APPENDIX 2-A

ASSET MANAGEMENT PLAN

E.L.K. ENERGY INC.

Distribution Asset Management Plan 2012-2032

E.L.K. Energy Inc.
Distribution Asset Management Plan
September 2012

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1 SUMMARY

1.1 The Purpose of the Plan

The purpose of this Distribution Asset Management Plan (DAMP) is to outline how E.L.K. Energy Inc. (E.L.K. Energy) will develop, manage, and maintain its distribution system equipment to provide a safe, reliable, efficient, and cost effective distribution system.

The DAMP identifies the major initiatives and projects to be undertaken over the planning period to meet customer and stakeholder requirements. Preparation of the DAMP in this format is intended to supplement E.L.K. Energy's rate application for 2012 distribution rates to the Ontario Energy Board (OEB).

1.2 Historical Perspective

When E.L.K. Energy was formed in 2000 by merging Essex Hydro, Lakeshore Hydro and Kingsville Hydro there were three separate informal asset management plans in place. A plan was quickly drafted to improve system reliability by converting 4.16kV distribution systems to 27.6kV.

The first station converted was a station leased from Hydro One that was approaching end of life. This work was completed in 2001. Two additional stations were converted concurrently and were completed in 2003 as they reached their end of life.

Hydro One approached E.L.K. Energy about an overload condition at their Cottam DS which served E.L.K. Energy's Cottam service area. E.L.K. Energy's options were to receive a second 8.32kV feeder from another DS and add a second primary metering point for eight hundred customers or Hydro One would provide a 27.6kV feeder. After reviewing the options and the service reliability indices for the service area it was determined a complete conversion of the service area to 27.6kV was the best option. The conversion then had a double benefit – Hydro One's distribution station would not be overloaded and at the same time the distribution lines would be upgraded or rebuilt giving new life to the distribution system. This work commenced in 2005 and was completed in 2011.

The final station conversion was completed the summer of 2012. E.L.K. Energy now has no distribution stations and serves their customers at 27.6kV with the exception of one service area that is fed from two Hydro One 8.32kV distribution stations

1.3 Period Covered

The planning horizon of the DAMP is from 2012 to 2032. It is intended that the DAMP will be reviewed on a periodic basis.

The planning horizon extends for a twenty (20) year period. This period was selected to match Thunder Bay Hydro's benchmark, which was disclosed in an Electrical Distributors Association (EDA) Operations Council Forum on May 9, 2008 – "Asset Management for LDC's - Getting the

Plan Right from Conception to Completion". The main focus of the plan is 2012 as the budget for this year has been developed. A high level plan has been established for 2013 and beyond and analysis tends to be more trend-related and based on asset end of life rates as detailed in the Asset Condition Assessment. The Asset Condition Assessment is based on a planning horizon of twenty (20) years and predicts the sustainment of assets through to 2032.

It is very likely that new developments, that are not identified here, will arise at any given time, even in the short term of five (5) years.

1.4 Key Assumptions

The development of this DAMP is based on a series of key assumptions that are made as a foundation for planning and forecasting predictions of future activities, whether to maintain, replace or develop new assets (discretionary capital projects).

The key assumptions for this DAMP are as follows:

- Electricity growth rates will continue to be slow in the next five (5) years due to an economy in recovery and the impact of the Conservation and Demand Management (CDM) Programs in lowering demand and electricity usage.
- Recognition that the economies of the Towns of Essex, Kingsville and Lakeshore depend on a secure and reliable supply of electricity.
- In the next five (5) years regulatory activities by the OEB will continue at the current pace putting a heavy strain on E.L.K. Energy's resources. Beyond this timeframe it is hoped that some stability with regulatory requirements will consume fewer resources.
- The Green Energy Act which received Royal Assent on May 15, 2009 will require significant investment in the distribution infrastructure in order to meet the "Smart Grid" characteristics alluded to in the legislation.
- The installation of smart meters in 2010 will require significant investment to harness the capability of the new metering devices and to promote the "Smart Grid".
- With reference to the "Smart Grid" new technologies will be developed within the planning horizon of this DAMP. However, at this time the specific nature of how these new technologies would be developed to benefit E.L.K. Energy's customers is not known.
- Present service levels will continue to be maintained and will remain a balance between customer needs, price-quality tradeoffs, and industry best practice(s). Service levels will not be changed significantly due to introduction of new regulatory requirements.
- E.L.K. Energy's DAMP is a strategic document to convey future distribution system development and maintenance plans to stakeholders.
- E.L.K. Energy's asset management systems will continue to be developed in order to process performance information to meet demand, capacity, security, and reliability levels in a timely manner.

- Compliance with relevant regulatory requirements as they pertain to electricity rates, filing requirements, health & safety, and environmental protection will be maintained.
- Meet the requirements of E.L.K. Energy's Shareholder by achieving the objectives set down in E.L.K. Energy's mission statement.
- Asset management planning involves forecasts based on information collected from many sources. Distribution system development for the next year 2012 has been established. The following three (3) years (2013 through 2015) are less certain and the remaining years of the plan are based solely on trending. As the years pass a regular review of this plan will ensure it is the best it can be.

Review of future achievement (apart from regulatory compliance) will be centered on the following areas:

- Health & Safety Performance
- Economic Efficiency Performance
- Reliability Consistency and Improvement
- Environmental Performance
- Financial Performance

1.5 Asset Management Systems

Asset management systems used by E.L.K. Energy include inspection and maintenance databases, paper records of inspection and maintenance activities, reliability database, asset attribute databases and AutoCAD Map 3D.

E.L.K. Energy's strategy with respect to asset management is to build the information system for assets around AutoCAD Map 3D. Connectivity to other systems such as the databases enhances the sophistication of the entire asset management product. E.L.K. Energy does not have a SCADA system.

1.6 Distribution System & Asset Description

The E.L.K. Energy distribution system supplies approximately 11300 customers throughout the Towns of Essex, Kingsville and Lakeshore. These customers are supplied by three (3) Hydro One owned transformer stations (TS's) and one (1) Hydro One owned distribution station (DS) which deliver 27.44GWh of billed energy at a maximum demand of 64.00MW. (Figures from 2011).

The service area of E.L.K. Energy covers 22.22 square kilometers and is comprised of six non-contiguous service areas, serving the former municipalities of Belle River, Comber, Cottam, Essex, Harrow and Kingsville.

A breakdown of the assets in terms of their original cost is shown in Appendix A and a map of the service territory shown in Appendix B.

1.7 Service Levels

E.L.K. Energy abides by the OEB prescribed levels of service and reliability standards dictated by the following:

- Chapter 15 of the 2006 Electricity Distribution Rate Handbook – Service Quality
- Regulation and,
- Amendments to the Distribution System Code - Board File No. EB-2008-0001.

1.8 Network Development Plans

Asset enhancement and development projects have been identified and details are outlined in the capital budget for 2012. Trended capital budgets have been prepared for years 2013 thru 2014.

1.9 Life Cycle Asset Management

Information about E.L.K. Energy's asset attributes and condition data are held within databases, various paper records and files. Asset conditions are assessed by various inspection and maintenance activities. These activities are analyzed to determine what appropriate maintenance intervals best suit the asset. Detailed attribute condition information is presently being collected and with time the confidence level of this information will improve.

Operational and maintenance expenditures are outlined in the O&M budgets for 2012.

1.10 Risk Management

E.L.K. Energy's Distribution System Maintenance and Inspection Program document is aimed in part to protect the public from physical, electrical, and environmental hazards by maintaining a schedule of regular asset inspections or maintenance activities.

Ontario Regulation 22/04 - Electrical Distribution Safety is a key regulation which requires E.L.K. Energy and all other LDCs to maintain distribution standards, material standards, and construction verification programs to safeguard the public from hazards associated with the distribution system. The Electrical Safety Authority (ESA) is responsible for enforcing the regulation and this is done through a system of annual audits and regular field inspections.

E.L.K. Energy promotes excellence in health and safety management in order to prevent losses to people, assets, environment, and reputation. Keys to this H&S Management system are the evaluation of risk for all workplace hazards, regular H&S meetings with staff, and feedback on losses or near losses occurring in the workplace. Written emergency response procedures have been prepared as follows:

- Distribution System Emergency Contingency Plan

E.L.K. Energy will follow all regulatory requirements and guidelines to ensure the distribution system has a low risk impact on the environment.

1.11 Evaluation of Performance

Formal performance benchmarks have not been established at E.L.K. Energy. However, a number of initiatives have been undertaken to develop data systems from which performance measures can be developed. As initiatives are implemented more data is available for analysis which will lead to better information. Once a better stream of information is available specific performance indicators can be created. E.L.K. Energy's philosophy is one of continuous improvement and the evaluation of performance is one area where more development activity is required.

2 Background and Objectives

2.1 Purpose of this DAMP

The purpose of the DAMP is to provide a management framework to ensure that E.L.K. Energy:

- Maintains service levels that will meet customer, community, and regulatory expectations for its distribution system network.
- Understands what levels of distribution system capacity, reliability, and security of supply will be required both now and in the future, and what issues will drive these requirements.
- Have programs and procedures to manage all phases of the distribution system life cycle from inception to retirement.
- Has considered the management of the distribution system in terms of the best risk management practices with the ultimate goal of minimizing identified risks.
- Has made adequate provisions to fund all phases of the distribution system asset life cycle.
- Makes decisions based on structured business strategies and models.
- Has a continuously improving knowledge of its assets with respect to locations, age, condition, capacity, and attributes.

This DAMP is not intended to be a detailed description of E.L.K. Energy's distribution system assets, but it is intended to be a description of the thinking, the policies, the strategies, the plans, and the resources that E.L.K. uses to manage the assets.

2.2 Planning and Operating Contexts

All of E.L.K. Energy's distribution system assets exist within a strategic context that is shaped by a wide range of issues including E.L.K. Energy's Vision and Mission, this DAMP, regulatory environment, government policy objectives, commercial pressures, and technology trends. E.L.K. Energy's distribution assets are also influenced by technical regulations (i.e. –

construction and clearance standards), asset deterioration, and various risk exposures independently of the strategic context.

2.2.1 Strategic Context

E.L.K. Energy's strategic context includes many issues that range from the local and Canadian economy to developing technologies. Issues which are considered to impact this DAMP include:

- The prevailing regulatory environment which constrains electricity rates and rates of return, requires stable or improving reliability indices, and requires complex reporting of financial and operating performance.
- Government policy objectives such as the implementation of conservation and demand management programs, smart meters and the introduction of the Green Energy Act.
- E.L.K. Energy's commercial goals.
- Local, national, and global economic cycles.
- Interest rates and the general business confidence in the Towns of Essex, Kingsville and Lakeshore service areas which influence the rates at which new customers connect to lines.
- Ensuring sufficient funds and skilled people are available in the short, medium, and long term to resource E.L.K. Energy's service requirements.

2.2.2 Independence from Strategic Context

While E.L.K. Energy's assets and asset configuration will be shaped by the strategic issues identified above in "Strategic Context" that are relevant to its stakeholders, it is also important to recognize that the assets will also be influenced (and sometimes constrained) by issues that are independent of the strategic context. For example the rate at which wooden poles rot is independent of the scarcity of skilled contractors. This issue may constrain the rate at which E.L.K. Energy replaces rotten poles, but it does not influence the rate of rot.

Samples of issues that are independent of E.L.K. Energy's strategic context include:

- Technical regulations including Regulation 22/04 – Electrical Safety and the new
- Regulations on Farm Stray Voltage.
- Asset configuration, condition, and deterioration – these parameters will significantly limit the rate at which E.L.K. Energy can invest in upgrades or enhancements to the distribution system.
- The physical characteristics of electricity systems which govern such fundamental issues as voltage regulation, capacity, power flows, and faults.

- Physical risk exposures – exposure to such events as wind, lightning, snow/ice, motor vehicle impacts, theft of copper, and unwanted human interference are independent of strategic context.
- Health and safety requirements such as line clearances and grounding of equipment.

2.3 Key Planning Documents

2.3.1 Vision and Mission Statements

E.L.K. Energy's vision and mission statements are as follows:

E.L.K. Energy's vision is:

- be adaptable;
- continue to provide economical efficient energy;
- be in business for our customers;
- be a locally owned business;
- strive to be efficient in any new operation to meet our customers' needs; and
- partner with others to drive economies of scale and scope.

E.L.K. Energy's mission is:

- E.L.K. Energy Inc. is committed to provide the customers of the Towns of Essex, Kingsville and Lakeshore with a safe and reliable electricity supply while operating effectively and efficiently at an equitable cost.
- E.L.K. Energy Inc. will grow the business and increase shareholder value.

2.3.2 Strategic Plan

This DAMP is the main tool used to set the action plan for creating capital and operations/maintenance budgets over the planning horizon.

2.3.3 Asset Strategy

The asset strategy of the Legacy HEC's, which until now, has not been formally documented as an asset management plan, has been utilized to varying degrees. The guiding principles for today's distribution system asset strategy are:

- Maintain awareness of safety around electricity at the forefront for company, customers, and the general public.
- Exploit the availability of lines constructed for 27.6kV to improve reliability and electrical losses.
- As maintenance and construction occurs upgrade hardware on all distribution equipment to facilitate a seamless transition to the 27.6kV feeder voltage.
- Design the distribution system with the intent of minimizing electrical losses.

- Improve reliability of service to customers through effective maintenance plans and planned replacement of assets at their end of life.
- Maintain power quality by implementing the modeling of the electrical distribution system in AutoCAD Map 3D.
- Assist the connection of renewable embedded generation by identifying the constraints and providing solutions which enable proponents to connect to the distribution system.

2.3.4 Prevailing Regulatory Environment

The Electricity Distribution Industry in Ontario is regulated under the OEB Act (the OEB Act), the *Electricity Act, 1998*, and the *Electricity Restructuring Act, 2004* all of which are administered by the OEB.

The OEB Act sets out the following guiding objectives for the OEB with respect to electricity:

- To protect the interests of consumers with respect to prices and the adequacy, reliability, and quality of electricity service.
- To promote economic efficiency and cost effectiveness in the generation, transmission, distribution, sale and demand management of electricity and to facilitate the maintenance of a financially viable electricity industry.

These regulatory requirements dictate or heavily influence E.L.K. Energy's rates, fees, and return on equity. Rates are required, by legislation, to be approved by the OEB.

2.3.5 Government Policy Objectives

In May 2009 the Ontario Legislature passed Bill 150, the *Green Energy and Green Economy Act, 2009*. This legislation is a framework legislation aimed at making fundamental changes to the roles and responsibilities of local distribution companies (LDCs). This act will lead to a number of supporting regulations required to implement the Act. The implications of the act will likely result in significant asset expenditures by LDCs to support embedded generation and the ideals of a "smart grid". However, at this time it is too early to determine what impact this legislation will have on capital investments and subsequent rates to support these expenditures.

2.3.6 Annual Business Planning

E.L.K. Energy produces or updates a number of key documents which support the annual business planning process. These documents include the asset condition assessment and detailed budgets. Going forward, this distribution asset management plan will also be reviewed.

2.3.7 Annual Budgets

Each year E.L.K. Energy produces an annual budget for the year ahead which reflects the costs of individual projects and expenditures over the year. This budget is created by reviewing asset and operational issues experienced in the past and anticipated for the future. This budget

contributes to the long term alignment with the strategic context. It must be understood that this alignment process is very much a moving target.

For the last two years and in support for E.L.K. Energy's rate application in 2012, E.L.K. Energy has produced budgets going forward two years. In addition to the detailed annual budget a three year forecast (2012 plus two years) details trended costs over this period.

A critical activity for E.L.K. Energy (moving forward) is to ensure that the annual budget reflects the fundamentals of this DAMP.

2.4 Period Covered by this DAMP

This DAMP covers a period from January 1, 2012 to December 31, 2032.

There is an obvious degree of uncertainty in any predictions of the future and as such the DAMP contains a level of uncertainty. The influence of government regulation, ongoing adjustments to LDC regulation by the OEB, customer growth, and the general state of the economy makes for a substantial degree of uncertainty.

Accordingly E.L.K. Energy has established the following certainties to the timeframes of the DAMP:

Timeframe	Residential	Commercial/Industrial	Embedded Generation
Year 1	Certain	Little if any certainty	Some certainty
Year 2	Certain	Little if any certainty	Some certainty
Year 3 to 20	Some Certainty	Little if any certainty	Little if any certainty

2.5 Managing Stakeholder Interests

2.5.1 Identifying Stakeholders

E.L.K. Energy is governed by a Board of Directors and has one shareholder, The Town of Essex. Other stakeholders include:

- Electricity retailers, customers, and end consumers
- Contractors and service providers
- Distribution Supplier - Hydro One, as all of E.L.K. Energy's service areas are embedded within the Hydro One distribution system
- Tree owners
- Government agencies such as the OEB, OPA, & IESO
- Land owners where E.L.K. Energy lines run

E.L.K. Energy has contact with all of its stakeholders. Their suggestions provide opportunities for E.L.K. Energy to conduct its business and provide perspective about rates and service levels.

2.5.2 Accommodating Stakeholder Interests

Stakeholder interests can be viewed from a number of perspectives including financial stability, electricity rates, and quality of supply, safety, and compliance. Financial stability is required to ensure that shareholders and lending institutions have sufficient confidence to continue owning and investing in E.L.K. Energy. Electricity rates provide the means for E.L.K. Energy to create revenue and signal underlying costs. Not charging appropriate rates has economic implications for both E.L.K. Energy and its customers. Quality of Supply includes emphasis on reliability with respect to the number of interruptions, the duration of interruptions, the amount of flicker, and the quality of voltage. Safety involves staff, contractors, customers, and the general public. E.L.K. Energy must ensure the operation of the distribution system is safe for all. Compliance is of critical importance to the ongoing safety and reliability of the E.L.K. Energy distribution system.

E.L.K. Energy accommodates stakeholder interests as follows:

Interest	How E.L.K. ENERGY accommodates stakeholder interests
Safety	E.L.K. Energy will ensure that the public is kept safe by ensuring all assets are structurally sound, live conductors have maintained at least minimum clearances, enclosures are kept locked, and touch & step potentials are kept to a minimum. E.L.K. Energy will ensure the safety of its staff by implementing and continuously improving its safety management program.
Electricity Rates	E.L.K. Energy's revenue is constrained by regulatory requirements, conservation and demand management activities, and the state of the economy. Failure to collect enough revenue to fund reliable assets will impact customers in a negative way. Conversely collecting too much revenue penalizes customers and transfers a disproportionate proportion of wealth to the shareholder. E.L.K. Energy's pricing strategy must be cost effective and at the same time be enough to continue to balance distribution system security, capacity, reliability, and return on investment.
Quality of Supply	A customer survey was performed in 2006 and customers indicated that they expect their utility to provide consistent, reliable energy, handle outages and restore power quickly and make using electricity safely an important priority. For this reason E.L.K. Energy will continue to effectively rebuild its infrastructure with funds available.

Compliance	E.L.K. Energy will disclose performance information as required by regulators and ensure that safety issues are thoroughly documented.
Financial Stability	E.L.K. Energy will accommodate stakeholders' needs for long term viability by returning a dividend to the shareholders.

2.5.3 Managing Conflicting Interests

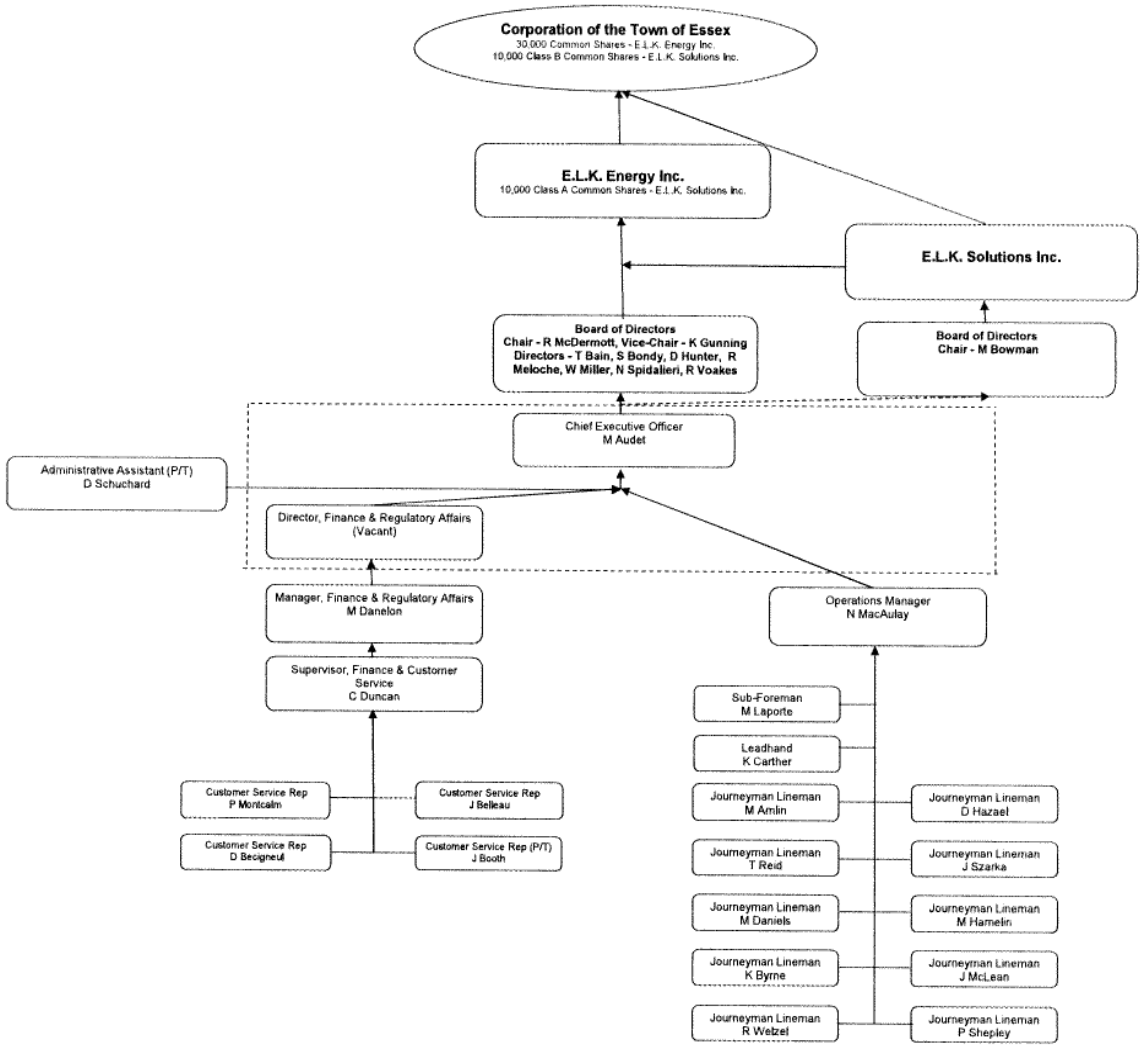
Conflicting interests will be managed as follows:

- Safety must be 1st Priority - Safety of staff, contractors, and the public will always be the highest priority even if this means exceeding budgets or risking non- compliance.
- All other interests must be managed as the situation dictates and will out of necessity be a balance of some proportion (not necessarily equal proportions) between the interests:
    - Quality of Supply – Customers want value and are willing to pay for a certain level of quality.
    - Electricity Rates – Rates reflect an appropriate balance between revenues and expenditures.
    - Compliance – Other than safety.
    - Financial Stability – E.L.K. Energy must be financially viable or it will not exist to manage other conflicts.

2.6 Accountabilities for Asset Management

E.L.K. Energy's accountabilities for asset management are reflected in the following figures describing the corporate entities and corporate organizational structure with area of responsibility.

Corporate Organization Chart - E.L.K. Energy Inc.



2.6.1 Accountability at Shareholder – Owner Level

E.L.K. Energy has one shareholder – The Town of Essex.

2.6.2 Accountability at Governance Level

E.L.K. Energy is governed by a Board of Directors and the Directors are appointed by the Shareholders. E.L.K. Energy has eight directors, two of which are independent from any affiliate.

2.6.3 Accountability at the Executive and Management Level

The Chief Executive Officer (CEO) is accountable to the Board of Directors and the Management Level is accountable to the CEO through business goals, the development and execution of annual budgets, and various standards & processes that apply to the distribution system assets.

Accountability for financial and regulatory activities lies with the Director of Finance. This role provides all financial reporting, assets funding provisions, and budgeting process for all phases of the DAMP.

Accountability for managing the lifecycle of existing assets, the installation of new developments, and the installation of new assets lies with the Operations Manager. This role addresses long term planning issues such as capacity and security.

Accountability for the daily continuity and restoration of electrical supply lies with the Operations Manager. This role provides control and dispatch for electrical restoration.

2.6.4 Key Reporting Lines

The Board of Directors governs E.L.K. Energy's electrical distribution business and manages this overall responsibility through the CEO.

The E.L.K. Energy Board of Directors meets monthly and receives monthly reporting from management outlining financial, operational, and safety performance as well as the progress in maintenance, operational, and capital programs.

2.6.5 E.L.K. Energy Operating Structure

2.6.5.1 Location

E.L.K. Energy's operation is based in one centralized location at 172 Forest Ave, Essex. All staff report daily to this location.

2.6.5.2 Engineering & Operations Group

The Operations Department provides a seamless design to build process which includes:

- Planning and design for new capital works including all new connections to the distribution system;
- Analysis of system configuration with such inputs as growth, new connections, voltage levels, and capacity information with a view to optimize the configuration of the distribution system;
- Operating, emergency response, connection services, maintenance services, and capital construction services;
- Executes the design plans;
- Produces material requirements to be utilized and warehoused.

2.6.5.3 Finance Group

The Finance Department provides financial reporting & analysis, budget support, accounting, rate design, and regulatory support to meet regulatory requirements.

3 Asset Management Systems

3.1 Asset Knowledge

Asset information is essential to a properly functioning asset management plan. E.L.K. Energy has various records, both paper and electronic, which identify asset attributes and condition data. The following table summarizes the status of the collection of asset attributes with respect to each asset category (based on May 2011 information).

Description of Asset	% Of Asset Attributes Known	% of Condition Data Collected
Distribution Station Transformers	100	100
Pole Mounted Transformers	60	100
Pad Mounted Transformers	70	100
Poles	90	100
Gang Operated Overhead Switches	100	20
Pad Mounted Switchgear	100	100
Underground XLPE Cable	90	N/A

The method of information collection and storage is a key component to successfully managing the data from all assets. Records are kept in a number of formats – either paper based files, database (MS Access-Db), or spreadsheet (MS Excel-Sp) based.

3.2 Improving and Using Asset Knowledge

E.L.K. Energy's strategy is to make the AutoCAD Map 3D platform the keystone of all asset information. Currently asset data, for poles and distribution transformers, such as global coordinates, asset number (unique ID #) and physical attributes are available or accessible directly from the map. In the future E.L.K. Energy is confident that existing systems will be continuously improved so that all information (asset attribute and condition data) for all assets will be housed under the E.L.K. Energy format. This is essential in order to prepare meaningful asset condition assessments on a regular basis upon which replacement and development activities decisions can be made.

3.3 Key Systems and Processes

E.L.K. Energy's key tool to manage asset knowledge is its AutoCAD Map 3D. This system in conjunction with a number of connected databases and spreadsheets residing on the outside of the main software platform contains the attributes for some of the distribution assets as noted in the above table. In addition to the AutoCAD Map 3D and databases, a number of paper records also exist which contain the asset information.

4 Summary of Assets Covered

4.1 Distribution Area

E.L.K. Energy's distribution system covers approximately 22.22 square kilometers in the Towns of Essex, Kingsville and Lakeshore. Within those towns, which cover a large geographic area in southwestern Ontario, E.L.K. Energy has six non-contiguous service areas, serving the former municipalities of Belle River, Comber, Cottam, Essex, Harrow and Kingsville. All of E.L.K. Energy's service areas are classified as urban. A map of the service areas is shown in Appendix B.

Generally speaking the urban service territory is comprised of mostly residential development with a supporting small commercial area and limited light industrial.

4.1.1 Demographics

4.1.1.1 Key Economic Activities

The Towns of Essex, Kingsville and Lakeshore service areas are predominantly residential areas but are home to some small businesses.

4.1.1.2 Energy & Demand Characteristics

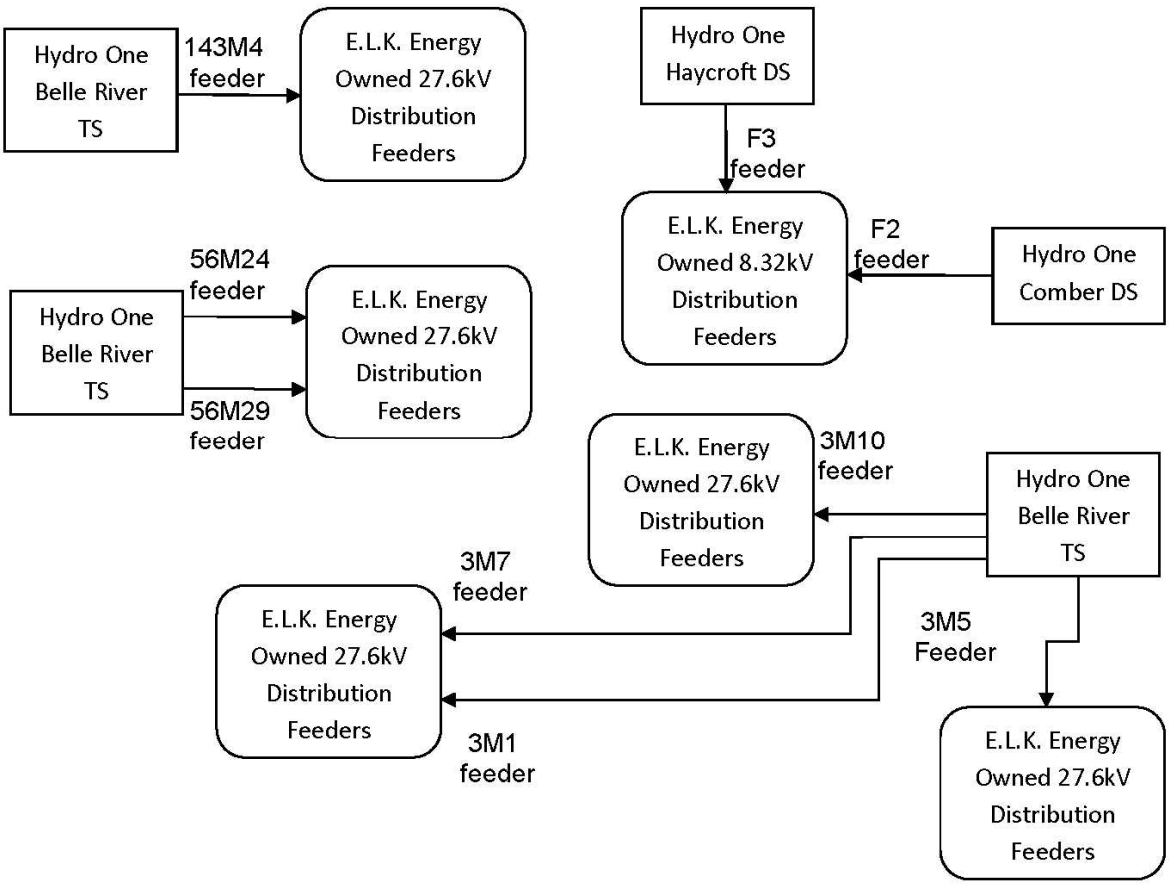
Key energy and demand figures separated into transformer station areas and based on historical information from 2004 to 2011 are as follows:

Station	Maximum Monthly Energy Usage GWh	Maximum Monthly Demand MW	Long Term Trend GWh	Long Term Trend MW
Belle River TS	4.317696	9.93		
Comber DS	0.786217	3.83		
Kingsville TS	14.580220	32.36		
Lauzon TS	7.756887	17.88		

4.2 Network Configuration

E.L.K. Energy is connected to the Ontario power transmission grid at four (4) transformer stations which are owned by Hydro One (HO). E.L.K. Energy customers are supplied via seven (7) 27.6kV and two (2) 8.32 kV feeder circuits which emanate out of these transformer stations. Within the service territory of E.L.K. Energy there is one (1) E.L.K. Energy owned distribution station fed from a 27.6kV circuit which supplies E.L.K. Energy customers with one (1) 4.16 kV circuit. Responsibility for maintaining circuits lies with the respective owners of the equipment.

The basic configuration is shown below.



4.3 Assets by Category

E.L.K. Energy has the following major assets:

Description of Assets	# of Assets
Distribution Station Transformers	1
Pole Mounted Transformers	832
Single Phase Pad Mounted Transformers	672
Three Phase Pad Mounted Transformers	59
Poles	3024
Gang Operated Overhead Switches	17
Pad Mounted Switchgear	1
Underground XLPE Cable	61.53

The above data is current as of December 2011.

5 Managing the Existing Assets

Electricity assets like any other type of physical asset have a lifecycle. This section describes how E.L.K. Energy assets are managed over their entire lifecycle from conception to retirement.

5.1 Maintenance Planning

E.L.K. Energy manages assets with the intent of providing a safe, efficient, reliable, and cost effective electricity distribution system.

For example distribution transformers are manufactured with the intent that there is no need to provide regular maintenance (maintenance free) for the duration of their lifecycle. Generally speaking they remain in service providing continuous service until they reach the end of their lifecycle – they fail in service.

At present E.L.K. Energy does not have a formal Maintenance and Inspection Program. All of the distribution assets are inspected on a regular basis as prescribed in the DSC. The inspections are documented on service orders and any maintenance required is forwarded to the supervisor for assessment and or immediate address. It is E.L.K. Energy's intention to have a formalized program in place for 2013 to provide further asset condition documentation for the DAMP.

This process will allow E.L.K. Energy to collect information and base future intervals on the actual existing condition of the asset. In this way the cost to perform maintenance can be optimized. The data collected from the maintenance provides valuable information upon which to base repair work, refurbishment activities, and asset replacement schedules.

Line Clearing and Tree Trimming – Tree contacts are a major cause of distribution system outages and momentary interruptions for E.L.K. Energy customers. E.L.K. Energy has a regular

line clearing and tree trimming maintenance program. This program cycles through the service territory on a four year basis.

5.2 Understanding Asset Lifecycles

Definition of Key Lifecycle Activities:

Activity	Detailed Definition
Operations	Involves changing the design parameters of an asset such as changes in circuit configuration or setting a tap on a transformer. Does not involve a physical change to the asset. Line clearing of trees is an operations activity.
Maintenance	Involves replacing consumable components on asset assemblies but not the whole assembly. Generally these sub components wear out before the whole assembly fails. For example an insulator on a pole assembly or an arc snuffer/muffler on a gang operated load break switch.
Sustainment	Involves replacing assets in terms of the assets listed under asset categories. For example replacing a pole in a pole line.
Retirement	Removes an asset from the distribution system. For example removing a redundant pole line from service. By definition retirement would be a reduction in the distribution system footprint.

5.3 Operating the Assets

Operational activities generally arise in dealing with distribution system issues when assets are not operating as normal. For example a number of triggers exist as follows:

- Voltage levels too high or too low – outside of Canadian Standards Association Voltage Variation Limits for circuits up to 1000V under “Normal Operating and Extreme Operating Conditions”
- Fault current exceeds thresholds on protective devices such as reclosers, fuses, and breakers
- Demand exceeds thresholds on protective devices and or the assets current carrying capacity
- Customer concerns about the quality or reliability of electricity being supplied to them

5.4 Maintaining the Assets

As stated above, maintenance is primarily about replacing consumable components of assets. Components wear out in a number of ways including oxidation, pitting or erosion of contact surfaces, material rot, gasket degradation, pitting of insulators, etc. Continued operations of devices which clearly exhibit component degradation will eventually lead to a failure in the distribution system. What leads to failure is a complex interaction of parameters such as quality of manufacture, quality of installation, age, operating hours, number of operations, loading cycles, stress due to fault events, ambient temperature, contaminants, and the maintenance performed during the life of the asset.

Specific maintenance strategies such as run to failure or decisions to clean pad-mounted switchgear have been developed primarily based on past maintenance histories or the lack thereof and the information contained in the Asset Condition Assessment.

6 Service Levels

This section describes how E.L.K. Energy considers its service levels and relates them to the distribution assets.

E.L.K. Energy assesses what customers' preferences are by obtaining informal feedback from customers during regular daily interactions with the utility. E.L.K. Energy considers service levels to include a broad range of services including capacity, quality of electrical supply, continuity, restoration, ground clearances to conductors, grounding of equipment (public safety), and the absence of (radiant) interference. E.L.K. Energy considers customer preferences to fall into three categories in order of priority as follows:

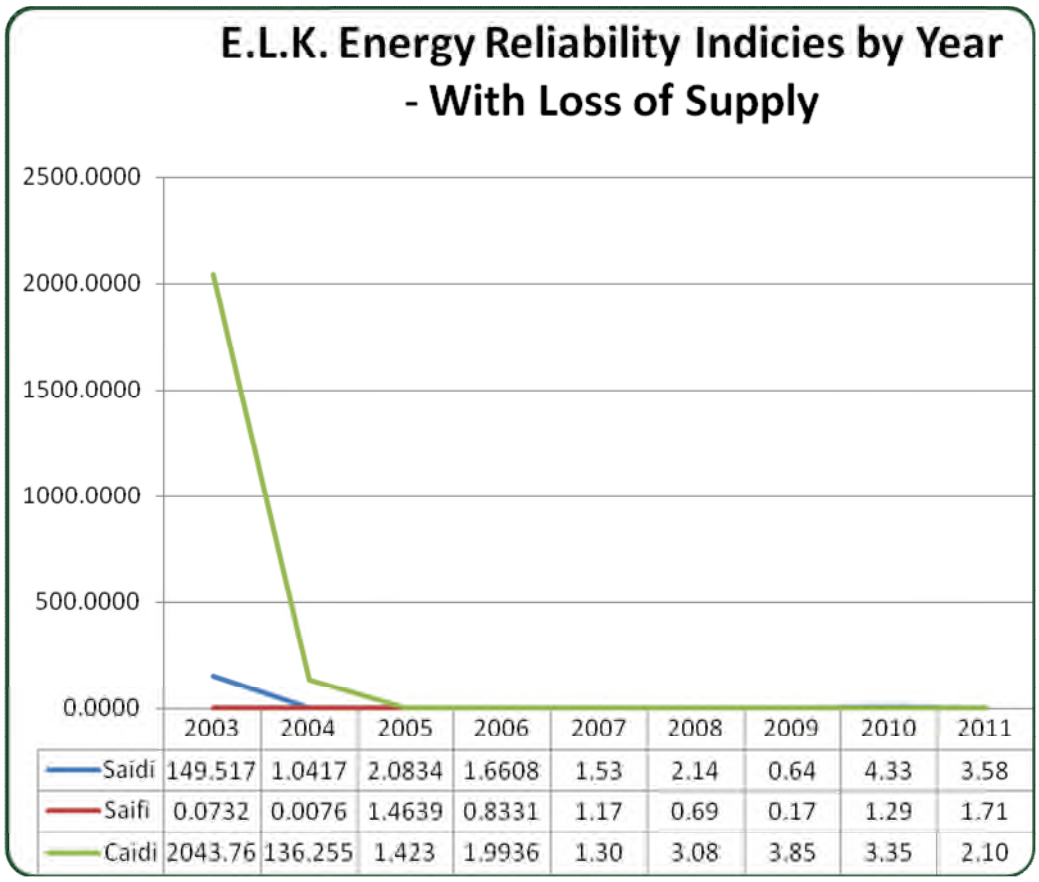
- Reliability – continuity and reliability of electrical supply
- Quality – the absence of momentary interruptions and non-standard voltage levels
- Process – answering the phone, processing regular utility transactions such as new service connections & upgrades to electrical services, and outage notices

6.1 Service Levels - Reliability

The reliability of supply is primarily measured by three internationally accepted indices called SAIDI, SAIFI, and CAIDI. They are defined as follows:

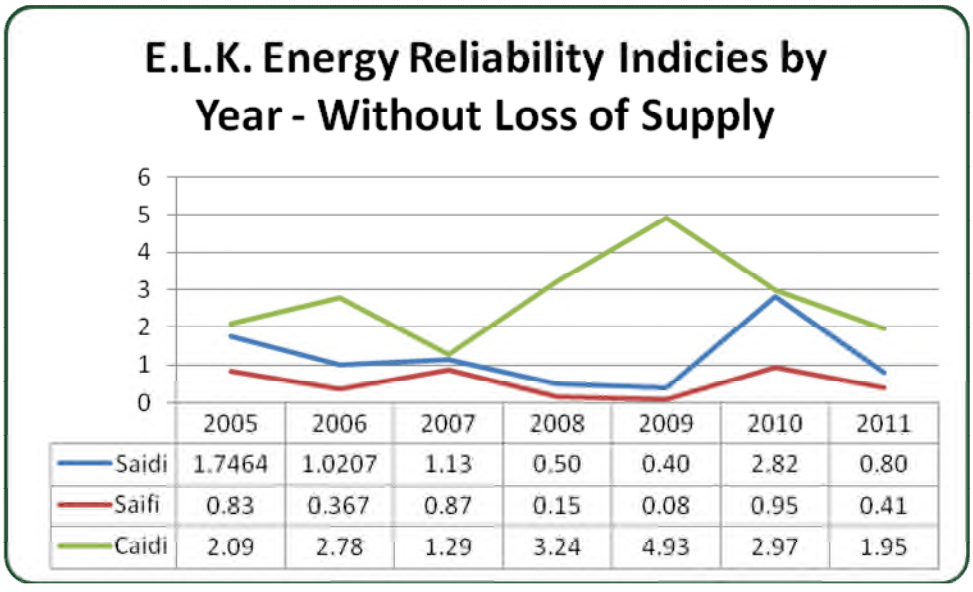
- SAIDI – System Average Interruption Duration Index – the length of outage customers experience in the year on average – expressed as hours per customer per year;
- SAIFI – System Average Interruption Frequency Index – the average number of interruptions each customer experiences – expressed as # interruptions per year per customer;
- CAIDI – Customer Average Interruption Duration Index – the speed at which power is restored – expressed as average duration in hours per customer per year.

E.L.K. Energy's indices history is shown in the table below (includes loss of supply):

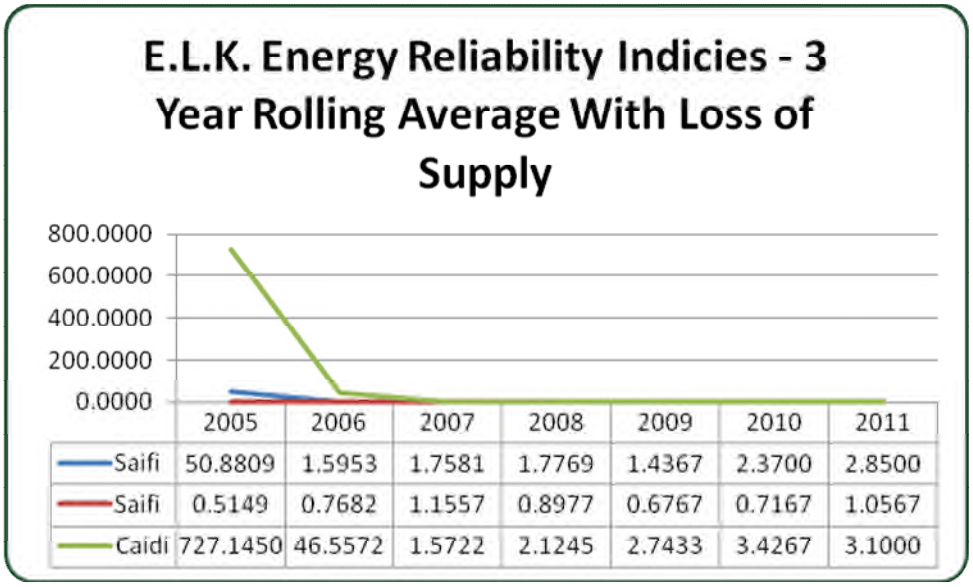


	2003	2004	2005	2006	2007	2008	2009	2010	2011
Saidi	149.517	1.0417	2.0834	1.6608	1.53	2.14	0.64	4.33	3.58
Saifi	0.0732	0.0076	1.4639	0.8331	1.17	0.69	0.17	1.29	1.71
Caidi	2043.76	136.255	1.423	1.9936	1.30	3.08	3.85	3.35	2.10

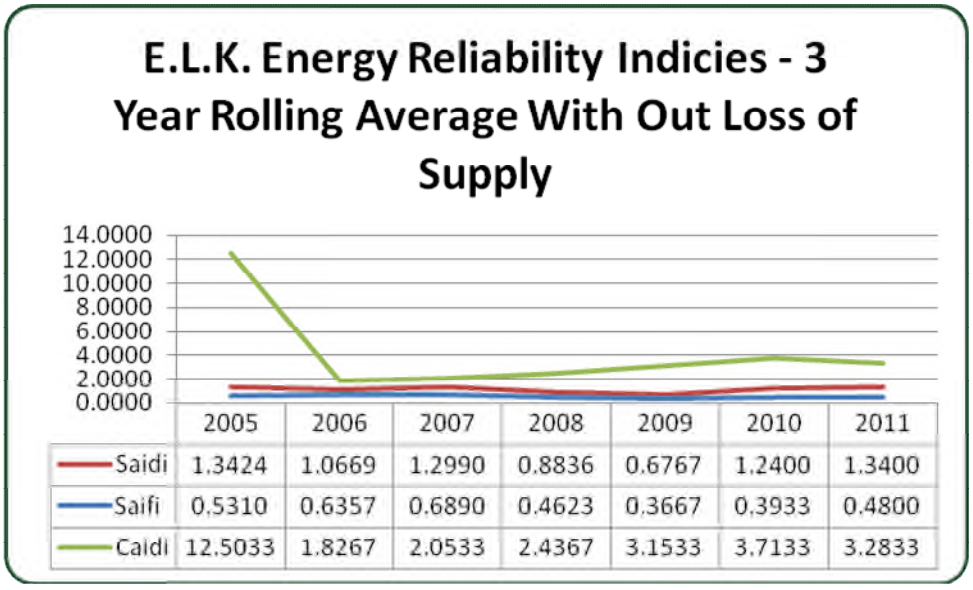
E.L.K. Energy's indices history is shown in the table below (excluding loss of supply):



	2005	2006	2007	2008	2009	2010	2011
Saidi	1.7464	1.0207	1.13	0.50	0.40	2.82	0.80
Saifi	0.83	0.367	0.87	0.15	0.08	0.95	0.41
Caidi	2.09	2.78	1.29	3.24	4.93	2.97	1.95



	2005	2006	2007	2008	2009	2010	2011
Saifi	50.8809	1.5953	1.7581	1.7769	1.4367	2.3700	2.8500
Saifi	0.5149	0.7682	1.1557	0.8977	0.6767	0.7167	1.0567
Caidi	727.1450	46.5572	1.5722	2.1245	2.7433	3.4267	3.1000



	2005	2006	2007	2008	2009	2010	2011
Saidi	1.3424	1.0669	1.2990	0.8836	0.6767	1.2400	1.3400
Saifi	0.5310	0.6357	0.6890	0.4623	0.3667	0.3933	0.4800
Caidi	12.5033	1.8267	2.0533	2.4367	3.1533	3.7133	3.2833

As shown by the graphs the trend in the indices numbers has decreased since 2004.

The reliability of supply is affected by E.L.K. Energy's sustainability programs (for existing assets), discretionary capital projects, operating processes, and factors which are not under the control of E.L.K. Energy such as weather disturbances and motor vehicle accidents.

6.2 Causes of Outages

Since the beginning of 2002 E.L.K. Energy has been tracking the causes of outages. The information source for these particular statistics is the same database that is utilized in calculating the reliability indices in Section 6.1 above. The Outages by Cause for 2003 to 2011 are shown in two graphs as attached in Appendix D. Both sets of graphs reflect outages in terms of the number of incidents that occurred each year by specific causes. It is E.L.K. Energy's intent to utilize this information as an input into the prioritization of both maintenance and capital expenditures.

6.3 Service Levels - Quality

Issues with quality of supply usually result in customer complaints. Measuring the response and actions to customer calls about poor quality is an indicator of the service level being provided. In an overhead system the control of momentary interruptions is a difficult one to reduce with any certainty because adverse weather along with tree and animal contacts affect this factor considerably. However, regular tree trimming and the constant vigilance of eliminating system defects through inspection and maintenance is believed to have a significant impact. Low voltage is usually related to either a defective asset or a capacity issue.

6.4 Service Levels - Process

Process issues are generally the customer's perception of how E.L.K. Energy goes about its business. The primary measure for this is the receipt of customer complaints. In some cases these are relatively easy to address with process management improvement practices, but they may also be relatively expensive to implement. An example of this is the purchase of a new phone system to generate a better interface with the customer. Specifically the following services are measured:

- Connection of New Services
- Appointment Scheduling
- Appointments Met
- Rescheduling a Missed Appointment
- Telephone Accessibility
- Telephone Call Abandon Rate
- Written Responses to Enquiries
- Emergency Response

The above service levels are reported to the OEB as required annually.

6.5 Public Safety

Public safety in Ontario with respect to the electrical distribution system operated by E.L.K. Energy is governed by Ontario Regulation 22/04 – Electrical Distribution Safety.

7 Sustaining Existing Assets

7.1 Assets by Category

E.L.K. ENERGY's distribution assets are grouped as follows:

- Distribution Station Transformers
- Pole Mounted Transformers
- Pad Mounted Transformers – separated into single and three phase units
- Poles
- Gang Operated Overhead Switches
- Pad Mounted Switchgear
- Underground XLPE Cable

7.2 Asset Condition Assessment

The cornerstone of any asset management plan is to understand the type of assets, the number of assets, and the condition of the assets owned by the corporation. All records were kept in paper or spreadsheet form. As well, detail on the various asset numbers, attributes and their condition were generally poorly documented or unknown. With the launch of Auto CAD Map 3D and various database development projects, data collection and retention has improved dramatically. Field work is continuing to improve the collection of data.

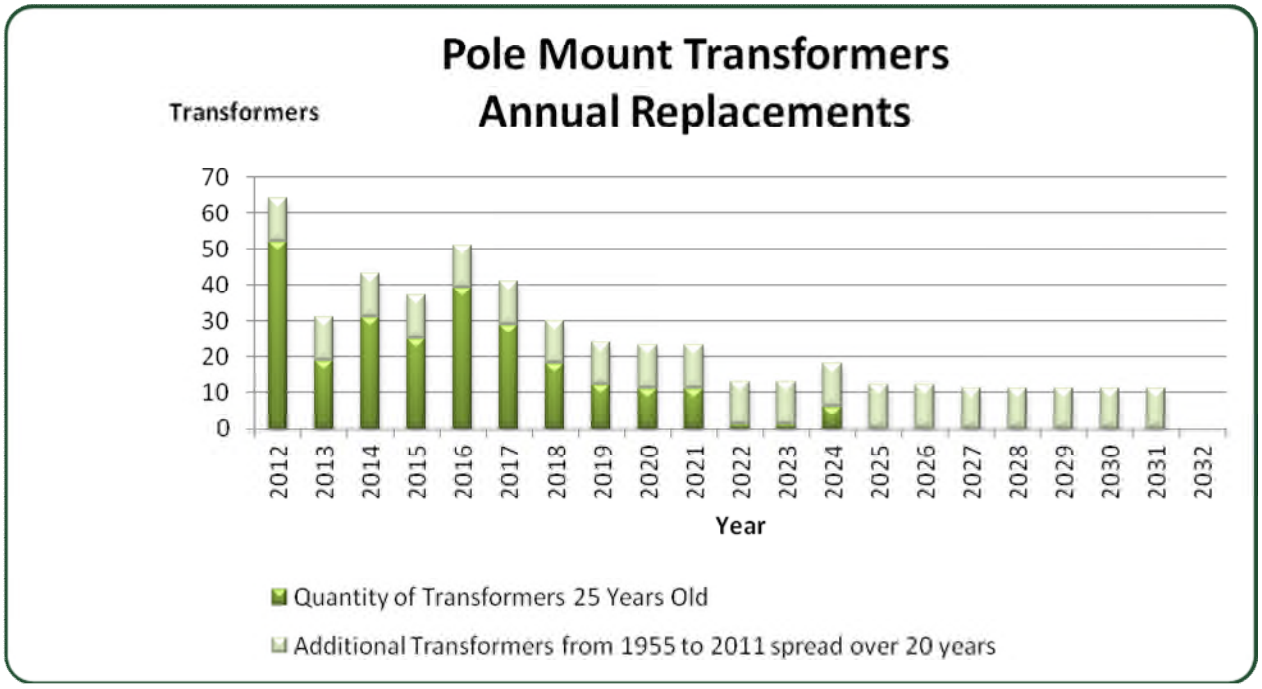
7.3 Sustainment Strategies

7.3.1 Pole Mounted Transformers

7.3.1.1 Results of Asset Evaluation

Pole Mounted Transformers as a whole constitute a very large asset base. The age and condition of transformers is spread over a broad range (the transformers were installed between 1955 and 2012). E.L.K. Energy has used a Typical Useful Life (TUL) of twenty-five (25) years for Pole Mounted Transformers. When 25 years is added to the year of manufacture the number of potential replacements at end of life can be forecasted. This projection revealed 246 transformers that have met or exceeded the 25 year TUL criteria. This quantity of transformers has been distributed over the twenty year replacement projection which added 12 units per year starting from 2012 to 2026 and 11 units per year starting from 2027 to 2032.

Shown below is a bar graph indicating the above mentioned asset evaluation which shows the number of Pole Mounted Transformers in E.L.K. Energy's distribution system that have reached or will reach their TUL of 25 years:



7.3.1.2 E.L.K. Energy's Sustainment Strategy

E.L.K. Energy's sustainment strategy is predicated on the following factors:

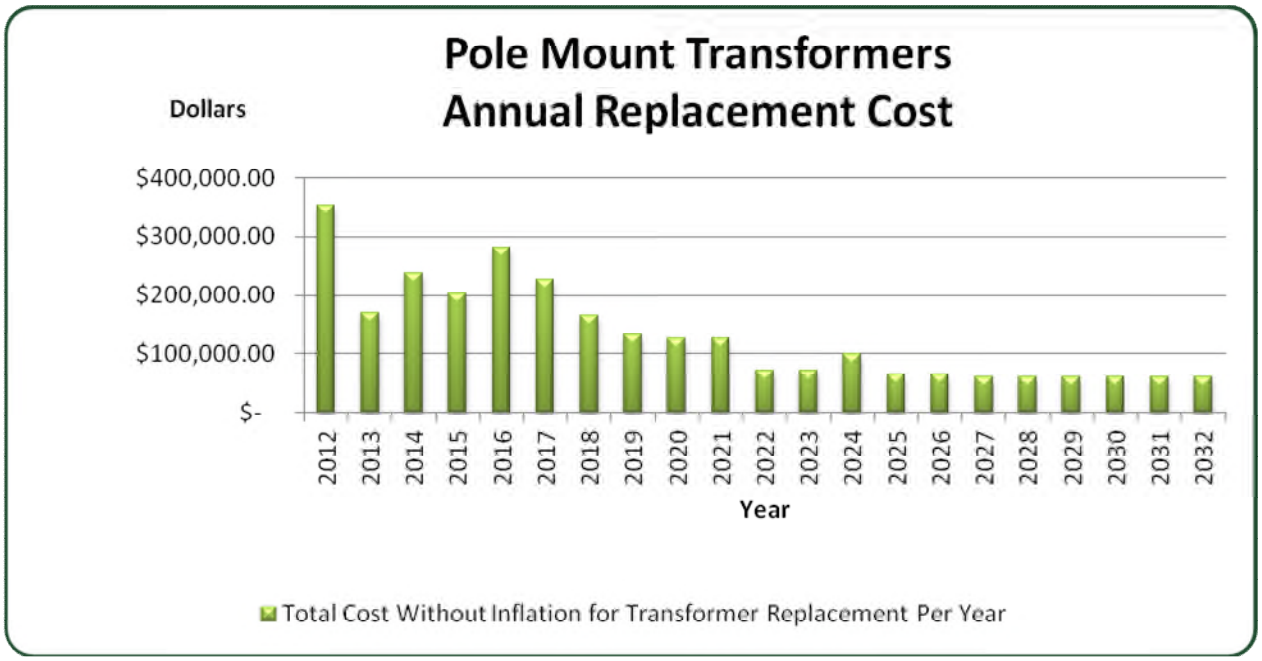
- The distribution transformer requires no maintenance.
- The outage impact of an individual transformer failure is limited to a very small number of customers and in some cases due to the rural nature of parts of the service territory only one customer is involved.

These factors have led E.L.K. Energy to adopt the following strategy:

- Inspect and monitor condition.
- Replace when conditions dictate - such as cracked bushings, leaking oil, etc.
- Replace when unit fails – thus, on a reactive replacement basis.
- Closely monitor the number of failures occurring between 2011 and 2017, if failure rates indicate an increasing trend change strategy to a preplanned replacement program to minimize the financial and operational affects on the large number of transformer replacements that could potentially occur between 2012 and 2021.

7.3.1.3 Budgets and Forecast

The relative costs in each year to replace units at end of life using an average unit replacement cost of $5,500.00 would be as shown in the bar graph below:



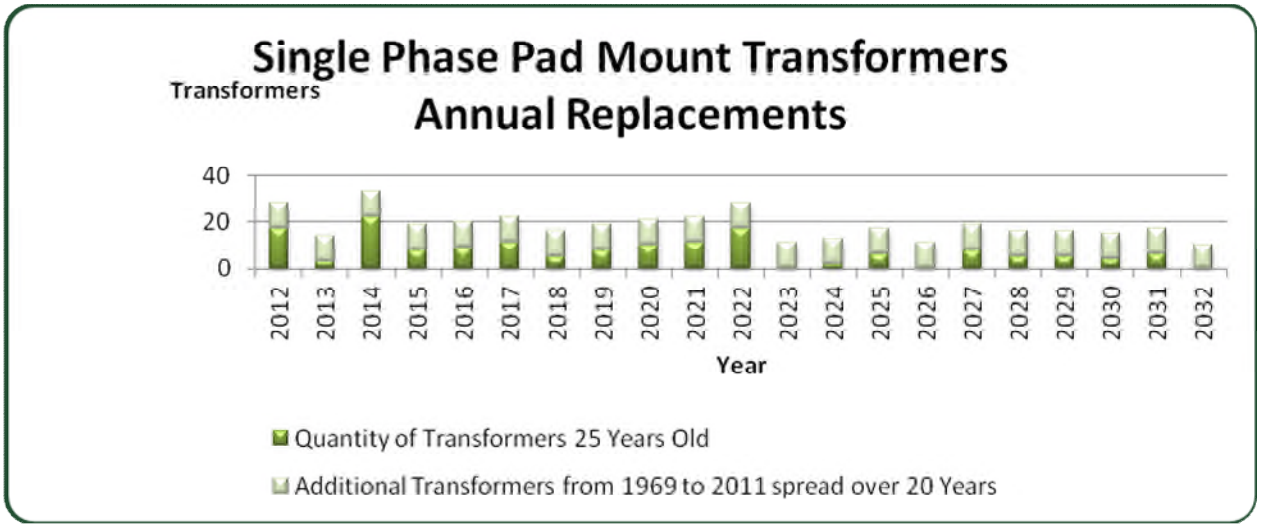
- Replacements under a reactive approach are part of the Operations and Maintenance budget.
- Replacements under a preplanned approach are part of the Capital Budget.

7.3.2 Single Phase Pad Mounted Transformers

7.3.2.1 Results of Asset Evaluation

Single Phase Pad Mounted Transformers as a whole constitute a large asset base. The age and condition of transformers is spread over a broad range (the transformers were installed between 1969 and 2012). E.L.K. Energy has used a TUL of twenty-five (25) years for Single Phase Pad Mounted Transformers. When 25 years is added to the year of manufacture the number of potential replacements at end of life can be forecasted. This projection revealed 230 transformers that have met the 25 year TUL criteria. This quantity of transformers has been spread over the twenty year replacement projection which added 11 units per year starting from 2012 to 2031 and 10 units in 2032.

Shown below is a bar graph indicating the above mentioned asset evaluation which shows the number of Single Phase Pad Mounted Transformers in E.L.K. Energy's distribution system that have or will reach their TUL of 25 years:



7.3.2.2 E.L.K. Energy's Sustainment Strategy

E.L.K. Energy's sustainment strategy is predicated on the following factors:

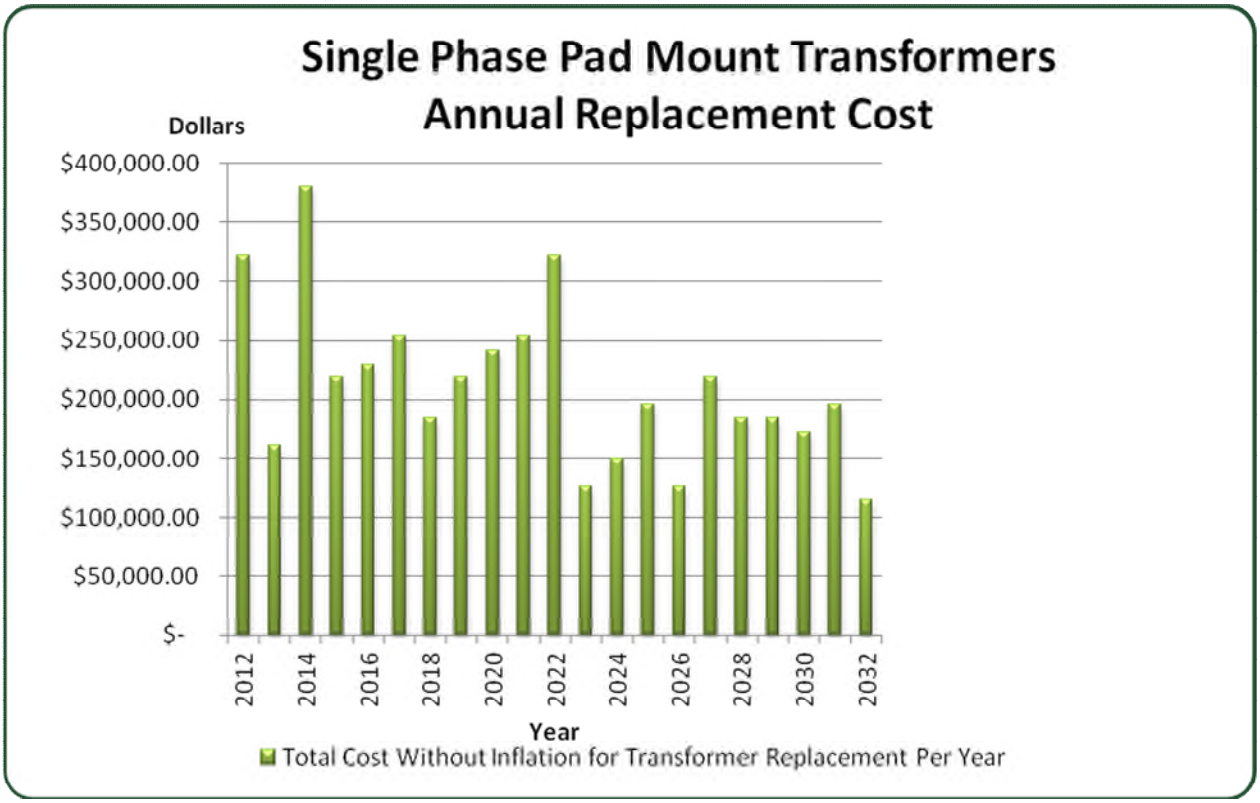
- The single phase pad mounted distribution transformer requires very little maintenance. Maintenance is generally confined to replacing faded warning labels and potentially painting the units.
- The outage impact of an individual transformer failure is limited to usually 10 to 12 customers.

These factors have led E.L.K. Energy to adopt the following strategy:

- Inspect and monitor condition.
- Replace when conditions dictate - such as rusted tanks and frames, cracked bushings, leaking oil, etc.
- Replace when unit fails – thus, on a reactive replacement basis

7.3.2.3 Budgets and Forecast

The relative costs in each year to replace units at end of life using an average unit replacement cost of $11,500.00 would be as shown in the bar graph below:



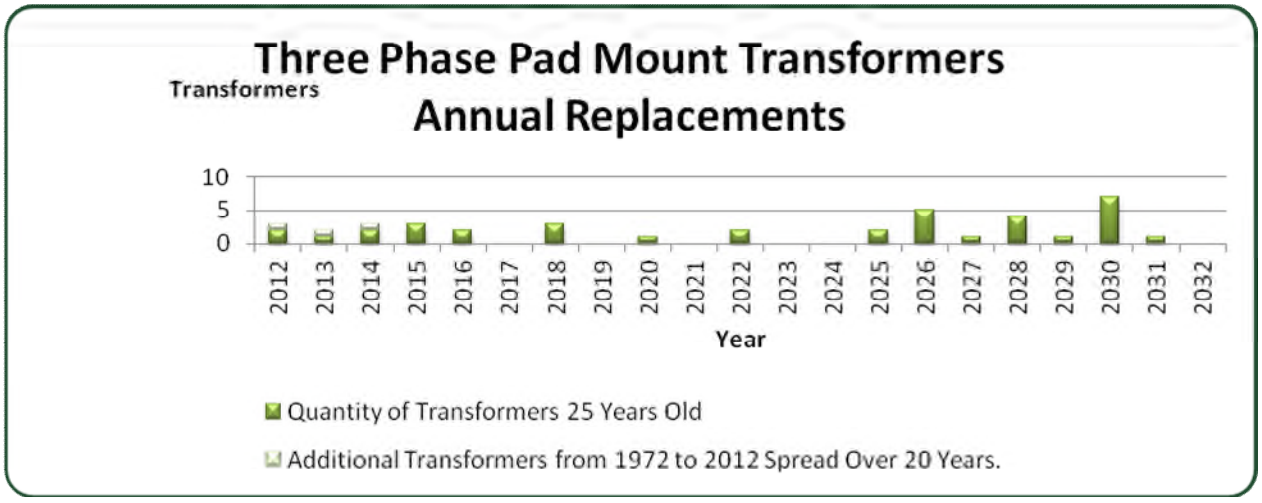
- Replacements under a reactive approach are part of the Operations and Maintenance budget.
- Replacements under a preplanned approach are part of the Capital Budget.

7.3.3 Three Phase Pad Mounted Transformers

7.3.3.1 Results of Asset Evaluation

Three Phase Pad Mounted Transformers as a whole constitutes a very large asset base due to dollar value. The age and condition of transformers is spread over a broad range (the transformers were installed between 1972 and 2012). E.L.K. Energy has used a TUL of twenty-five (25) years for three Phase Pad Mounted Transformers. When 25 years is added to the year of manufacture the number of potential replacements at end of life can be forecasted. This projection revealed 3 transformers that have met the 25 year TUL criteria. This quantity of transformers has been spread over the twenty year replacement projection which added 1 unit per year starting from 2012 to 2014.

Shown below is a bar graph indicating the above mentioned asset evaluation which shows the number of Three Phase Pad Mounted Transformers in E.L.K. Energy's distribution system that have or will reach their TUL of 25 years:



7.3.3.2 E.L.K. Energy's Sustainment Strategy

E.L.K. Energy's sustainment strategy is predicated on the following factors:

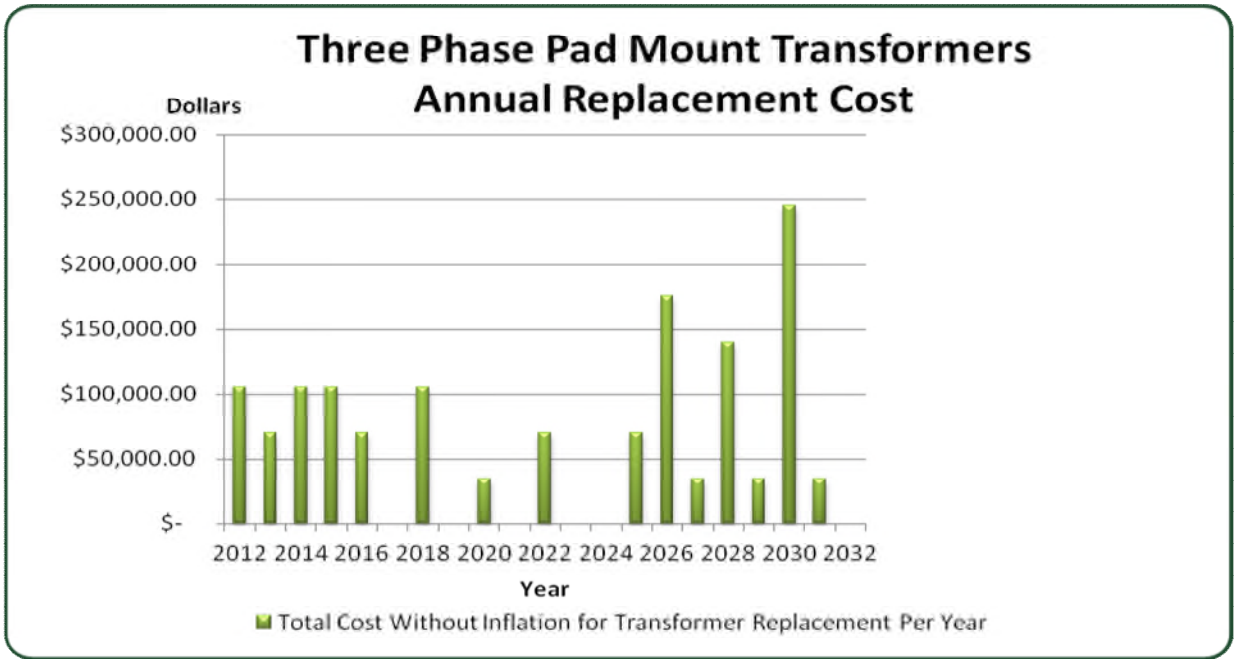
- The three phase pad mounted distribution transformer requires very little maintenance. Maintenance is generally confined to replacing faded warning labels and potentially painting the units.
- The outage impact of an individual transformer failure is limited to one service site – either commercial or industrial.

These factors have led E.L.K. Energy to adopt the following strategy:

- Inspect and monitor condition.
- Replace when conditions dictate - such as rusted tanks and frames, cracked bushings, leaking oil, etc.
- Replace when unit fails – thus, on a reactive replacement basis.
- Monitor conditions closely starting in year 2013, if failure rates indicate an increasing trend change to a preplanned replacement program to minimize the financial and operational affects.

7.3.3.3 Budgets and Forecast

The relative costs in each year to replace units at end of life using an average unit replacement cost of $35,000.00 would be as shown in the bar graph below:



- Replacements under a reactive approach are part of the Operations and Maintenance budget.
- Replacements under a preplanned approach are part of the Capital Budget.

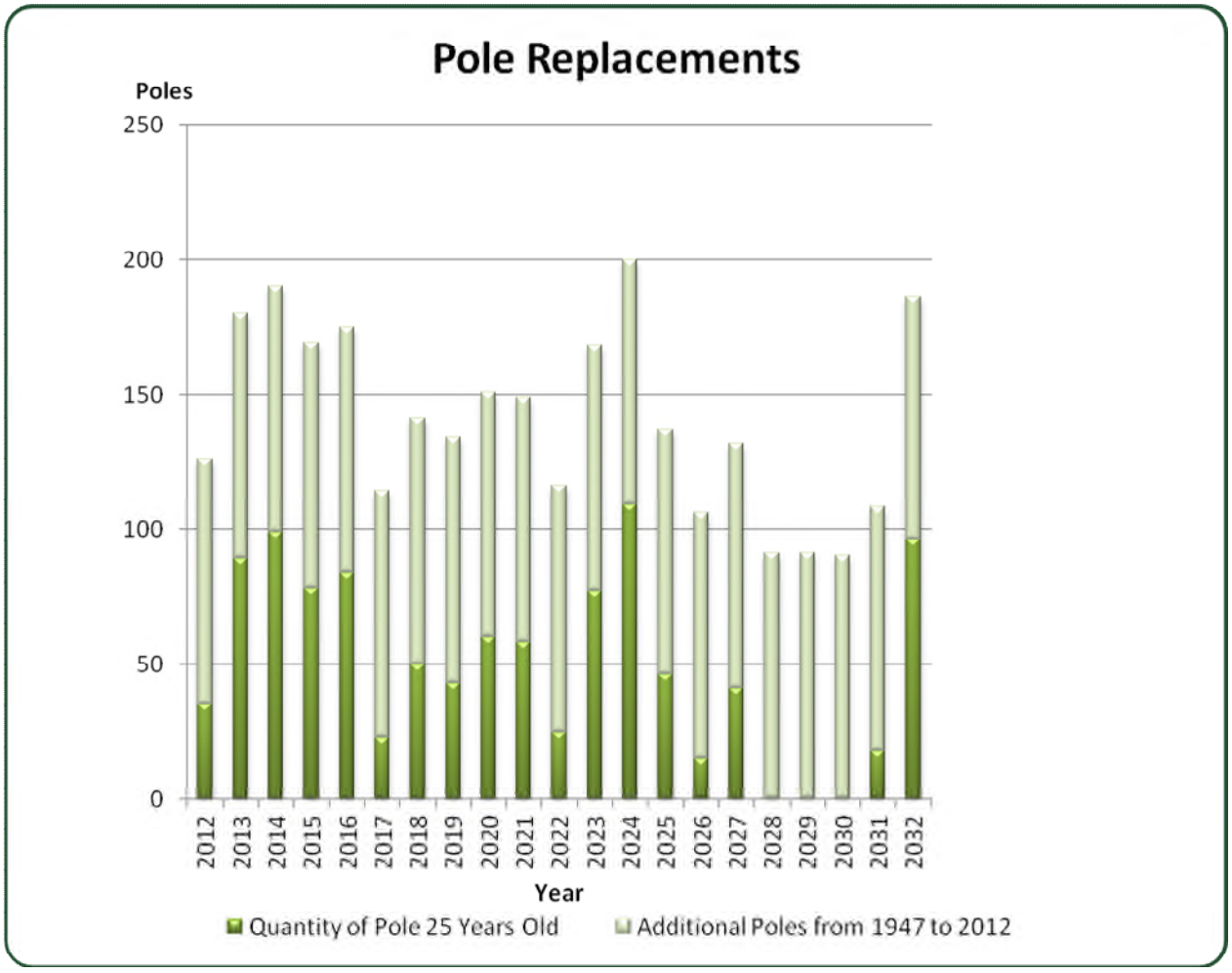
7.3.4 Poles

7.3.4.1 Results of Asset Evaluation

Poles by far have the largest number of assets within the distribution system. The age and condition of poles covers the full range of possibilities from newly installed to sixty-five (65) years of age. E.L.K. Energy's inspection over the last few years has resulted in very few pole replacements indicating that the overall pole condition is good.

E.L.K. Energy has used a TUL of twenty-five (25) years for Poles. When 25 years is added to the year of manufacture the number of potential replacements at end of life can be forecasted. This projection revealed poles that have met the 25 year TUL criteria in the years starting 2007 to 2011. This quantity of poles was spread over the twenty year replacement projection which added 91 poles per year starting from 2012 to 2029 and 90 poles per year starting from 2030 to 2032.

Shown below is a bar graph indicating the above mentioned asset evaluation which shows the number of Poles in E.L.K. Energy's distribution system that have or will reach their TUL of 25 years:



7.3.4.2 E.L.K. Energy's Sustainment Strategy

E.L.K. Energy's sustainment strategy is predicated on the following factors:

- The life expectancy of poles ranges from thirty-five (35) to seventy-five (75) years and condition is affected by many factors such as the soil condition and loading.
- E.L.K. Energy's inspection procedure is regulated by the OEB and as poles are inspected a determination is made as to whether they need to be replaced.
- A pole failure (depending on its function) can be a significant risk as the results of a failure could injure the public and result in lengthy interruptions in service to a widespread area and a large number of customers.

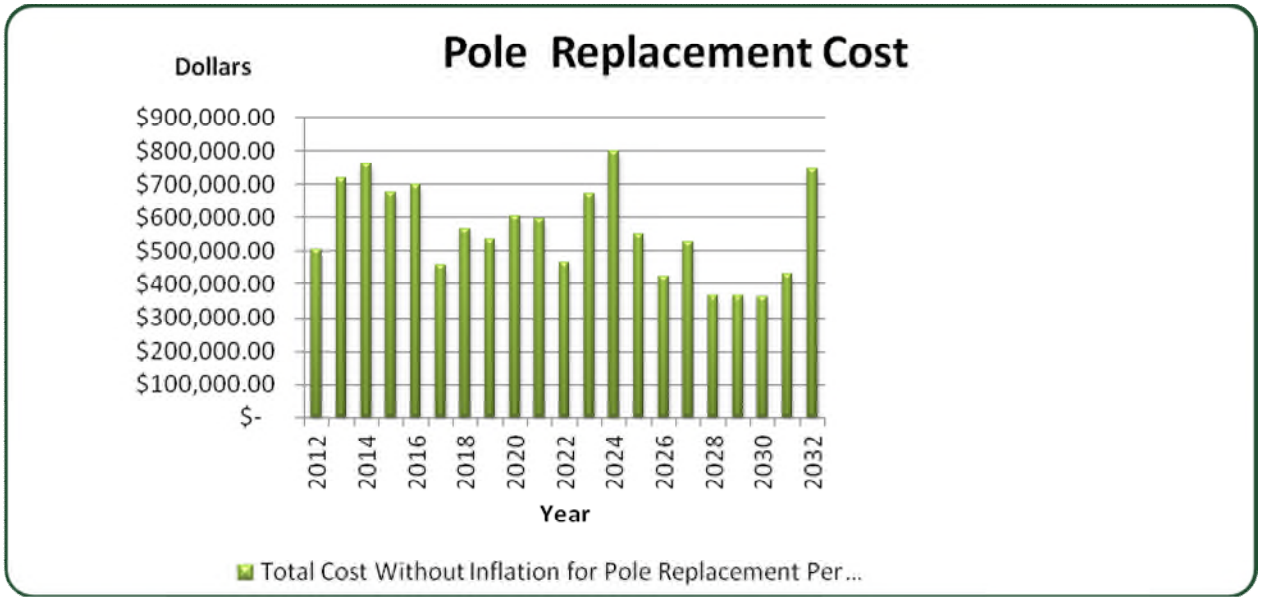
These factors have led E.L.K. Energy to adopt the following strategy:

- Inspect and monitor condition.
- Replace when conditions dictate replacement.

- Continuing with the conversions from 4.16 kV and 8.32Kv to 27.6Kv distribution system will eliminate a substantial amount of the older poles from the system.

7.3.4.3 Budgets and Forecast

The relative costs in each year to replace units at end of life using an average unit replacement cost of $4,000.00 would be as shown in the bar graph below:



- Replacements under a reactive approach are part of the Operations and Maintenance budget.
- Replacements under a preplanned approach are part of the Capital Budget.

7.3.5 Gang Operated Overhead Switches

7.3.5.1 Results of Asset Evaluation

Gang Operated Overhead Switches are installed in various locations within the 27.6Kv distribution system with a total of 17 switches installed. The age of gang operated switches is spread over a broad range 1975 to 2005. Their conditions are generally unknown due to lack of maintenance but because many switches are fairly new it is assumed that many are in very good condition. E.L.K. Energy has used a TUL of twenty-five (25) years for Gang Operated Overhead Switches. When 25 years is added to the year of manufacture the number of potential replacements at end of life can be forecasted. This projection revealed that in the next 20 years no switch reached its TUL.

7.3.5.2 E.L.K. Energy's Sustainment Strategy

E.L.K. Energy's sustainment strategy is predicated on the following factors:

- The life expectancy of gang operated overhead switches is in the range of sixty (60) years.
- E.L.K. Energy's Inspection and Maintenance program for switches is expected to begin in 2013. This program will allow better decision making in the near future with respect to switch maintenance and replacement.
- A switch failure is low risk.

These factors have led E.L.K. Energy to adopt the following strategy:

- Inspect, maintain, and monitor condition.
- Replace when conditions dictate replacement – thus, a proactive replacement basis.

7.3.5.3 Budgets and Forecast

The relative costs to replace units at end of life would be $28,000 using an average unit replacement cost.

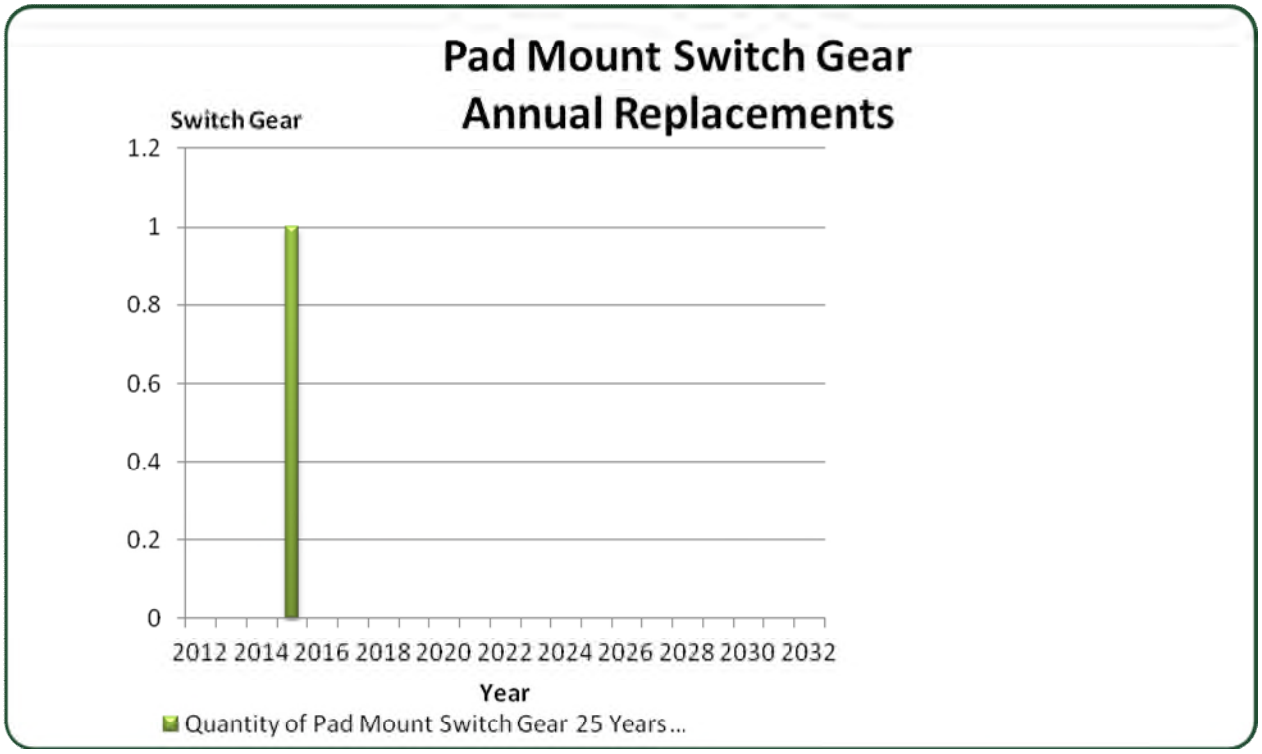
- Replacement is part of E.L.K. Energy's sustainment capital programs.
- The budgets for 2012 and 2013 do not have any replacements scheduled. The forecast reflects no replacements required.

7.3.6 Pad Mounted Switchgear

7.3.6.1 Results of Asset Evaluation

E.L.K. Energy's distribution system contains one (1) switchgear. The age of the switchgear is twenty-two (22) years. The condition is very good as the condition of the switchgear is monitored during the inspection process. E.L.K. Energy has used a TUL of twenty-five (25) years for pad mounted switchgear. When 25 years is added to the age distribution the number of potential replacements at end of life can be forecasted. This projection revealed that this unit is reaching its TUL in the year 2015.

Shown below is a bar graph indicating the above mentioned asset evaluation which shows when the Pad Mounted Switchgear unit in E.L.K. Energy's distribution system will reach its TUL of (25) years:



7.3.6.2 E.L.K. Energy's Sustainment Strategy

E.L.K. Energy's sustainment strategy is predicated on the following factors:

- The life expectancy of pad mounted switch gear units is in the range of 25 years.
- Continue with the inspection program to allow better decision making with respect to switch maintenance and replacement.
- The impact of a switch failure is significant risk. A significant customer outage would likely occur and the safety of the public and staff would be potentially impacted.

These factors have led E.L.K. Energy to adopt the following strategy:

- Inspect, maintain, and monitor condition.
- Replace when conditions dictate replacement – thus, a reactive replacement basis.
- Monitor conditions closely on a three year bases, if failure rates indicate an increasing trend change to a preplanned replacement program to minimize the financial and operational affects.

7.3.6.3 Budgets and Forecast

The relative costs in each year to replace units at end of life using an average unit replacement cost of $65,000.00 would be as shown in the bar graph below:

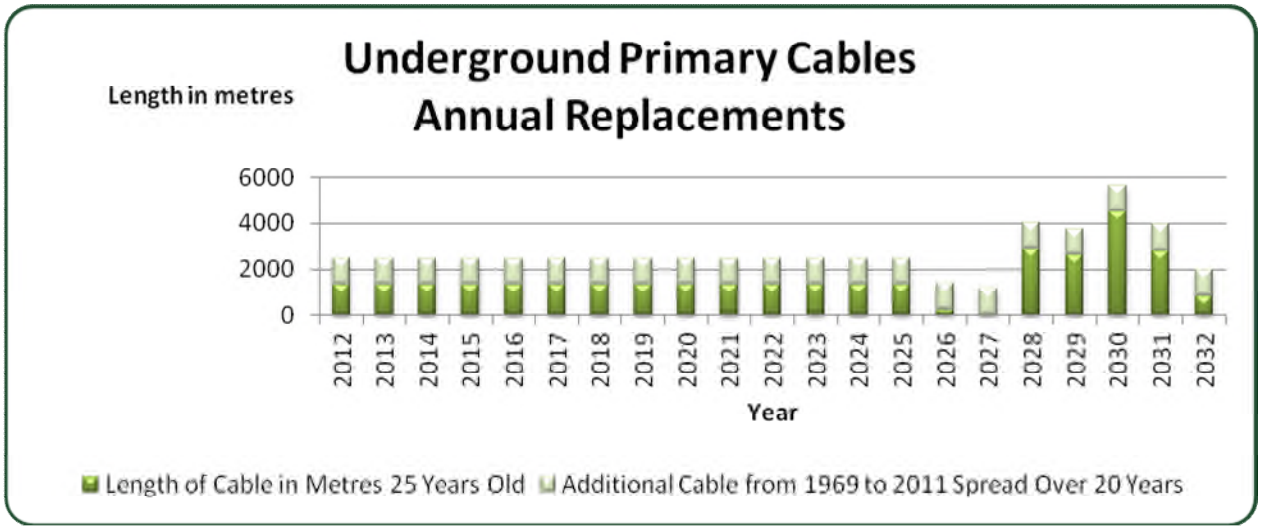
- Replacements under a reactive approach are part of the Operations and Maintenance budget.
- Replacements under a preplanned approach are part of the Capital Budget.

7.3.7 Cross-Linked Polyethylene (XLPE) Underground Cables

7.3.7.1 Results of Asset Evaluation

Cross-linked polyethylene (XLPE) underground cables are installed in mostly underground fed residential subdivisions. A small portion of cable serves as distribution feeders from our overhead distribution system where necessary. Their condition is generally very good. E.L.K. Energy has used a TUL of twenty-five (25) years for underground cables. Records for annual cable installations began in 2001. The first underground installations in E.L.K. Energy's service areas was in 1969. All cables installed prior to 2000 have been divided equally across the years of 1969 to 2000. The cable values for the years 2001 to 2011 are actual values. When 25 years is added to the date of installation the number of potential replacements at end of life can be forecasted. This projection revealed that starting in 2012 a total of 23.94km of underground cables will have reached their TUL of 25 years.

Shown below is a bar graph indicating the above mentioned asset evaluation which shows the number of Underground Cables in E.L.K. Energy's distribution system that will reach their TUL of twenty-five (25) years



7.3.7.2 E.L.K. Energy's Sustainment Strategy

E.L.K. Energy's sustainment strategy is predicated on the following factors:

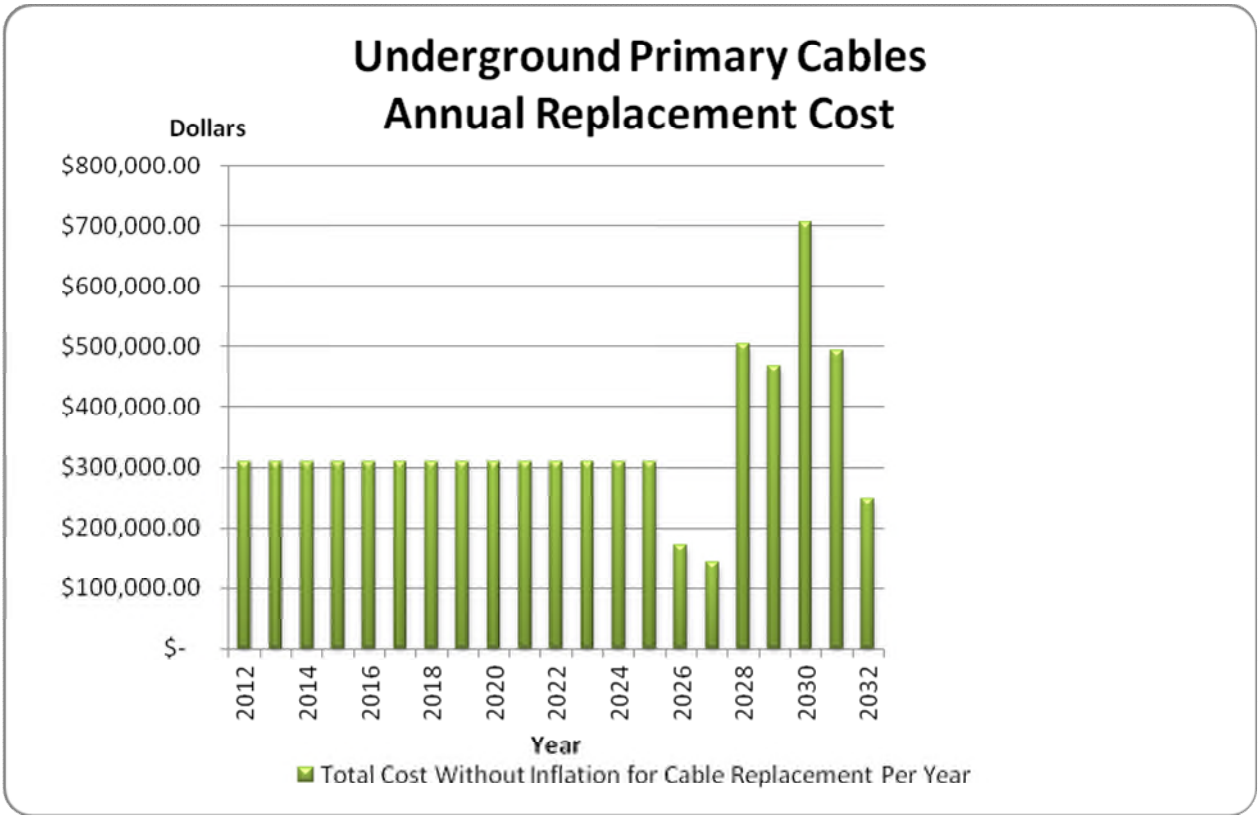
- E.L.K. Energy's Inspection and Maintenance program covers the terminations of cable only – these are exposed in pad mounted equipment and riser poles. Cable condition is only known for cables which fail in service. Failure information is tracked as part of the "cause" in E.L.K. Energy's reliability statistics. Cable replacement decisions would be based on failure history
- The impact of a cable failure is minimal. Customer outages are likely to remain within a residential subdivision and all cables can be isolated due to a loop system design (there is usually another way to supply the load).
- The safety of the public is not likely to be impacted because the cables are buried and not exposed.

These factors have led E.L.K. Energy to adopt the following strategy:

- Monitor the number of cable failures.
- Create a systematic replacement program when failure results indicate a systemic failure of that particular age or type of cable – thus, a reactive replacement basis.

7.3.7.3 Budgets and Forecast

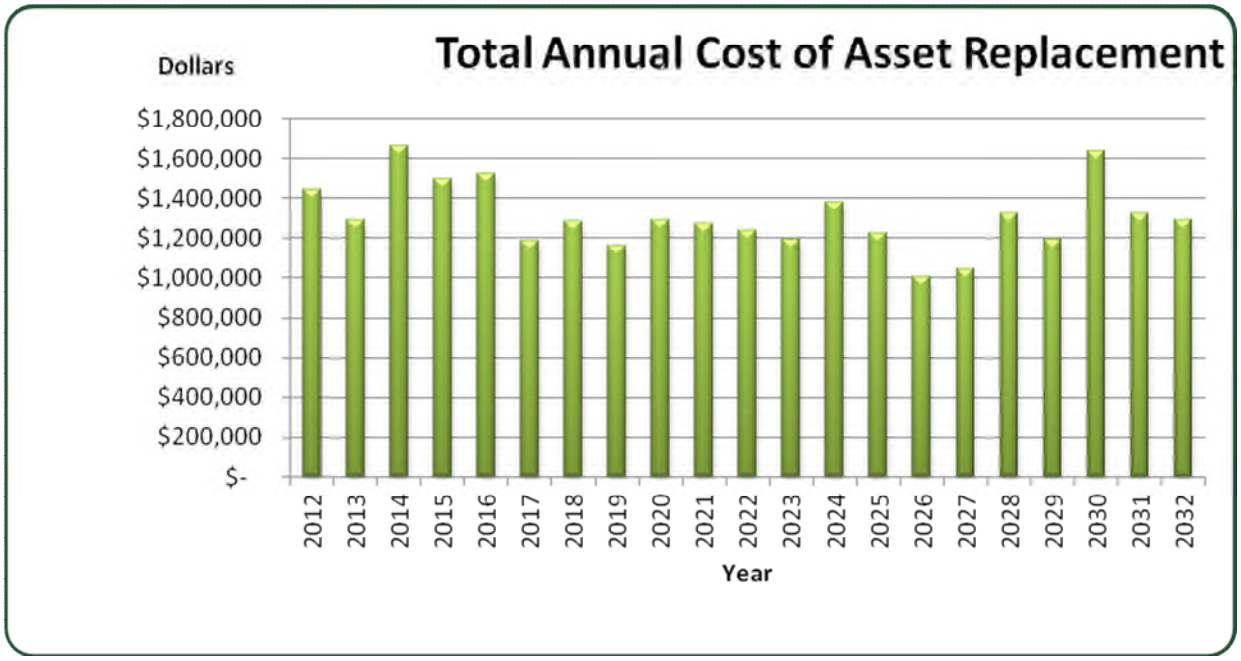
The relative costs in each year to replace cables at end of life using an average replacement cost of $125.00 per metre would be as shown in the bar graph below:



- Replacements under a reactive approach are part of the Operations and Maintenance budget.
- Replacements under a preplanned approach are part of the Capital Budget.

7.4 Total Annual Cost for Asset Replacements

The total annual costs (without inflation projection) in each year to replace the above mentioned assets listed in content 7.1 at end of life would be as shown in the bar graph below:



The average annual asset replacement cost for the 20 year period is $1,306,994.

8 Prioritized Capital Projects

Apart from the sustainment of existing assets in the distribution system there are other types of investment required in the distribution system. The first type can be called demand expenditures and they are required to supply the needs of a new customer or to enhance reliability in an area where system capacity is constrained. The second type of expenditure is called prioritized. On an annual basis, E.L.K. reviews capital projects identified for potential implementation and prioritizes each project based on defined criteria. All members of the management team follow these criteria as they individually complete outlines of their recommendations, which are then discussed by the full management team. After all recommended projects are examined, they are listed in order from highest to lowest priority and then moved forward based on an “as-needed” basis.

8.1 Typical Considerations in Developing New Prioritized Projects

Typically new assets are required as a result of the following drivers:

- Load Growth
- Security of Supply and Level of Redundancy
- Capacity of Assets
- Voltage Regulation
- Safety – Public and Staff
- Environmental Compliance

8.1.1 Load Growth

Load growth is influenced by a number of factors including:

- Population Growth
- Economy
- Effectiveness of conservation programs

In order to determine how growth might affect the distribution system a number of areas need to be analyzed. These include population forecasts, the number of new connections, the type of connections, and historical demand.

8.1.1.1 Population Growth

As E.L.K. Energy's customer base consists of 6 urban areas located in 3 municipalities there is no historical population historical data or future forecasts to estimate the population growth. Instead E.L.K. Energy utilizes historical customer counts to forecast future growth.

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011
January	9854	10081	10182	10279	10402	10568	10671	10757	10841	10711	10981	11044
February	9861	10096	10199	10323	10407	10576	10672	10797	10851	10710	10987	11061
March	9886	10042	10220	10323	10418	10598	10690	10807	10847	10720	10999	11075
April	9904	10060	10228	10344	10443	10594	10690	10817	10874	10741	11015	11078
May	9923	10074	10227	10341	10436	10588	10710	10808	10862	10747	11014	11073
June	9951	10082	10227	10371	10445	10604	10716	10803	10842	10735	11020	11055
July	9972	10082	10239	10382	10445	10594	10708	10809	10812	10738	11014	11060
August	10009	10118	10258	10390	10468	10604	10731	10793	10784	10752	11023	11080
September	10029	10114	10279	10400	10505	10619	10726	10820	10784	10736	11020	11162
October	10049	10145	10285	10407	10524	10637	10709	10822	10784	10741	11033	11211
November	10078	10159	10291	10414	10524	10627	10736	10833	10851	11010	11044	11181
December	10081	10185	10299	10414	10556	10617	10744	10833	10851	10727	11047	11179
Average	9966	10103	10245	10366	10464	10602	10709	10808	10831	10755	11016	11105

The population is expected to rise by twenty-two (22) percent between 2012 and 2032 - on average 1 percent per year.

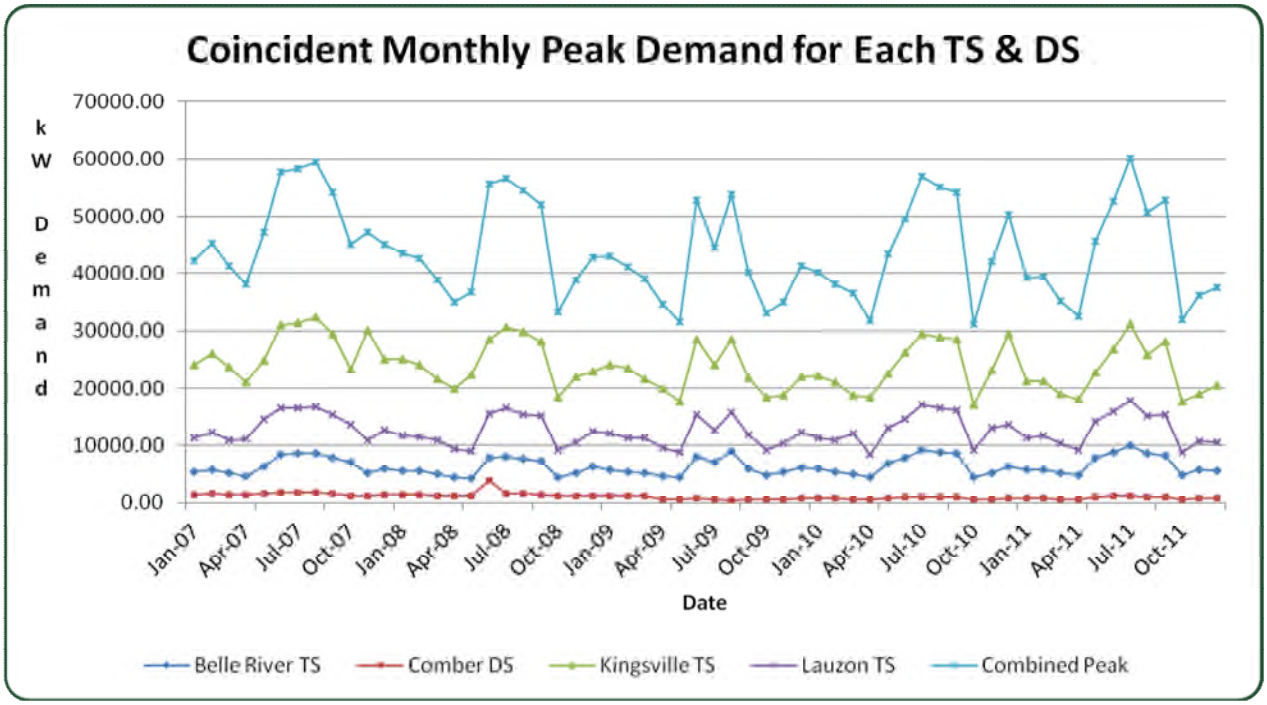
8.1.1.2 Number of New Connections

E.L.K. Energy's new connections slowed from 2005 – 2009 with the downturn in the economy. New connections began to increase in 2010 and appear to be returning to near historical levels. The following table shows the specifics. It should be noted that these connections represent low voltage connections.

	2005	2006	2007	2008	2009	2010	2011	2012
January	8	8	17	14	9	10	10	7
February	21	5	13	8	6	6	4	9
March	4	7	8	4	7	6	5	4
April	15	10	4	10	7	3	9	
May	13	13	14	14	12	8	4	
June	10	17	13	10	8	17	9	
July	14	13	7	7	3	8	22	
August	13	8	15	18	6	16	35	
September	13	17	3	6	16	10	15	
October	16	15	11	10	8	12	7	
November	9	12	9	7	7	8	12	
December	12	11	9	9	7	11	6	
Totals	148	136	123	117	96	115	138	20

8.1.1.3 Peak Demand

E.L.K. Energy has been recording the monthly demand peaks at each of the 3 TS's and 1 DS. The data from each station for the period from 2007 to 2011 is shown in the following graph:



The demand is based on hourly data provided from the IESO which is not adjusted for losses and monthly peaks between stations are coincident. It is evident that there are no distinct growth patterns in the peak demand for any of the TS's or DS.

8.1.1.4 Conclusion

Although the economy is currently very slow it is nonetheless expected to grow over the twenty (20) year timeframe of this plan. At this time it is unclear how the population growth will specifically affect the distribution system. Growth over the period from 2006 to 2010 has not appreciably affected the peak demand. Future revisions of this plan will need to account for potential growth as and when it materializes.

8.2 Capital Projects Prioritization Model

In the past E.L.K. Energy's asset strategy was built on rebuilding 4.16kV distribution lines at 27.6kV to support the elimination of its aging 4.16kV distribution station. This program was completed Q3, 2012. Prior to commencement of budget proceedings for 2014 E.L.K. Energy will need to further develop a means to prioritize capital projects. Other utilities have developed prioritization strategies either in house or through the assistance of third party consultants. These strategies will be reviewed and E.L.K. Energy will prepare a model that takes into consideration E.L.K. Energy's specific circumstances.

It should be noted that sustainment type projects are not evaluated using this model. Sustainment projects are not discretionary because an existing asset is at the end of its useful life and must be replaced.

8.3 Past Capital Project Decision Process

Notwithstanding E.L.K. Energy's asset strategy leading up to 2013 as noted above in Section 8.2 it is still necessary to evaluate individual projects based on a number of factors which are specific to E.L.K. Energy's service territory. In preparation for the setting budgets of the past the following considerations were made to decide which projects should be included in any given year:

- Financial
    - Reduction of future operating costs
    - Reduction of losses
- Reliability
    - Impact to SAIDI, SAIFI, and power quality (low voltage, etc.)
- Safety
    - Public
    - Staff
- Customer Relations
    - Impact/effect on customers
- Regulatory
    - Compliance with regulatory statutes
- Environmental
    - Elimination of risk of contamination to the environment – oil spills

Once the priorities are decided, a preliminary project design and estimate is made for each project.

8.4 2012 and 2013 Prioritized Capital Projects

The prioritized projects in the 2012 and 2013 budgets were evaluated using best engineering judgment based on the experience of the Operations Manager and the Line Subforeman. The criteria used are noted above in Section 8.3

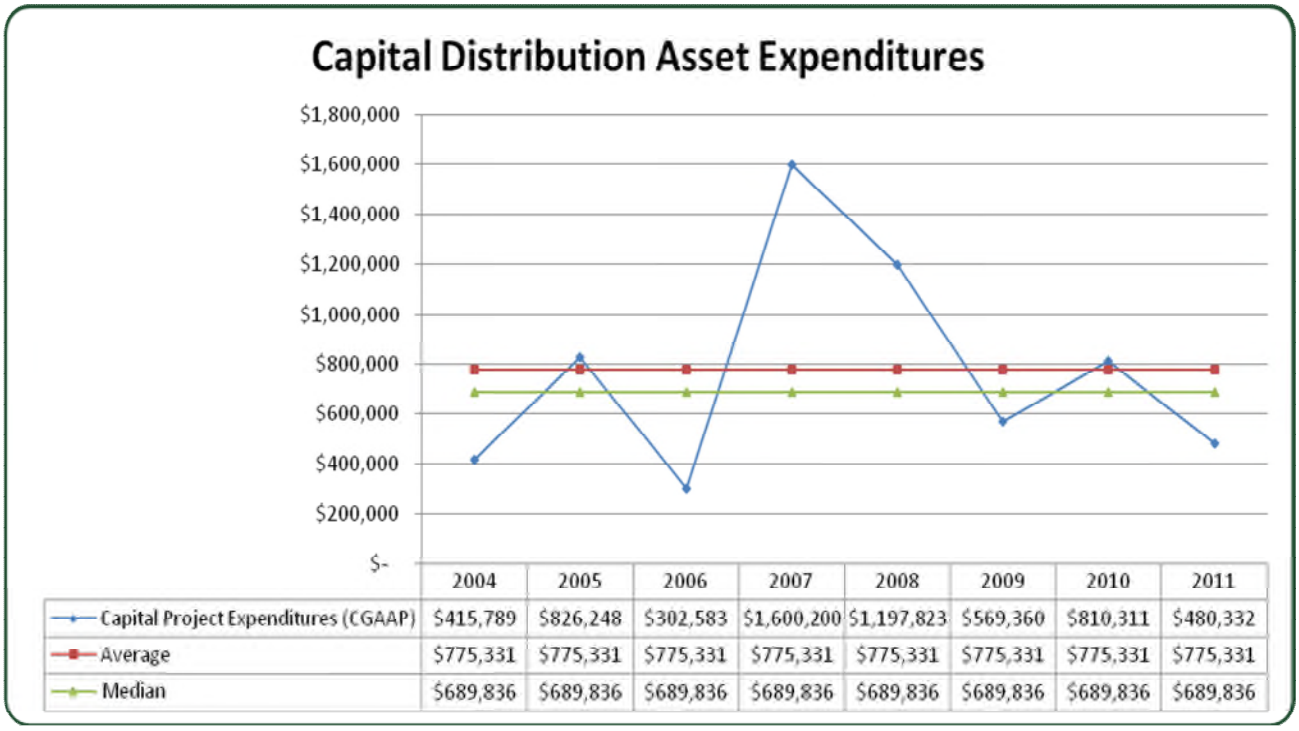
Please refer to Appendix D and Appendix E for more details on the prioritized projects for 2012 and 2013.

8.5 Five Year Forecast

As a result of E.L.K. Energy's asset strategy leading up to 2013 a forecast was not necessary as the projects were dictated by the need to eliminate 4.16kV distribution lines and the expenditure in each year was kept relatively stable. A graph depicting the actual expenditures (distribution assets not including smart meters) plus projections for 2011 and 2012 is shown below. As shown in the graph the average expenditure over the years 2004 to 2012 (based on CGAAP) is $775,331 and the median slightly below at $689,836.

E.L.K. Energy's intention is to create a five year forecast to coincide with its newly developed asset strategy. For purposes of supporting E.L.K. Energy's cost of service rate application in 2012 a 2 year forecast has been developed using the data from the asset condition assessment as a proxy for the approximate minimum cost in both 2013 and 2014. No specific projects are yet available for 2013 or 2014.

At this time E.L.K. Energy is forecasting that for 2013 it will focus on eliminating all 8kV distribution lines in the Comber service area as Hydro One intends to eliminate the 8KV distribution station servicing it. After that is complete, E.L.K. Energy will focus on utilizing the DAMP for a guide in creating and prioritizing asset replacement projects. As this DAMP revealed, E.L.K. Energy will have to spend on average (minimum) of $1,306,994 per year (without inflation projection) to replace aging assets in order to continue to provide a cost effective, safe and reliable electrical service to its customers for the next twenty (20) years.



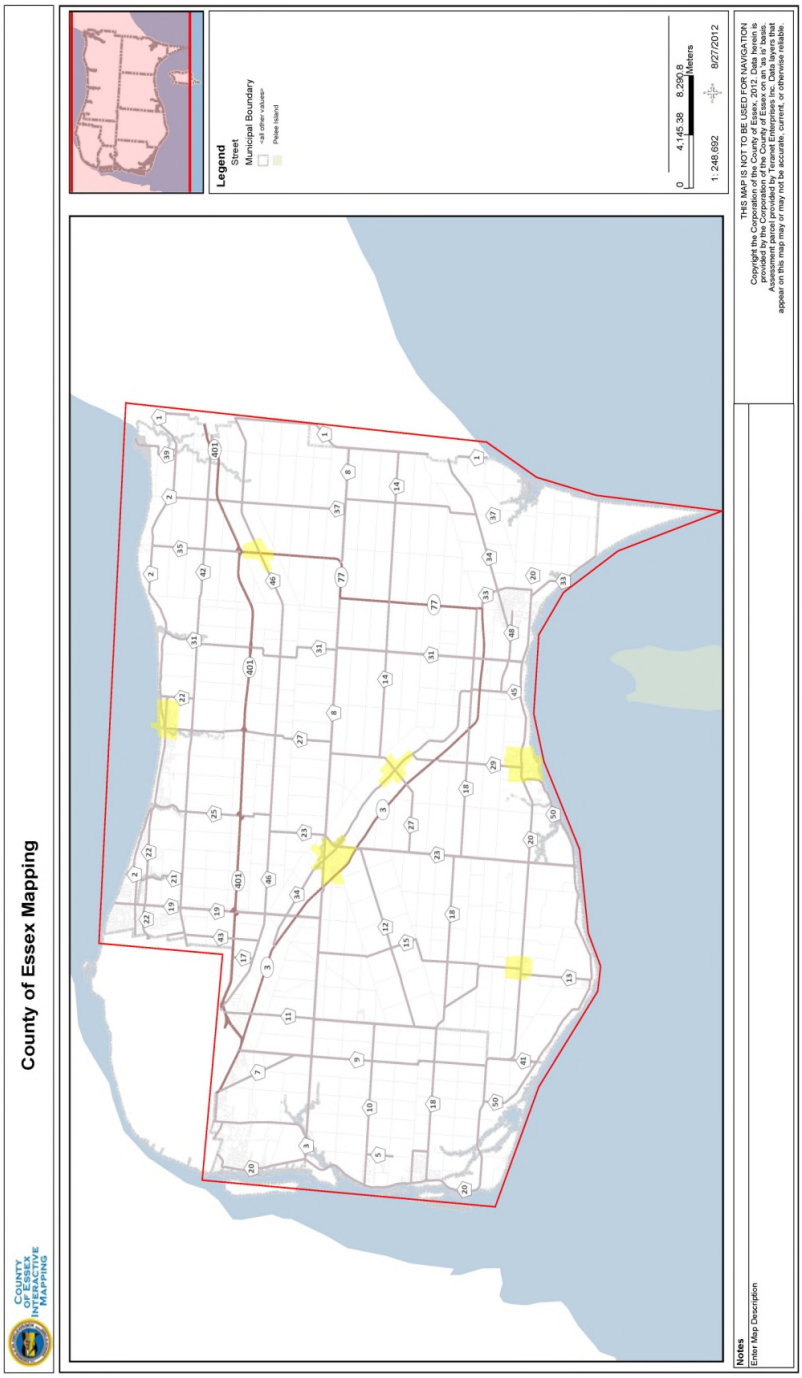
	2004	2005	2006	2007	2008	2009	2010	2011
Capital Project Expenditures (CGAAP)	$415,789	$826,248	$302,583	$1,600,200	$1,197,823	$569,360	$810,311	$480,332
Average	$775,331	$775,331	$775,331	$775,331	$775,331	$775,331	$775,331	$775,331
Median	$689,836	$689,836	$689,836	$689,836	$689,836	$689,836	$689,836	$689,836

Appendix A

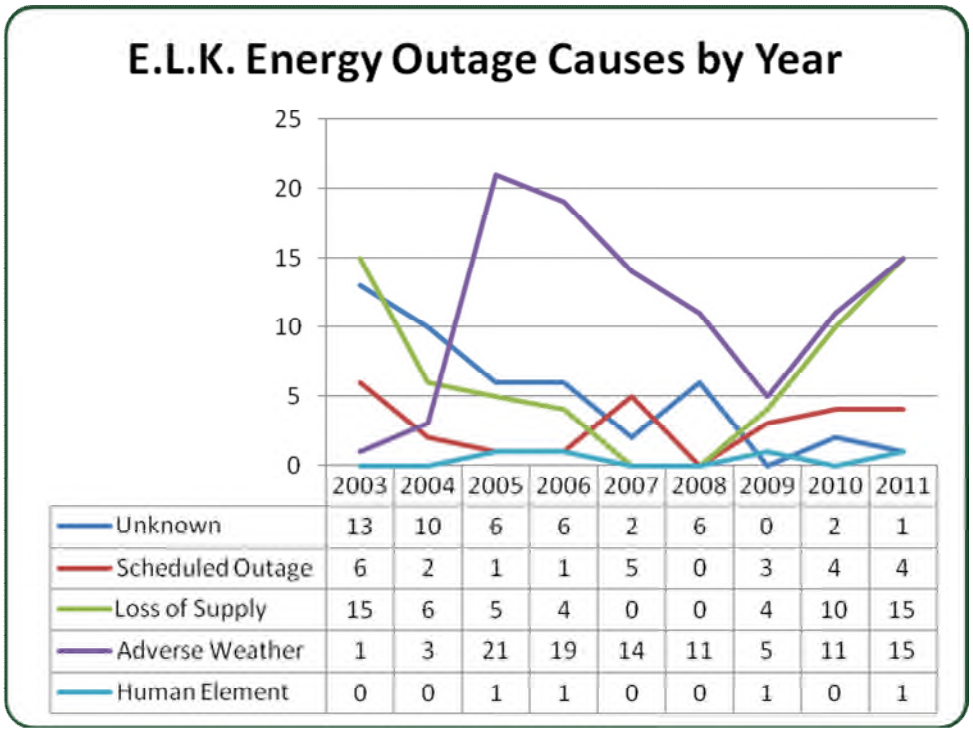
Summary of Assets (as at December 31, 2011)

Category	Original Cost	% of Total
Distribution Stations	$142,098	0.67%
Distribution Lines - Overhead	$7,163,888	33.61%
Distribution Lines - Underground	$8,498,535	39.87%
Distribution Transformers	$5,511,324	25.86%
Total	$21,315,845	

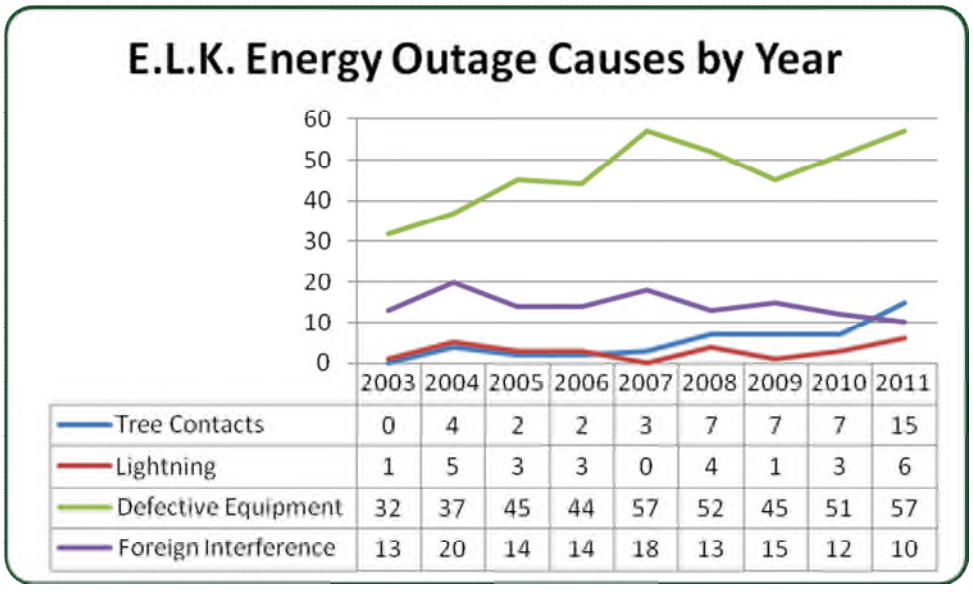
Appendix B
Service Territory Marked in Yellow



Appendix C
Outages by Cause



	2003	2004	2005	2006	2007	2008	2009	2010	2011
Unknown	13	10	6	6	2	6	0	2	1
Scheduled Outage	6	2	1	1	5	0	3	4	4
Loss of Supply	15	6	5	4	0	0	4	10	15
Adverse Weather	1	3	21	19	14	11	5	11	15
Human Element	0	0	1	1	0	0	1	0	1



	2003	2004	2005	2006	2007	2008	2009	2010	2011
Tree Contacts	0	4	2	2	3	7	7	7	15
Lightning	1	5	3	3	0	4	1	3	6
Defective Equipment	32	37	45	44	57	52	45	51	57
Foreign Interference	13	20	14	14	18	13	15	12	10

Appendix D
Prioritized Capital Projects for 2012

Project Name – Cottam Voltage Conversion

- Complete secondary transfers from previous conversion project.
- Budgeted cost for above mentioned project is $14,587

Project Name – Kingsville Voltage Conversion and Distribution Station Decommissioning

- Complete the rear lot conversion of 2 transformer banks and 3 single phase transformer once the ground can accept truck traffic.
- Decommission the Kingsville DS.
- Budgeted cost for above mentioned project is $52,417

Project Name – Viscount Estates Underground Primary Cable and Live Front Transformer replacement

- Estimated 600 m of new primary underground cable installed by directional drill. Cable is being replaced as it is at its end of life and failures are increasing.
- Estimated 6 pad mounts to replace 6 live front transformers to accept the new cable. These transformers are at their end of life as well and repair parts are becoming increasingly difficult to find. The removed transformers will be utilized for repair parts.
- Budgeted cost for above mentioned project is $202,703.

Appendix E
Prioritized Capital Projects for 2013

Project Name – Comber Voltage Conversion

- Estimated 5 new poles to be installed to replace existing poles.
- Estimated 20 new transformers to be installed to replace existing transformers.
- Lower secondary bus and neutral.
- Budgeted cost for above mentioned project is $256,794