated after the overall AMI 2.0 solution and integrations are designed, developed and tested.



be tested during the competitive procurement stage.

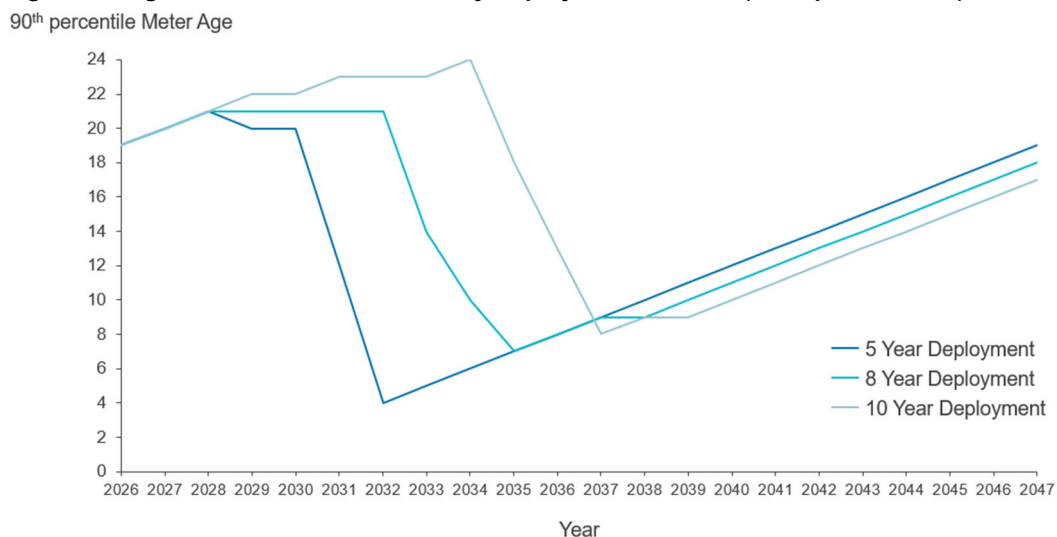
6.4. The Deployment Duration Options



Under the five-year scenario, a larger part of the deployment would coincide with Elexicon's IT and OT work execution. While we do not believe that this would create any major scheduling tension during the 2027-2031 period under the execution assumptions laid out above, the larger portion of the meters deployed sooner would put greater pressure on Elexicon to move faster to transition the system to the AMI 2.0 mode. This could potentially reduce the desired flexibility for solution design and integration work planning in the event that one or more projects (either those led by IT or the AMI project) were potentially delayed. Moreover, the five-year deployment scenario has the highest sacrificed life on the nominal basis under any scenario, since more meters would be removed from service before their useful lives are expended. A notable upside of the five-year scenario would be the fact that the meter population would be more internally consistent, as CRA expects there to be more incremental models developed during the longer scenarios. However, the higher concentration of deployment capital cost would result in a higher rate impact and more pressure on Elexicon's capital envelope.

Turning to the other extreme – the main advantage of the 10-year program deployment is pacing, with the lowest annual capital outlays under any scenario and the lowest sacrificed life.

Figure 15: Age Outlier Reduction Effect by Deployment Timeline (Example Scenario)



At the same time, the key disadvantage of a 10-year deployment is the implied spread in demographics that it produces. By the time the last meter is deployed in Year 10, the first meter deployed in the project is already through two-thirds of its lifecycle. Considering the speed at which new meter models have been emerging across the vendors, CRA sees a substantial long-term solution compatibility risk where vendors could be reluctant to support the oldest

offerings (especially where they constitute a relatively minor portion of the overall asset based served by a given vendor).

Beyond the AMI ecosystem itself, compatibility issues can also arise with Elexicon's future solution design choices or mandatory vendor-driven upgrades for its CIS or other systems with which the AMI solution is integrated. Similarly, a ten-year deployment plan would introduce more uncertainty associated with Meter Installation Vendor contract provisions and force Elexicon to essentially be in a steady-state of constant meter replacement with relatively short breaks in the middle, and potentially significant operating costs to keep the versions divergence harmonized to maintain the requisite network performance as the telecom capabilities evolve between older and newer meters. Finally, and as shown in Figure 15, the ten-year rollout period pushes the age of the oldest in-service meters beyond the point of Elexicon's confidence in their ability to operate as intended in the remaining magnitudes.

Based on these considerations, an eight-year rollout offers a compromise middle ground that smooths out the clustering of meter deployment peak years, without stretching the deployment too far to create a version consistency risk within the replaced population. Subject to any further insights to emerge in either the meter vendor or the Meter Installation Vendor (MIV) competitive procurement processes, CRA concludes that an eight-year deployment period is an optimal duration under Elexicon's operating circumstances.

The following chapter summarizes our conclusions into a set of concrete recommendations.

7. RECOMMENDATIONS

Based on the combination of current state evidence presented at the outset of this business case and the economic and financial analysis completed towards its conclusion, the following are CRA's recommendations for further actions on the part of Ellexicon.

1. Plan for an eight-year AMI 2.0 deployment period commencing in 2028 based on the optimal trade-offs between sacrificed life, future replacement pacing, and the population demographics spread risks.
2. Prioritize a meter-forward investment strategy through approximately 2031, maximizing value from new network and communications infrastructure while advancing meter replacement activities as required.
3. Move forward with an AMI technology vendor and meter installation vendor RFP in 2028 with the objective of selecting a single long-term AMI stack provider. Among other objectives, the procurement process should be used to validate the solution migration assumptions and stress test the lifecycle cost implications of each bid beyond the immediate capital costs, while allowing for additional market, operational, and technology learnings to be incorporated as they emerge.
4. To make the RFP process most effective, conduct a comprehensive requirements gathering exercise involving all relevant internal and external stakeholders, producing a detailed requirements document laying out Ellexicon's current and future state IT/OT infrastructure, the demographics of its current AMI system and its preferences in terms of the manner and timing of the transition, along with the discussion of its long-term plans regarding advanced AMI 2.0 use cases. Consult with the following parties at a minimum:
 - Information and Operations Technology
 - Customer Care
 - Rates and Regulatory Affairs
 - Control Centre and Field Operations
 - Engineering and Asset Management
 - The Independent Electricity System Operator (MDM/R)
 - Core IT and OT vendors (SAP, Savage, the ADMS / DERMS / GIS vendors, etc.).
5. Continue collecting and analyzing meter performance, failure, and asset condition data to support asset lifecycle planning, deployment sequencing, and future replacement prioritization across the service territory.
6. Continue advancing future-state planning for data, analytics, and systems integration capabilities to ensure the AMI solution selected through the RFP process can support Ellexicon's evolving operational, customer, and grid modernization requirements. Specific technology, architecture, and deployment decisions should be deferred until vendor solutions have been evaluated through the procurement process.
7. Maintain strategic flexibility between now and the RFP outcome, recognizing that vendor roadmaps, interoperability capabilities, implementation approaches, and industry experience will continue to evolve. The final AMI transition strategy should incorporate these learnings and be informed by the results of the competitive procurement process.

8. KEY RISKS AND CONSIDERATIONS

The analysis and recommendations presented in the preceding chapters are based on CRA's best available information about vendor economics, project sequencing, and the operating and planning realities of the 2027-2031 rate period. Like any capital plan of this scope and duration, the recommended path forward carries a set of risks the materiality of which depends on factors that are partly within Elexicon's control and partly not. This chapter identifies the risks that CRA considers most material to the successful execution of the AMI 2.0 program next steps and outlines the current mitigation approach to each.

The risks discussed here are not intended to be exhaustive, but rather to represent the categories that have the most direct bearing on the recommendations in Chapter 7 and the sequencing of the workstreams described in Chapter 6.

8.1. Vendor Concentration Perception Risk

Other factors notwithstanding, Elexicon's two incumbent AMI vendors have a natural advantage in the form of existing solution stacks that have worked as intended over a generation of AMI technology. While Elexicon is motivated (and CRA is supportive) of conducting an open market RFP involving the maximum feasible number of qualified vendors, there will be natural structural advantages available to the incumbents, including the familiarity with the existing Elexicon IT and OT environment, an understanding of the telecom network topology, its seasonal performance issues, and other natural advantages enjoyed by technology incumbents. Given these advantages, there could be a *perception risk* that Elexicon's RFP would not be optimally suitable for broad market competition. However, CRA believes that this risk is actually substantially lower for Elexicon than the majority of Ontario distributors whose first-generation AMI systems were supported by a single incumbent.

The two-vendor competitive dynamic between Honeywell and Sensus has a higher probability of reducing either incumbent to extract concessionary pricing during the RFP, since each has a comparably situated competitor at the table (which is different from all single-incumbent RFPs). Moreover, the invitation for participation of non-incumbent vendors further reduces this dynamic by preserving the possibility that a third solution could re-enter consideration if the incumbent bids come in materially above the pre-RFP estimates or if either incumbent introduces terms that Elexicon considers unacceptable. Beyond the RFP itself, CRA recommends that Elexicon seek to negotiate specific contractual protections against out-of-cycle pricing changes, roadmap deviations that would compromise the transition path, and vendor support commitments over the initial deployment period.

8.2. RFP Outcome Risk: Bid Divergence from Pre-RFP Cost Estimates

The lifecycle cost, deployment period capital cost, and sacrificed meter life results presented in Chapter 6 are based on the latest vendor pricing information that Elexicon was able to obtain for CRA's modelling, adjusted for its specific meter volumes and network requirements. While CRA is confident in the directional accuracy of these estimates for scenario comparison purposes, the actual bid prices that emerge from the RFP could differ materially from the modelled inputs. Vendors may bid at a premium relative to their current pricing to reflect the expected scale of the deployment, the complexity of the migration path, or contemplated changes to their product lines and support arrangements. Conversely, vendors may bid below current pricing to secure the incumbent-territory expansion or the retention of an existing customer at a critical inflection point.

The magnitude of this risk is bounded

[REDACTED] However, it is possible that a total AMI 2.0 program cost may exceed the modelled estimates once the RFP concludes, and the recommended eight-year deployment structure has been selected in part to preserve flexibility in the annual capital profile if the total cost lands materially above the pre-RFP range.

CRA recommends that Elexicon update the lifecycle cost and capex deployment model modules with formal vendor quotes at appropriate stages of the RFP, both to support internal deliberations and to inform the eventual contract negotiations. The model is designed to remain useful throughout this process rather than to be superseded by the RFP results.

8.3. Foundational IT and OT Project Timing Risk

The recommended AMI 2.0 scoping and sequencing depends on assumptions about the timing and completion of Elexicon's concurrent foundational IT and OT projects, most notably Dx NEXT Phase 2 (2027), and the Enterprise Service Bus, GIS system upgrades, Advanced Distribution Management System, and Distributed Energy Resource Management System (all 2031). The deferral of the AMI 2.0 technology solution design and implementation work to the 2032-2036 rate period is predicated on these systems being sufficiently designed, deployed, and stabilized by the time the AMI 2.0 solution design begins in earnest. Material delays in any one of these projects would compress the design and stabilization window for that system and, by extension, could affect the readiness of the AMI 2.0 solution design work that is scheduled to integrate with it.

The materiality of this risk varies across the counterparty systems. Dx NEXT Phase 2 is closest to completion and carries the least sequencing risk relative to the AMI 2.0 program. The ADMS, DERMS, ESB, and GIS upgrades are further out and carry more sensitivity to project execution challenges of the kind that any utility of Elexicon's size can experience during a period of concurrent major investment. CRA proposes to monitor the delivery progress of each of these projects through its standard integrated planning processes, and to reflect any material changes to their expected completion timelines in the assumptions underlying the incremental AMI 2.0 business case that will be brought forward in the 2032-2036 rate period. In the interim, the operating mode of the deployed meters and network infrastructure provides a natural buffer: because the meters are expected operate in a compatible configuration with the existing head-end systems for years after their initial deployment, delays in the counterparty systems do not compromise the core Meter-to-Cash function or the continued operation of the AMI ecosystem.

8.4. AMI 1.0 to 2.0 Transition Execution Risk

Under the recommended incumbent-vendor-centric deployment path, newly installed meters are configured to be compatible with the corresponding legacy AMI 1.0 head-end system for the initial period of their service lives, then transitioned to full AMI 2.0 functionality through over-the-air firmware upgrades once the AMI 2.0 solution design work is complete. This approach is central to the sequencing that Chapter 4 describes as the resolution of the planning realities that Elexicon faces in the 2027-2031 rate period. However, remote upgradeability at scale carries its own set of execution risks that Elexicon should not understate.

Firmware transitions of the scale contemplated by the AMI 2.0 program will inevitably encounter individual meters that do not switch cleanly, whether due to firmware anomalies, incomplete configuration changes, or edge-case interactions with the local mesh or cellular network conditions. In such cases, the affected meters may require follow-up over-the-air signals, field intervention by Elexicon meter technicians, or, in the most complex cases, in-person configuration or replacement. Beyond individual-meter conversion issues, the transition of a

substantial share of the fleet from AMI 1.0 to AMI 2.0 operating mode carries some risk to network stability, meter data continuity, and the timing of realized benefits from the new solution.

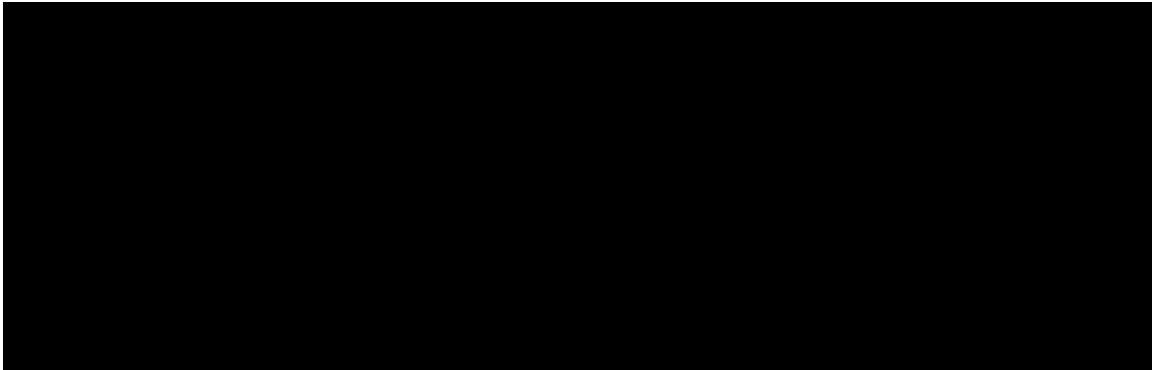
Elexicon's mitigation approach will rest on a combination of vendor-provided assurances (to be further explored and formalized in the RFP), staged deployment planning, and internal readiness. Both incumbent vendors claim prior experience with large-scale over-the-air firmware transitions and are expected to provide detailed transition plans as part of the RFP response. CRA recommends that Elexicon validate these plans against the experience of peer utilities that have completed similar transitions, and to structure the transition itself in geographically manageable phases with defined success criteria before proceeding to the next phase. In the event of individual-meter or subnet-level conversion issues, CRA expects Elexicon to rely on its established field response capabilities to complete the transition on a case-by-case basis, and to negotiate specific vendor support commitments for the transition period.

8.5. Cyber Security Exposure During the Extended Transition Period

Chapter 3 lists cyber security risk management as one of the supporting drivers for near-term action on AMI 2.0 deployment.



CRA views this risk as manageable but material. The mitigation approach options to be explored further combines several elements:



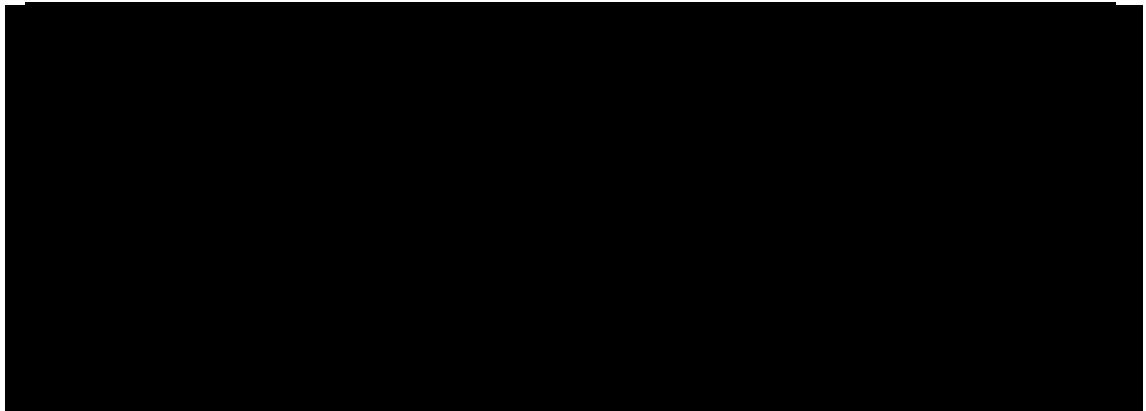
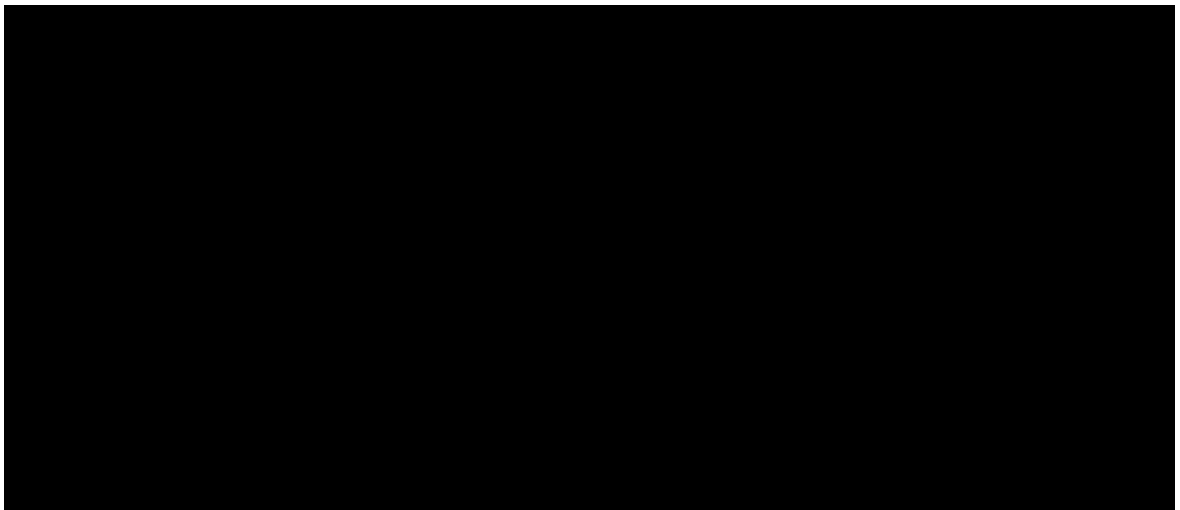
The risks discussed above are the categories that CRA considers most material to the successful execution of the AMI 2.0 program as recommended. In each case, the proposed mitigation is either already embedded in the recommended path forward or is scoped to be executed through the RFP process or the preparatory activities ahead of it. At present, CRA does not view any of these risks as sufficient to alter the recommendation set out in Chapter 7. However, it views the explicit identification, monitoring, and management of these risks as part of the responsible execution of a program of this scope.

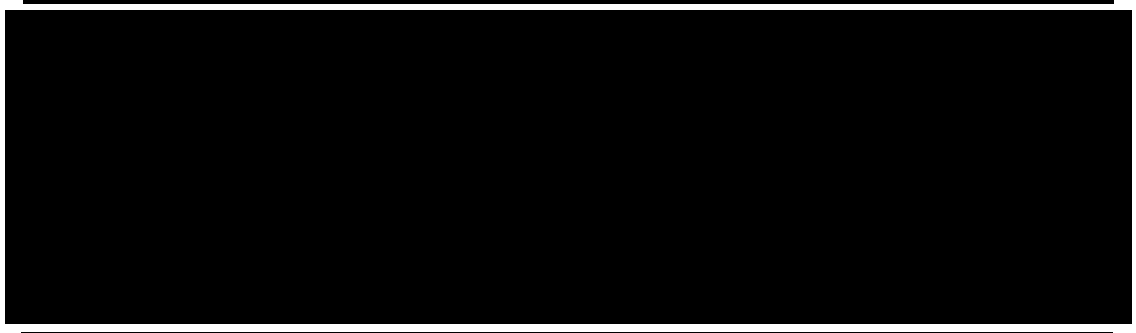
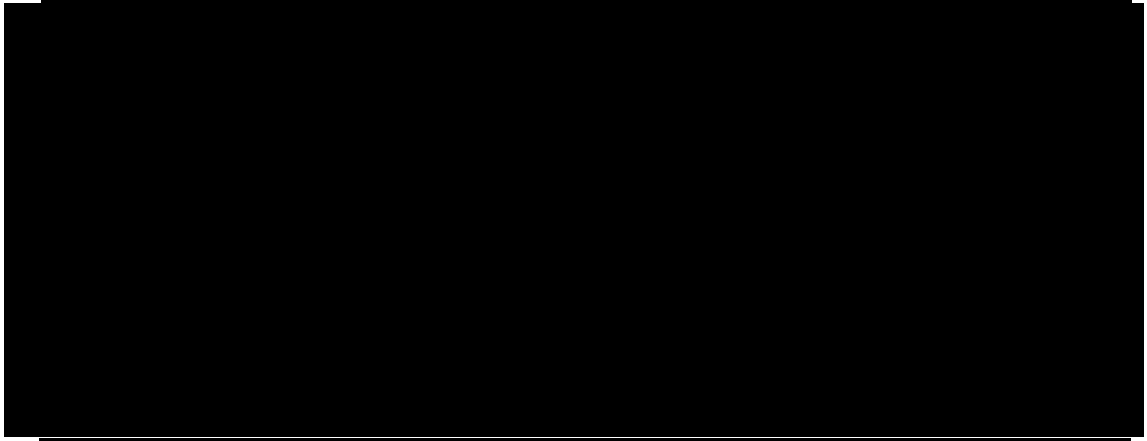
9. NEXT STEPS

This concludes this iteration of Elexicon's AMI 2.0 business case. CRA thanks Elexicon staff and executive leadership for their extensive support and collaboration during the planning, research, modelling, and validation stages of this business case development work. It is CRA's firm belief that Elexicon is well positioned to proceed to the detailed solution requirements stage ahead of the recommended competitive procurement process and has both clear and realistic expectations of the desired AMI 2.0 solution's key features, pivotal cost drivers, and the type and amount of work that lies ahead. We wish Elexicon success as it continues its progress towards a unified, modern and pragmatically delivered AMI 2.0 solution.

10. Appendix A: Ellexicon Meter to Cash Data Flow







11. Appendix B: About the Authors

Principal Author: Dmitry Balashov, Principal

Location: Toronto, ON

Dmitry is a Principal in CRA's Energy Practice. He provides grid modernization, regulatory strategy, and infrastructure planning advice to utility leaders and financial sector clients across North America. Dmitry brings 18 years of electricity sector experience, which spans progressively senior roles in municipal and investor-owned utilities, government energy policy development agencies, and management consulting. Prior to joining CRA, Dmitry was a Senior Director of Grid Modernization at an investor-owned utility with operations in more than 10 U.S. states, where his role included operational and strategic oversight of the subsidiaries' Advanced Metering deployment projects in Missouri, Kansas, Arkansas, Oklahoma, California, New Hampshire, and Georgia. In this capacity, he also testified in front of the Missouri Public Service commission in support of that state's first EV charging pilot where the utility was allowed to own the behind-the-meter charging infrastructure.

Across several earlier consulting and internal utility staffer roles, Dmitry led and contributed to multiple planning, rate application, and policy commentary submissions to the Ontario Energy Board. He also testified in front of public utility regulators in Missouri, New Hampshire, Kentucky, New York, and Manitoba. Dmitry holds an MBA from the Rotman School of Management at the University of Toronto, an MPA from the School of Policy Studies at the Queen's University, and a BA from the University of British Columbia.

Modelling Lead: Hana Colwell, Associate Principal

Location: New York, NY

Hana is an Associate Principal in CRA's Energy practice, with extensive experience in complex economic and financial analysis, including valuation of the socioeconomic and environmental impacts of electricity sector projects. She has supported electric utility M&A due diligence engagements, assessing how input price changes, labor outcomes, and other factors affect utilities' OM&A trajectories, and has reviewed regulatory frameworks and deferral and variance account structures. Hana has previously supported successful major client grant applications for AMI 2.0 and Distribution Automation projects to the U.S. Department of Energy, where she led financial analysis and contributed to program planning and budgeting.

Hana also brings deep expertise in macroeconomic and socioeconomic analysis, having led economic impact assessments for major energy and industrial projects, as well as regulatory reviews, environmental impact statements, and electricity market studies for public advocacy groups and private sector clients. Hana's work in Ontario included research and modelling work for Non-Wires Solutions Screening and Benefit-Cost Analysis, along with several confidential investor due diligence projects. Hana holds an MSc in Environmental Economics and Climate Change from the London School of Economics and a BS in Resource Economics from the University of Massachusetts Amherst.

Industry Research & Business Analysis Lead: Alexander Vanderhoof, Consulting Associate

Location: Toronto, ON

Alexander Vanderhoof is a Consulting Associate in CRA's Energy Practice. He has supported with federal agencies, infrastructure owners and operators, financial institutions, and utilities on projects including economic evaluations of capital investments, transaction due diligence, development of strategic business plans, and analysis of key aspects of clean energy. His expertise spans the economic evaluation of energy transition investments, electrification strategy, and grid modernization more broadly. Alex has contributed to numerous engagements across the power and energy sector and co-authored publications on clean energy and grid transformation. In his Ontario-focused work, Alex supported Non-Wires Solutions (NWS) screening and Benefit Cost Analysis work, along with various public policy research and confidential due diligence initiatives. Alex holds an M.A. in Economics from the

University of Toronto and a B.A.H. in Applied Economics with a minor in Classical Studies from Queen's University.

Technical Project Planning and System Design SME: Bryce Baker, Senior Consultant

Location: Toronto, ON

Bryce Baker supports CRA's Advanced Metering, Grid Modernization and Cyber Security-related projects as a Senior Consultant, with extensive experience and deep expertise in technology project planning, project management, and technical solution design. Bryce has led and supported more than 10 first- and second-generation Advanced Metering deployment and upgrade projects in Ontario and multiple U.S. states, across electricity, natural gas, and water commodities. Bryce holds a BAA in Urban and Regional Planning from the Toronto Metropolitan University and a Masters Certificate in Project Management from the Schulich School of Business at the York University.