



TRAVERSE CITY
LIGHT & POWER

Investing Our Energy In You

Traverse City Light & Power Strategic Plan



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Introduction from the Executive Director

After successfully serving the City and surrounding areas for 103 years, the Board of Traverse City Light & Power (“TCL&P”) embarked on developing a new Strategic Plan (“Plan”) that could challenge the public power utility to exceed customer expectations while meeting the ever changing challenges of the electric utility industry. Safety, high reliability, low rates, transparency, and exceptional customer service and communications are among the core values of the utility. This Plan was created with these basic core values always in mind.

The purpose of the Plan is to serve as a guiding document of the Board and utility staff and to support the vision and mission of the utility by achieving goals and objectives that enhance the value of the utility to its owners and the community it serves.

This Plan for TCL&P is the result of a very intense planning process facilitated by professional industry experts and the dedicated efforts of the Board, staff, and employees.

Going forward, the Plan provides a blueprint for strategic planning and goal setting into the future. Quarterly, the utility staff will report to the Board on its progress toward specific goals identified in the Plan. On an annual basis, staff and the Board will update the Plan to meet changes in the industry, economy, and to meet changes in customer needs and expectations. This annual review, as is required in the Strategic Plan Board policy, will enable the Plan to remain a relevant guiding document for TCL&P in this ever-changing utility industry.

Timothy J. Arends
Executive Director

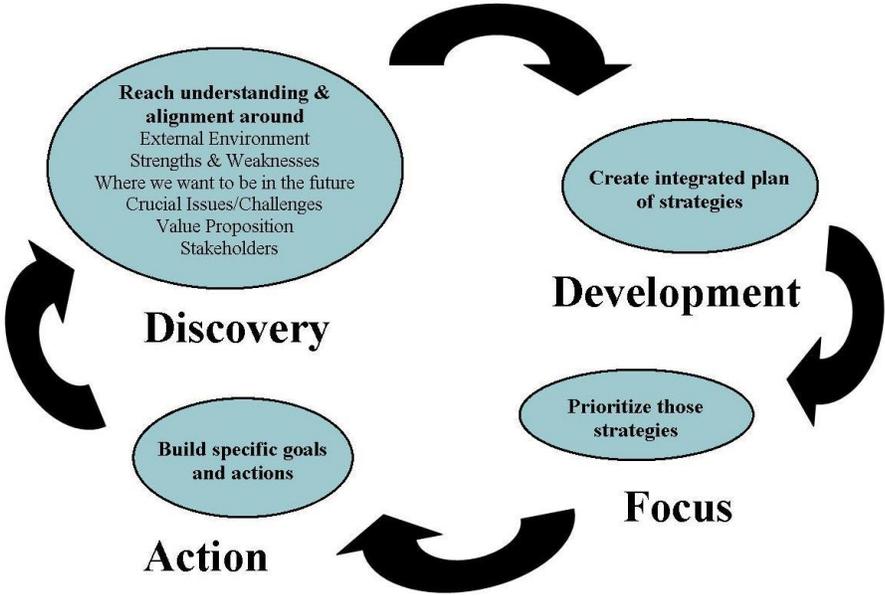


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1. Understanding Traverse City Light & Power

1.1 History

In the early 1900's, as demand for electric power grew in Traverse City, competition to meet this demand grew as well. The Queen City Light & Power Company was in operation only a few short years as a direct competitor to Boardman River Electric Light and Power Company. In September 1912, the City of Traverse City purchased Queen City Light & Power for \$150,000. The purchase included sixty acres at Keystone and the property and flowage rights seven miles upstream including the Brown Bridge Dam area and pond. The new power company was known as the Traverse City Municipal Light and Power Department, known today as Traverse City Light & Power ("TCL&P") Department.

In the early days of TCL&P working conditions were challenging. Linemen camped in tents and worked with teams of horses to haul poles into place. Holes were dug by hand using picks and shovels. Linemen had to manually combat the elements, especially in winter.

Attracting new commerce to the Grand Traverse area required reliable and plentiful electric power. In 1920, the Traverse City Chamber of Commerce had to pause its efforts in pursuing new businesses because of the lack of such power. Fortunately, in 1921, the construction of Brown Bridge Dam began. Once completed in 1922, the dam produced reliable energy for TCL&P for the next 80 years.



In 1928, the first steam turbine was added to the Traverse City Waterworks building, which became the site of TCL&P's coal-fired Bayside Power Plant.

In 1937, TCL&P celebrated 25 years of supplying electricity to Traverse City. During this time, growth had continued to drive electric demand. A second steam turbine was installed in the Bayside Power Plant with an additional capacity of 1,000 kilowatts; the largest at that time and necessary to keep Traverse City growing and thriving.



In 1948, an \$850,000, five-year expansion program for the Bayside Power Plant was approved. This new capital would allow TCL&P to purchase new equipment to increase generation capacity. Throughout the late 40's and 50's, TCL&P added new and more powerful generators, opening the way for more growth and prosperity for the Traverse City area.

Other milestones and events occurred that would further impact the delivery of electricity to Traverse City residents and businesses. In 1950, Consumers Power Company purchased all assets of the Michigan Public

Service Company. In 1961, the Keystone Dam washed out due to heavy rains and extensive flooding of the Boardman River. That dam was never rebuilt.

In 1964, the city explored the possibility of expanding the Bayside Power Plant at a cost of \$3.5 million. In 1965, voters approved the expansion by an over 2-to-1 margin and construction began. In 1967, the Bayside Power Plant expansion was completed. The peak of the new addition was almost 99 feet; roughly the height of the top of the historic Park Place Hotel. The height was necessary to house the overhead coal conveyor and handling system.



During the blizzard of 1977, work crews had to brave snow depths of 18 inches and more to restore power. Fortunately, because TCL&P had locally generated power, TCL&P customers had plenty of power for their consumption needs during that tough winter, while other major Midwest utilities had to ask customers to cut down on their consumption. The utility hit a lifetime peak production of 22,200 kilowatts on January 19, 1977.

In 1976, as the electric utility industry and how it operated had become more complex, the City Commission established an ad hoc committee to study the advisability of establishing a separate TCL&P Board. In January 1977 the ad hoc committee submitted its recommendation to create a two-year TCL&P Advisory Board which was approved by the voters in April 1977. In 1979 the TCL&P Advisory Board submitted a draft charter amendment to the City Commission, a public hearing was held, and the City Commission approved putting the draft charter amendment on the next ballot. After much analysis and public input, the voters approved the creation of the TCL&P Board on April 2, 1979.

In 1981, the Department of Natural Resources (“DNR”) and TCL&P began discussing the development of a Fish Management Plan for the migratory fish, primarily salmon, that ran up the Boardman River each fall. After numerous meetings and approvals of the City Commission, the Michigan DNR, the Natural Resources Committee and the TCL&P Board, the Boardman River Trap and Transfer Harvest Facility was approved. The facility, located east of Hall Street, was completed in 1987.



In 1988, TCL&P held its first annual tree seedling giveaway at the Bayside Power Plant in celebration of Earth Day. Seedlings were given away to customers and local community groups.

1996 was a major milestone year for TCL&P. The utility, long committed to exploring renewable energy sources, pioneered the first utility grade wind turbine in Michigan. The turbine was installed on M-72 and was, at the time of installation, the largest utility grade wind turbine in the United States.

Prior to the installation of the M-72 wind turbine, TCL&P developed the Green Rate. This rate allowed customers to voluntarily pay more on their monthly utility bill. The money collected went towards paying for the wind turbine, thereby supporting renewable energy. The

Green Rate was the first of its kind in the country and is now used as a model nationwide.

As the new millennium approached, TCL&P was on the cusp of significant changes and innovations. In 2002, TCL&P, along with four other municipal electric utilities, participated in the Michigan Public Power Agency's natural gas-fired combustion turbine project in Kalkaska, MI. The project continues to provide reliable energy to the electric grid during peak demand times in the summer and winter months.



In 2005, the Bayside Power Plant (located in Traverse City's "Open Space" on West Grand Traverse Bay), which had been relegated to a lesser role of peak power support, was removed. Parts of the plant were sold to a Honduran company that planned to reassemble the power-generating portion of the plant in Guatemala.

In the fall of 2006, the license to generate electricity at the Boardman, Sabin and Brown Bridge dams was surrendered to FERC. The Brown Bridge Dam was removed in 2013 with plans to also remove Sabin and Boardman dams in the near future.

In response to Michigan Public Act 295 legislation, in 2009 TCL&P contracted to purchase all generation output from five, two-megawatt wind turbines located in McBain, MI. In the fall of 2010, when all five turbines were operational, TCL&P had the highest percentage of renewable generation to total generation of any utility in Michigan.

Also in 2010, stemming from TCL&P's announcement to construct a biomass generation facility, a ballot proposal was approved by voters to amend the City Charter to provide that any decision to build or acquire a power generation facility shall be subject to a referendum of city resident voters.



In 2012, TCL&P celebrated its 100th Anniversary. TCL&P's focus remains much the same as it has over its many years of service, providing customers with safe, reliable and affordable electricity.

In March of 2012, TCL&P experienced one of the worst winter storms in the utility's history. At the peak of the storm, approximately 8,000 of TCL&P's 11,500 customers experienced outages. Due to the extent of the storm, TCL&P enacted a mutual aid agreement to request assistance from other electric utilities to help in the restoration effort. This was the first time in utility history that TCL&P requested mutual aid. Crews from Lansing Board of Water & Light, Grand Haven Board of Light & Power, Zeeland Board of Public Works, Lowell Light & Power, Trees Inc. and NG Gilbert responded and provided assistance. All TCL&P customers were restored within three days of the initial storm while some customers in the surrounding areas experienced outages for more than one week.

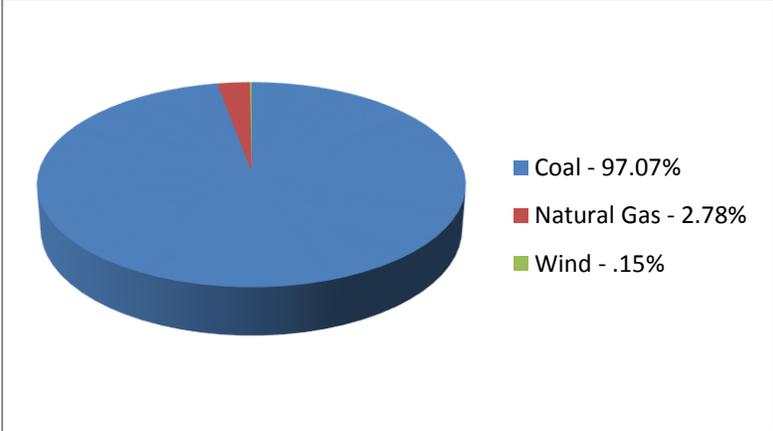
In the spring of 2013, TCL&P partnered with Cherryland Electric Cooperative to offer the first Community Solar Project in Michigan. The project allowed TCL&P customers to purchase a SUN Share (one solar panel) in the project and receive a monthly bill credit equal to the amount of energy produced by their share. In addition to the project being the first in the State of Michigan, it was also the first such partnership in the United States between a municipal and cooperative utility.



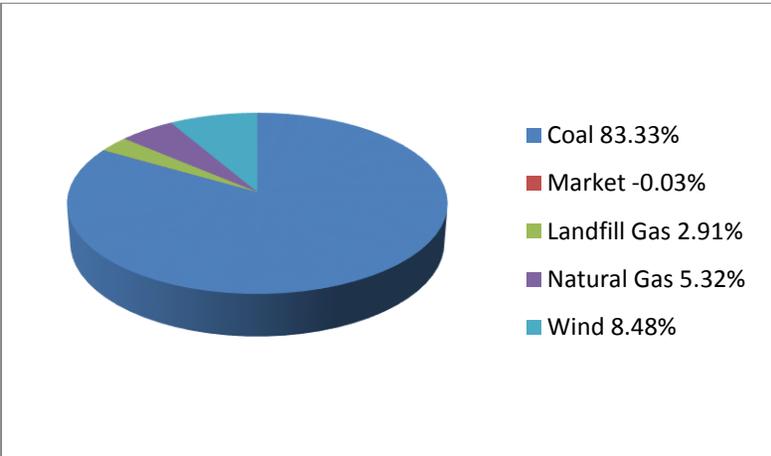
Also in 2013, after 18 years in operation, the TCL&P Board approved the decommissioning of the TCL&P wind turbine located on M-72 after a series of mechanical failures and unsuccessful attempts to repair the unit.

In December of 2014, TCL&P signed over ownership of the M-72 wind turbine to Heritage Sustainable Energy, LLC, owners of Stoney Corners Wind Farm in McBain, MI and entered into a Power Purchase Agreement to buy the output of the turbine.

1.2 Current TCL&P Power Supply Makeup



2009 Calendar Year



2014 Calendar Year

Generation purchased off the Market may be coal or natural gas.

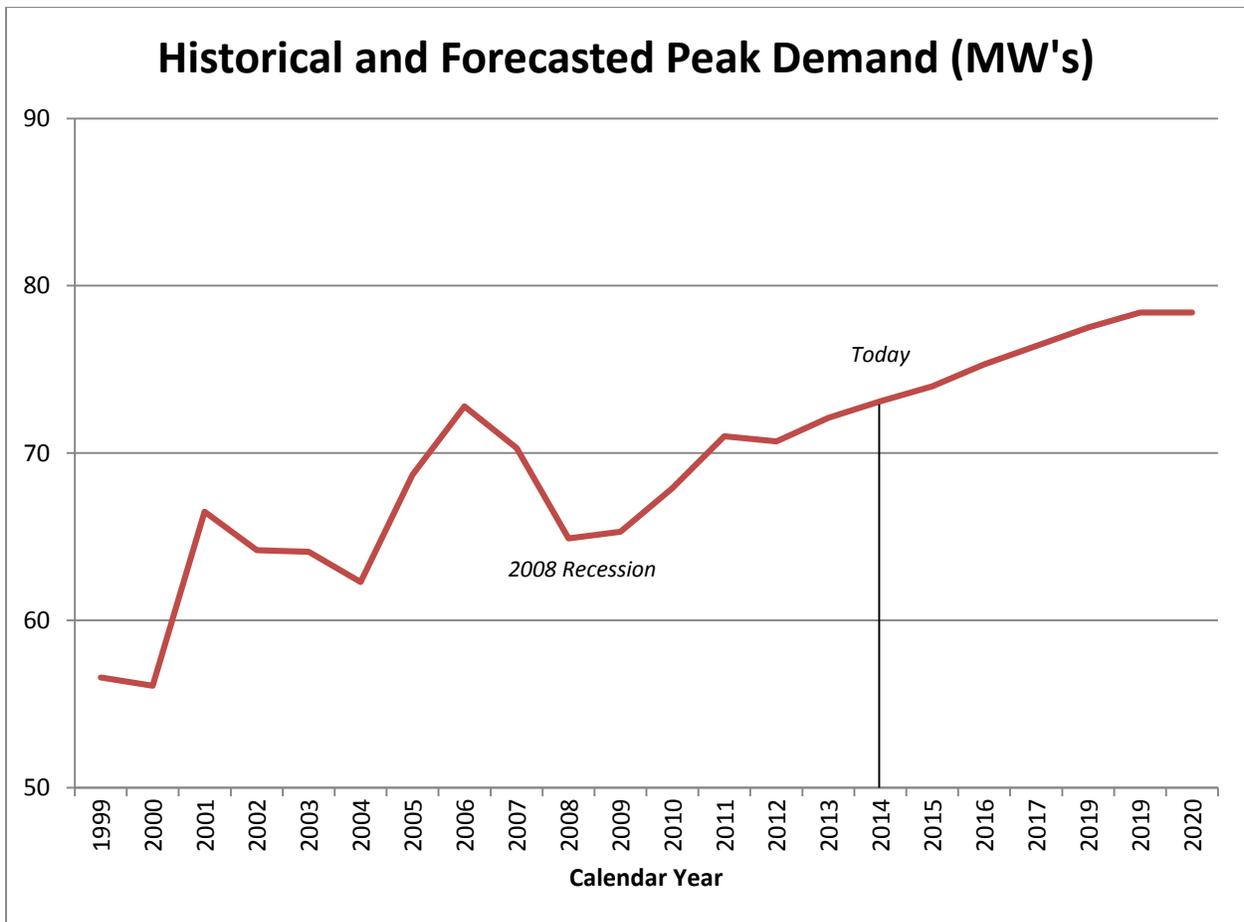
As displayed in the charts above, TCL&P’s power supply has significantly changed from 2009 to 2014, primarily motivated by Public Act 295 signed into law on October 6, 2008. The Act, known as the Clean, Renewable and Efficiency Energy Act, established a Renewable Energy Standard for all utilities in the State of Michigan. This Renewable Energy Standard requires Michigan electric providers to achieve a retail supply portfolio that includes at least 10% renewable energy by 2015.

As a mechanism to meet this renewable standard, TCL&P entered into a purchase power contract with Heritage Stony Corners Wind Farm, LLC to provide renewable capacity of up to 10 mega-watts (“MW”) and all associated renewable energy credits. Additionally, TCL&P entered into a purchase power agreement with Heritage Sustainable Energy, LLC to purchase the output of the M-72 wind turbine previously owned by the utility.

Another factor affecting the utility’s generation portfolio was the elimination of the Michigan Power Agency Pool in December 2010, which was replaced with a purchase power contract with Lansing Board of Water & Light (“LBWL”) composed of electricity from LBWL’s Eckert Coal Generating Plant. This agreement allows the minimum purchase of 10 MW of electric energy up to a maximum of 45 MW to replace TCL&P’s deficient energy needs. This is a five year contract set to expire on December 31, 2015, with an automatic extension of one year.

Another separate contract was entered into with LBWL to serve as TCL&P’s energy services agent for purchasing and selling deficient/excess energy in the MISO market.

TCL&P, along with other Michigan municipal utilities, is a member of the Michigan Public Power Agency (“MPPA”). The agency was formed to acquire interests in certain electric generation plants and related transmission lines to service its members. In 1983, through MPPA, TCL&P entered into a purchase power agreement for 26.35% of the energy generated by MPPA’s 4.8% interest in the Campbell 3 plant; and in another agreement, 4.53 % of the energy generated by MPPA’s 18.6% interest in the Belle River Plant. In 2002, TCL&P entered into a 25-year power supply contract for 75.9% of MPPA’s Kalkaska Combustion Turbine project. In 2009 TCL&P contracted for 8.13% of energy generated in MPPA’s landfill gas renewable energy contract with Grainger Electric of Michigan, LLC. Most recently, in 2014 TCL&P entered into an Energy Services Agreement with MPPA, whereby, MPPA on behalf of the utility will secure power and energy for the utility’s present and future needs through contractual agreements.



This chart represents TCL&P’s historical and forecasted peak demand from 1999 through 2020. Forecasted amounts in years 2014 and beyond were based on an Integrated Resource Plan prepared for TCL&P by R.W. Beck, Inc. in 2010.

1.3 Governance

The TCL&P Board was created in 1979 as a discrete component unit of the City of Traverse City and is referred to in the City Charter as a Department. A separate board was created to manage all aspects of the utility, with the City Commission approving its budget.

The TCL&P Board is a seven member board appointed by the City Commission, plus one non-voting ex-officio member, the City Manager. At least five of the seven members are non-commissioner members with five year alternating terms. One of the five may be a non-city resident, but must be a TCL&P customer. As part of the seven member Board, at least one member, but no more than two, must be a City Commissioner that serves a two year term.



The City Commission also approves the utility's budget, six-year capital improvements plan, and authorizes bond issues. In addition, the City Commission approves ordinance change requests, approves agreements that directly impact the City, and provides for the utility's vehicle fleet needs through the Garage Internal Service Fund.

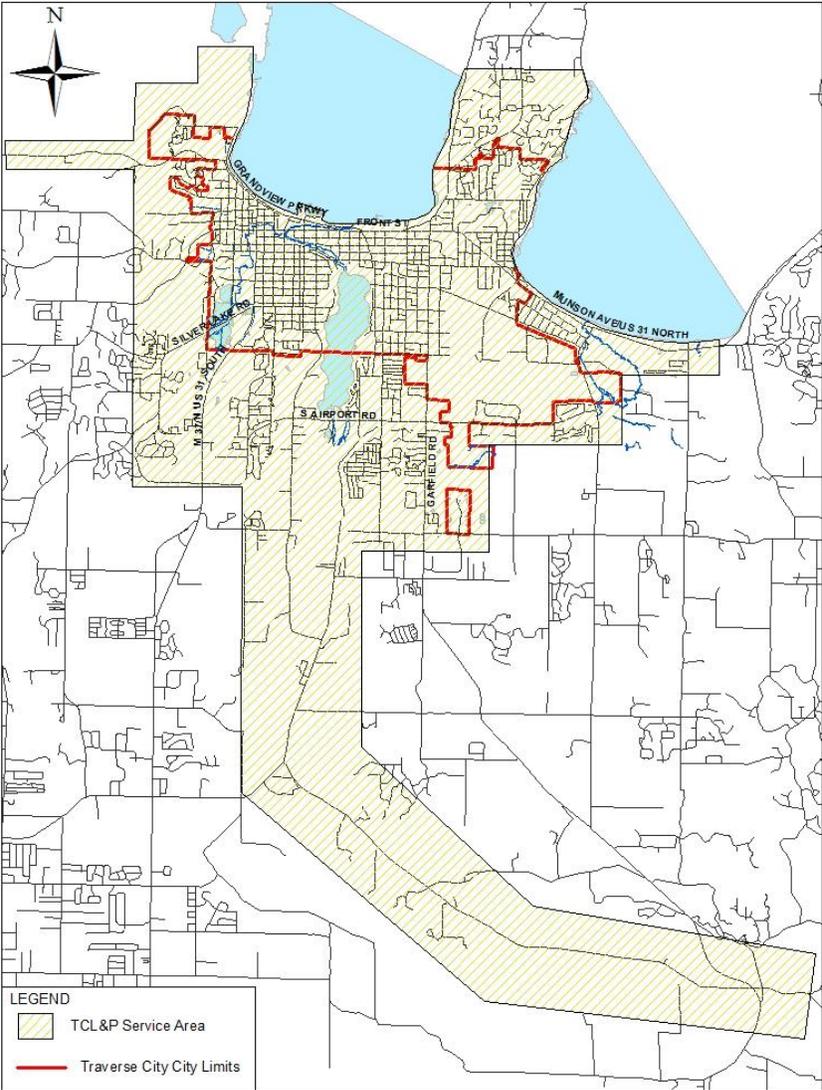
Customarily, one annual joint study session of the City Commission and the TCL&P Board takes place to discuss various current topics and the future direction of the utility.

1.4 Customer Base

TCL&P provides services to Traverse City and part of the outlying areas in Blair, East Bay, Elmwood, Garfield, Paradise and Peninsula Townships. Customers inside the city limits represent 77% of the utility's customer base and 72% of its revenues; customers outside the city limits represent 23% of the utility's customer base and 28% of its revenues.

As of fiscal year-end, June 30, 2014 the utility served an average of 12,417 customers and sold 327,292 mega-watt hours ("MWH") of electricity. 75% of the utility's customers are residential that provide 20% of the utility's revenues; conversely, 25% are commercial customers that provide 80% of the utility's revenues. An average residential customer uses 562 kWh per month, which equates to a monthly bill of \$62.55.

TCL&P Service Area Map



1.5 Rates

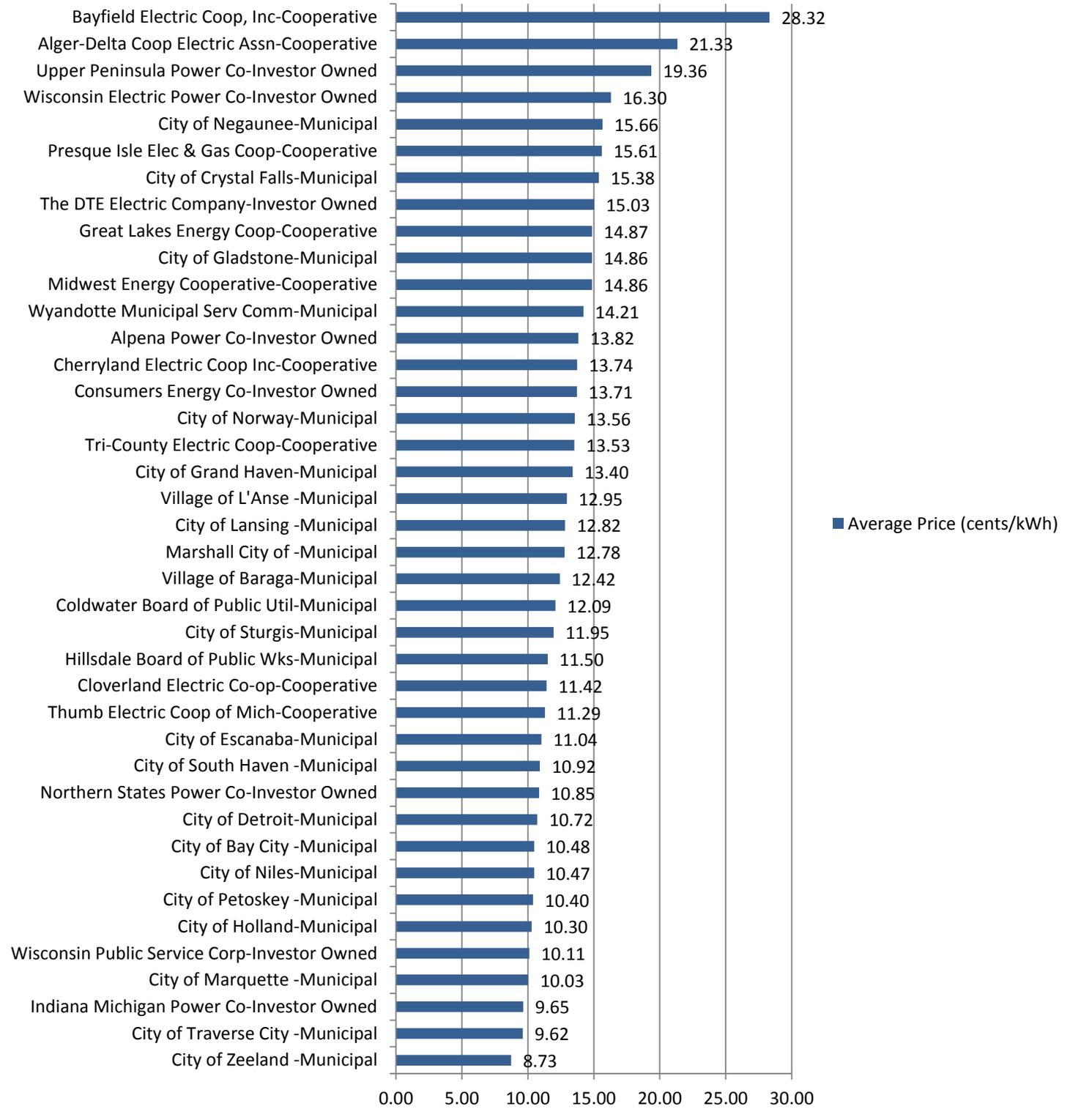
Of the forty utilities surveyed in 2014, TCL&P rates are the seventh lowest rates for residential. Small commercial rates are ranked twenty-third, while TCL&P’s large commercial is eleventh lowest in the state. TCL&P’s last rate increase was in 2014, which was the first rate increase in eight years; however, purchased power costs have increased over the years which has directly impacted customer billings through a Power Cost Recovery rate.

The following graph represents State of Michigan Average Residential Price and was obtained from the U.S. Energy Information Administration and reflects the latest public provided data, 2012.

Rates are established to cover cost of services. TCL&P currently maintains an electrical infrastructure that amounts to approximately \$48M in capital investment. Investments include 350 miles of overhead and underground distribution circuits, 35 miles of transmission circuits, three transmission substations and four distribution substations with an additional distribution substation under construction.

State of Michigan Average Residential Price (cents/kWh)

As reported by the U.S. Energy Information Administration



1.6 Financial Health

TCL&P has sustained financial stability over the past several years by maintaining above adequate cash reserves to cover both operating and capital expenses. The 2013-14 fiscal year the utility ended with net income of \$4M. This was partially attributed to excess power supply sold on the market during part of the year and the Board lifting the power service cost recovery cap in October 2013.

Below is a summary of various financial and operating ratios covering revenue per kWh to financial ratios such as operating and current ratio, along with expenses per kWh, and retail customer statistical comparisons. As a municipal utility, TCL&P is best compared to the APPA's – North Central/Plains region statistics. The only exceptions are (1) TCL&P currently has no outstanding debt and (2) the current ratio is higher for TCL&P because it includes investments as current assets in TCL&P's financial statements while other utilities do not.

Traverse City Light & Power					
Report on Financial and Operating Ratios (Fiscal Years Ending June 30, 2013, 2011 and 2009)					APPA - North Central/Plains
Ratio Description	2013	2011	2009	2012 Median Values	
Revenue per KWH*					
* All Retail Customers	\$ 0.090	\$ 0.086	\$ 0.083	\$	0.086
* Residential Customers	\$ 0.096	\$ 0.097	\$ 0.094	\$	0.103
* Commercial Customers	\$ 0.099	\$ 0.094	\$ 0.092	\$	0.096
* Industrial Customers	\$ 0.076	\$ 0.070	\$ 0.068	\$	0.076
Debt to Total Assets	N/A	N/A	N/A		0.231
Operating Ratio	1.140	1.058	0.946		0.901
Current Ratio	9.58	14.37	13.28		2.80
Net income per revenue dollar	N/A	\$ 0.050	\$ 0.156	\$	0.040
Uncollectible accounts per revenue dollar	\$ 0.0009	\$ 0.0007	\$ 0.0017	\$	0.0011
Retail customers per employee	305	271	286		374
Total OM expense per KWH sold	\$ 0.097	\$ 0.083	\$ 0.070	\$	0.075
Total OM expense per retail customer	\$ 664	\$ 682	\$ 608	\$	463
Total power supply expense per kWh sold	\$ 0.073	\$ 0.059	\$ 0.049	\$	0.062
Purchased power cost per KWH	\$ 0.074	\$ 0.059	\$ 0.049	\$	0.059
Retail customers per meter reader	4,740	5,951	4,732		6,368
Distribution OM expense per retail customer	\$ 295	\$ 275	\$ 226	\$	135
Distribution expense per circuit mile	\$ 9,980	\$ 9,363	\$ 7,633	\$	7,093
Customer accounting, service and sales expense per retail customer	\$ 44	\$ 46	\$ 47	\$	54
Administrative and general expense per retail customer	\$ 81	\$ 111	\$ 94	\$	155
Energy loss percentage	N/A	3.70%	N/A		3.49%

2. Vision and Mission Statements

As part of the overall strategic planning process, a committee consisting of Board and staff members was convened to review the current vision and mission statements and brainstorm new options that may better reflect the utility today based on the ideals of the current Board and expectations of the utility's customers and residents. After much review and discussion, the following statements were adopted by the Board:

2.1 Vision Statement

“To build the long-term value of Traverse City Light & Power for the benefit of the City and its residents and all Traverse City Light & Power customers.”

2.2 Mission Statement

“The Mission of Traverse City Light & Power is to provide the Public Power benefits of safety, lower rates, high reliability, local control and exceptional customer service to the City and its residents and all Traverse City Light & Power customers.”

3. Strategic Issues

At the beginning of the strategic planning process, the Board and staff participated in focused planning sessions to identify the top priorities of the utility now and into the future. Below is a summary of the six Strategic Issues that were identified through this process. In the following pages, each will be discussed further to show how the Strategic Issues impact the utility.

- Financial Stability
- Power Supply Strategy
- System Reliability & Power Quality
- Technology
- High Quality Workforce
- Customer Satisfaction

3.1 Financial Stability

Financial stability is an important strategic issue because it is the function that allows the possibility for the goals to be achieved in every other strategic issue. It is not the sole function, but one that is necessary. Additionally, with management being financially responsible and transparent of its operations, it ensures the public's trust to continue with the strategic plan goals set forth by management and approved by the Board. The areas focused on for this strategic issue include:

- Provide transparent communications on the financial health of the organization.
- Maintain the public's trust by being accountable at all levels of management.

The Operating Strategy for Financial Stability is to:

“Maintain positive operating cash flows and adequate capital reserves to sustain the financial health of the utility.”

Five main Business Goals were identified to sustain and improve TCL&P's Financial Stability:

1. Provide transparent communications on the financial health of the organization to customers through an annual report by March 31, 2015.

Metrics will be developed to measure how the utility is operating compared to prior years. These metrics will be composed of ratios that are suggested by the utility's collaborating agencies such as American Public Power Association and Michigan Municipal Electric Association along with others utilized by municipal public power agencies. Current and historical data will be provided in an annually published report for the Board and public. Additionally, a dashboard will be developed for TCL&P's website that is similar to Governor Snyder's dashboard requirement set forth for local municipalities. Creating both of these methods of communication will provide the Board and customers information to evaluate the operations of their public power utility.

2. Enhance public engagement through quarterly performance reporting to the Board and public (on-going).

Providing the Board with easy to understand quarterly financial statements and Capital Plan and Strategic Plan progress reports will allow for educated and well informed decision making that will positively impact the future of the Utility.

3. Develop a board policy to provide guidance as to the appropriate utility contribution for city projects above the Charter required annual contribution.

This policy should provide the Board guidance on evaluating utility requested contributions to various city projects that will take into consideration cash availability, rate considerations, and the appropriateness of the contribution based on the type and extent of the request.

4. Review current workplace flows for efficiency enhancement through new developed process and procedures that will provide a proper planning environment and execution process for utility projects.

Workplace flows at times may become complacent and it is beneficial for staff to hold brainstorming sessions to develop new processes and procedures that will lead to efficiencies

within the organization. Included within the brainstorming sessions, staff will develop and implement a plan to incorporate the newly developed processes and procedures and continually monitor on an annual basis for improvement.

5. Develop and implement rate structures to promote financial stability along with energy conservation.

The purpose is to provide a simplified rate structure for ease of administration while incorporating new technologies such as AMI that allows for significant data collection for multiple benefits. Some possible benefits include energy efficiency, demand side management, distribution network management, improved data quality, and accurate billing.

3.2 Power Supply Strategy

Power Supply Strategy is an important strategic issue because it represents 75% of TCL&P's operating costs and impacts Traverse City's local economy through the utility's rate structure. With industry experts providing knowledge to the Board and staff through planned education sessions, the utility is able to make knowledgeable decisions regarding TCL&P's power supply future. Having a diverse portfolio and implementing state and Board requirements, including energy efficiency and renewable energy, allows the utility to be in regulatory compliance while not at major risk with only one fuel source. The areas focused on for this strategic issue include:

- Manage load growth through energy efficiency programs.
- Create a diversified cost-effective generation portfolio.
- Implement programs to meet state and federal requirements.

The Operating Strategy for Power Supply Strategy is to:

“Ensure sufficient power supply in a fiscally responsible manner.”

Four main Business Goals were identified to sustain and improve TCL&P's Power Supply Strategy:

- 1. Create a long-term plan designed to implement programs and/or incentives that will manage load growth aimed at reducing on-peak demand by July 31, 2015. Energy efficiency programs will be implemented to achieve the maximum energy efficiency outcomes for the dollar amounts budgeted for the benefit of all ratepayers.**

Knowing that *“the lowest cost energy is the energy that is saved,”* TCL&P will develop a plan, with assistance of an outside consultant, to optimize its energy efficiency program offerings to directly manage load growth, therefore reducing the amount of capacity needed. With on-peak energy being some of the most expensive, TCL&P will focus efforts on offering customer programs that reduce or shift on-peak demand to off-peak.

- 2. Implement recommendations from the IRP report.**

The IRP will be updated with the latest actual information and review and update recommendations for power supply purchases going forward. The utility will continue to work through the Michigan Public Power Agency to strategically structure purchases to allow for flexibility while insulating customers from the volatile power market.

- 3. Investigate generation opportunities that complement the power supply mix.**

In combination with the state's new energy plan and expected increase in renewable energy standards, the utility will work with the Michigan Public Power Agency in evaluating future power supply agreements that provide stability in rates, while diversifying the power supply portfolio of the utility.

- 4. Develop a plan for meeting state guidelines on the new Energy Plan – 2015.**

By the end of the calendar year it should become clear what the state's energy plan is for the future. It is anticipated that the renewable energy standard will be increased. The utility will position itself to meet the requirements within the mandated timeframe(s). Staff will prepare a compliance plan as a guide to future energy purchases.

3.3 System Reliability & Power Quality

System reliability is the utility's plan to maintain and improve its electrical infrastructure system which consists of:

- Three transmission substations.
- Approximately thirty-five miles of transmission lines.
- Four, soon to be five, distribution substations.
- Two hundred miles of overhead distribution lines.
- One hundred and fifty miles of underground distribution lines.
- Seven thousand poles.
- Two thousand transformers.

This plan will help the utility analyze and select system improvement projects based on a rating system of several criteria to increase the utility's reliability. TCL&P will be working closely with other city departments, utilities, and customers in order to maximize the effect of the project with joint construction efforts. The areas focused on for this strategic issue include:

- Enhance and develop new system maintenance programs.
- Define and implement system improvement strategies.
- Improve communication processes with customers, other utilities and city departments.

The Operating Strategy for System Reliability is to:

“Take a proactive approach to maintain a high level of system reliability in a cost effective manner.”

Four main Business Goals were identified to enhance TCL&P's System Reliability & Power Quality throughout the electrical system:

1. Annually review, enhance and develop system maintenance programs ensuring Average Service Availability Index (“ASAI”) remains above 99.970%.

ASAI is the ratio of the total number of customer hours that service was available during a given time period to the total customer hours demanded (in 2014 it was 99.989%). In 2013, TCL&P completed a circuit rehabilitation program on circuit BW-22 where crews performed maintenance including partial rebuilds by replacing equipment, replacing wire, and adding fusing across the entire circuit. TCL&P plans to continue with this circuit rehabilitation in 2015 with circuit BW-31. TCL&P will also implement inspection programs throughout the system from poles to pad mount cabinets. This data will be used as criteria within the rating system to determine which areas are in most need of maintenance.

2. Develop a rating system to prioritize capital system improvements, to be updated annually.

This system will be utilized annually in the utility's capital improvements project planning process. The system will help prioritize projects over the next six years to increase system reliability and power quality to TCL&P customers.

3. Coordinate construction projects between TCL&P, other city departments, and other utilities.

TCL&P will work with City departments through the City's annual capital improvements process in coordinating City and TCL&P capital projects. This coordination will create efficiencies and less inconvenience to ratepayers through the construction process. TCL&P will also work with other area utilities such as cable and telephone to coordinate projects. This is especially important when it comes to undergrounding as available right-of-way is limited in some areas. It is a priority of TCL&P to maintain communications with affected customer through neighborhood meetings, direct mailers or door hangers regarding upcoming projects.

4. Formalize written switching and tagging procedures as recommended by Hometown Connections.

Switching and tagging procedures are a written set of instructions used to de-energize, energize or transfer load between equipment and or substations. Following these written instructions minimizes the risk of unnecessary outages, damage to equipment and helps ensure the safety of employees involved. Formalizing these procedures will ensure completeness and uniformity in the preparation of switching orders as well as the actual switching and tagging conducted in the field.

3.4 Technology

Technology plays a valuable role within all strategic areas and is at the forefront of the electric utility. In recent years, technical innovation has become a leading factor in modernizing the face of the electric utility by creating efficiencies within all aspects of the business. Therefore, it is necessary to embrace technology as a strategic issue. The areas focused on for this strategic issue include:

- Ensuring security for the integrity of the utility.
- Implementing energy efficiency technologies.
- Maximizing operational efficiencies.
- Enhancing communications.
- Keeping abreast of future technology opportunities.

The Operating Strategy for Technology is to:

“Embrace technologies for the benefit of the customers and community.”

Nine main Business Goals were identified to sustain and improve TCL&P’s Technical efficiencies:

1. Enhance video security monitoring at TCL&P’s facilities.

TCL&P will install video monitoring systems at several of its substations and other facilities and has identified several benefits. Remotely monitoring substation access provides increased safety benefits for the crews that need to work in these potentially hazardous locations. It also will provide enhanced security to TCL&P’s primary assets by being able to monitor the locations 24/7.

2. Implement a new work order management system.

TCL&P will implement a new web-based work order management system to update or replace its current work order management system. Implementing a system that crews can utilize in the field will increase efficiencies by allowing for instantaneous data access and updates. This will provide better metrics for improved efficiencies in project planning, reporting, billing and crew management.

3. Install and implement an Integrated Voice Response (IVR) system for outage management.

High telephone call volumes are not uncommon during power outages. Implementing an IVR system is a great way to prevent customers from receiving a busy signal during these periods. By bridging the IVR system with the Outage Management System (OMS) TCL&P will be able to provide efficient and accurate information to its customers through various channels regarding the status of the outage. An example would be texting customer information on an outage, or receiving an outage from a customer via text.

4. Fully implement MilSoft Outage Management and Engineering Analysis Program.

The MilSoft Solutions system is currently not being used to its full potential. The completion of the electric system model and system mapping information will help to provide TCL&P maximized benefits and efficiencies to the electric utility.

5. Update the utility's Supervisory Control and Data Acquisition (SCADA) System to current technology.

The new SCADA systems are designed from SQL database and web-based deployment and are much more convertible than the existing system TCL&P has today. Integrating the current SCADA technology ensures that as system updates and advances in functionality are needed TCL&P will be able to accept those updates seamlessly.

6. Complete a study analyzing implementation reasons for the Advanced Metering Infrastructure (AMI) Pilot.

In future years, TCL&P is looking to deploy an AMI network. The first phase is a pilot rollout to a small select area to gain metrics in order to make adjustments for a larger rollout. There are many different reasons and benefits that a utility would look to gain in doing an AMI project. Therefore, prior to the pilot, staff felt it necessary to complete a study to analyze the reasons in particular that TCL&P would be looking to benefit from this project.

7. Safeguard the utility from cyber threats to stay current with industry standards (on-going).

The cyber security threat environment is one that is constantly changing and evolving rapidly. The Federal Energy Regulatory Commission (FERC) and National Electric Reliability Commission (NERC) have guidelines and standards to follow for cyber threats. By following these guidelines TCL&P will maintain an electric system that is highly reliable against cyber intrusions that could affect TCL&P customers. On the business side, examples of cyber threats include data theft, denial of service attacks, website defacement and customer information disclosure or privacy breaches. On the operations side, cyber threats could target the generation and delivery of power. The greatest threat to electricity delivery is a sophisticated and coordinated cyber-physical attack on the operations side aimed at causing regional power outages. TCL&P will continue to adapt and follow guidelines provided by NERC and FERC to ensure system reliability.

8. Create emergency technology back-up procedures.

Electric utilities operate now much as they did a century ago, but the environment in which they operate is changing radically, resulting in a shift of emerging technologies. With the deployment of these key technologies, technical staff needs to have adequate coverage to sustain the utility's operations around the clock. Staff has recognized that we fall short in this area and will create a procedure to utilize in the event of a coverage limitation.

9. Research and implement technology that will effectively communicate pertinent utility information with customers.

The utility will focus on additional ways that utilizing technology will provide a more effective means of getting information out to customers. This will range from placing the Outage Management System map on the TCL&P website to mass texting capabilities that notify customers regarding outages, weather and utility payment scams.

3.5 High Quality Workforce

TCL&P recognizes the value and importance of employees who are an essential component to the successful operations of the utility. Promoting and encouraging a high quality workforce needs to continue and strengthen in order to ensure that TCL&P provides excellent service to its customers and community. The areas focused on for this strategic issue include:

- Maintain a safe work environment through collaborative efforts between management and the union.
- Foster a work environment that encourages professional development for the betterment of the organization.
- Ensure the organization's efforts attract and retain qualified candidates.
- Communication throughout the organization that will allow for transparency, accountability, trust and respect amongst management and union employees.

The Operating Strategy for High Quality Workforce is to:

“Create and maintain an organizational culture that empowers and educates employees with the end result being a safe, motivated, and highly skilled workforce.”

Five main Business Goals were identified to sustain and improve the quality of TCL&P's workforce:

- 1. Continue engaging in efforts towards employee professional development and performance management in order to ensure that the workforce has the knowledge, skills and abilities to evolve in their positions and are accountable in the work being performed (on-going).**
The utility will continue to foster a work environment that encourages professional development, but at the same time stresses accountability in work performance. This will involve formalizing a process to transfer knowledge from the seasoned employees while working with the union on a succession plan that allows for successful internal growth. Included within this framework will be the development of an employee evaluation method that monitors internal growth and measures performance in order to ensure that the utility is utilizing our human capital efficiently.
- 2. Align work tasks, processes, and knowledge and skill requirements with both current and future needs of the organization.**
The operations of the utility have and will continue to evolve in the future. It is imperative that the duties, knowledge and skill level requirements of each position match the needs of the utility. Therefore, a complete review of all positions will be performed.
- 3. Enhance employee engagement on issues facing the utility through communication efforts that are transparent and effective.**
TCL&P will continue to focus on effective communication that is successful in distributing information internally throughout the organization. Employee participation and engagement in this process is imperative in order to minimize the spread of misinformation and increase overall

employee morale. Additional avenues of communication such as increasing the use of technology will be utilized.

4. Modernize recruitment strategies, selection techniques and retention efforts to ensure that the utility is successful in attracting and retaining qualified candidates.

As an employer of choice in the region, TCL&P will look at ways to increase our effectiveness in recruiting, selecting and retaining candidates that have the necessary skills and competencies needed to perform work within the electric utility industry.

5. Promote employer and worker awareness of, commitment to, and involvement with safety to effect positive change in the workplace culture through cooperative efforts and strong leadership.

The Safety Development Plan drafted and finalized in 2014 was the first step in providing the framework for areas that the utility wants to focus its efforts on developing and implementing going forward. Staff will continue to use the actions and objectives identified in this Plan as a guideline to continue to foster a culture of safety.

3.6 Customer Satisfaction

Although Customer Satisfaction is affected by all of the previous Strategic Issues identified in this Plan, there are many ways for the utility to encourage, track, and modify the way services are provided to customers that will assist in striving for a high level of customer satisfaction. The areas focused on for this strategic issue include:

- Maintaining a high level of customer service.
- Improving current and developing new communication avenues with customers.
- Providing a variety of value-added programs to customers.
- Strengthening partnerships for the betterment of the community.
- Ensuring lowest rates possible while meeting customer expectations.

The Operating Strategy for Customer Satisfaction is to:

“Sustain and improve the utility’s goodwill to all customers by going the extra mile.”

Five main Business Goals were identified to sustain and improve TCL&P Customer Satisfaction levels:

1. Maintain a customer satisfaction rating above 95%.

The utility will continue to enhance efforts to ensure customers are satisfied with the services provided by the utility. Measurement of our efforts will be done using a variety of methods that may include extensive community wide surveys done every three to five years, automated phone surveys following customer service representative interaction and quick outage surveys done on a quarterly basis. Additionally, TCL&P will provide training opportunities for employees on effective customer service practices.

2. Maintain customer rates lower than other utilities in the area.

It has been communicated to staff by the Board that it is important to keep rates low when compared to other utilities within the local area as this is an important benefit of being a public power utility. TCL&P will measure the utility’s success in this area by completing an annual rate survey of utilities throughout the state, and by completing a cost of service study no less than every five years to be used for a rate analysis. If this goal is not achievable or financially feasible, an explanation will be provided to the board and the operations or the goal will be revised.

3. Enhance the utilities communications efforts and community involvement by implementing the Communications Strategy.

Successfully communicating with all customers is crucial in achieving customer satisfaction. To accomplish this, TCL&P will implement the communication channels outlined in the Communications Strategy. This will not only include the traditional methods but also will incorporate community outreach efforts like school demonstrations and utility open houses.

4. Continually analyze new and current value-added programs to meet or exceed the customer expectations of its utility.

Providing electrical related program opportunities to customers is another way the utility can build upon overall customer satisfaction. With the electrical industry evolving, the number of new program opportunities could be endless, but evaluating which programs will be viewed as beneficial will be essential to the overall program's success. TCL&P staff will continually work to add new and evaluate current programs to make sure they are meeting the needs of the TCL&P customers by using industry specific resources such as the American Public Power Association, Michigan Public Power Agency and attending relevant conferences.

5. Evaluate and implement services focused on assisting the unique needs of the utility's key account customers by December 31, 2015.

Key account customers represent some of the utility's largest consumers. Although all customers are of value to TCL&P, the distinct needs of this customer group require additional attention from staff due to the level of electrical consumption and the economic impact of their business on the greater community. Specific programs will be analyzed and implemented to assist these customers to successfully do business in the Traverse City region.

4. Conclusion

The fundamental purpose of TCL&P's strategic planning process was to identify, consider and act on the internal and external issues that are expected to have the greatest influence on TCL&P's ability to successfully achieve its vision and mission in the future. Upon board approval of the Strategic Plan, the real work will begin. Implementation!



Staff will provide quarterly updates to the Board on its progress towards implementing and/or achieving the identified goals. As the utility moves forward, this Plan will be used as a guide for future strategic planning.

Annually, the Board and staff, through the budgeting process, will review and update the Plan as necessary to reflect changing Board and customer expectations of its public power utility. The utility must stay in-tune with the evolving electric industry, economic conditions, and customer expectations. The strategic issues of today including financial stability, power supply strategy, system reliability and power quality, technology, high quality workforce, and customer satisfaction may not be the strategic issues of the utility in the future. It is the intent of TCL&P staff and its Board that this Plan be modified from time-to-time to remain relevant and useful in managing the utility.

TCL&P has a very long and proud history of serving the electrical needs of the Traverse City community. The utility looks forward to implementation of this Plan for the betterment of the City of Traverse City, its residents and all TCL&P customers.

