

**A REGULAR MEETING**

Of The

**TRAVERSE CITY LIGHT AND POWER BOARD**

Will Be Held On

**Tuesday, September 10, 2019**

At

**5:15 PM**

In The

**COMMISSION CHAMBERS**

(2ND floor, Governmental Center)

400 Boardman Avenue

Traverse City Light and Power will provide necessary reasonable auxiliary aids and services, such as signers for the hearing impaired and audio tapes of printed materials being considered at the meeting, to individuals with disabilities at the meeting/hearing upon notice to Traverse City Light & Power. Individuals with disabilities requiring auxiliary aids or services should contact the Light and Power Department by writing or calling the following.

Jennifer St. Amour  
Administrative Assistant  
1131 Hastings Street  
Traverse City, MI 49686  
(231) 932-4543

Traverse City Light and Power  
1131 Hastings Street  
Traverse City, MI 49686  
231-922-4940

Posting Date:  
9/6/2019  
3:00 P.M.

**AGENDA**

	Page
<b>Pledge of Allegiance</b>	
<b>1. Roll Call</b>	
<b>2. Disclosure of Recusal</b>	
<b>3. Consent Calendar</b>	
<i>The purpose of the consent calendar is to expedite business by grouping non-controversial items together to be dealt with by one Board motion without discussion. Any member of the Board, staff or the public may ask that any item on the consent calendar be removed therefrom and placed elsewhere on the agenda for full discussion. Such requests will be automatically respected. If an item is not removed from the consent calendar, the action noted in parentheses on the agenda is approved by a single Board action adopting the consent calendar</i>	
a. Approval of Agenda	
b. Consideration of approving minutes of the Regular Meeting of August 13, 2019. <a href="#">MINUTES - Regular Meeting 8.13.19</a>	4 - 6
c. Consideration of rescinding the Transformer, Capacitor, and Other Electrical Equipment Spill Cleanup Plan. (Dixon) <a href="#">TCLP-19-048 - Pdf</a>	7 - 9
d. Consideration of approving an agreement for planned generator maintenance. (Hardy) <a href="#">TCLP-19-049 - Pdf</a>	10 - 15
<b>4. Unfinished Business</b>	
<b>5. New Business</b>	
a. Consideration of scheduling a Public Hearing at the October 2019 regular meeting regarding rate adjustments to be effective November 1, 2019. (Myers-Beman) <a href="#">TCLP-19-047 - Pdf</a>	16 - 30
<b>6. Reports and Communications</b>	
a. From Legal.	
b. From Staff.	
1. Presentation by MERS on the actuarial report. (Arends/Myers-Beman) <a href="#">09102019 MERS Presentation</a>	31 - 45
2. FTTP Update. (Menhart - verbal)	
3. Presentation on tree ordinance. (Arends/Soyring)	46 - 109

[TCLP-19-050 - Pdf](#)

4. Seedling Giveaway. (Schroeder - verbal)
  5. Discussion of October Board meeting date. (Arends - verbal)
- c. From Board.

**7. Public Comment**

- a. General Public Comment

/js

**TRAVERSE CITY  
LIGHT AND POWER BOARD**

Minutes of Regular Meeting  
Held at 5:15 p.m., Commission Chambers, Governmental Center  
Tuesday, August 13, 2019

**Board Members -**

Present: John Taylor, Elysha Davila, Ross Hammersley, Pat McGuire, Amy Shamroe, Tim Werner, Paul Heiberger

Absent:

**Ex Officio Member -**

Present: Marty Colburn, City Manager

**Others:** Tim Arends, W. Peter Doren (General Counsel), Daren Dixon, Scott Menhart, Karla Myers-Beman, Kelli Schroeder, Jacob Hardy, Jennifer St. Amour

**Item 2 on the Agenda being Disclosure of Recusal - None**

**Item 3 on the Agenda being Consent Calendar**

Moved by McGuire, seconded by Shamroe, that the following actions, as recommended on the Consent Calendar portion of the Agenda, be approved:

- a. Approved the Agenda.
- b. Approved the minutes of the Regular Meeting of July 9, 2019.
- c. Approved the amended Energy Services and Equipment Sales Policy as presented with an immediate effective date.
- d. Approved a purchase order in the total amount of \$48,749.88, more or less, to procure electric meters to fulfill ongoing TCL&P business operations.
- e. Approved a \$20,000 increase in the amount of the existing tree trimming contract with Penn Line Services, Inc. dated October 7, 2016 for a new total amount of \$583,409.60.

CARRIED unanimously.

**Items Removed from the Consent Calendar**

None.

**Item 4 on the Agenda being Unfinished Business**

- a. Consideration of approval of the Resolution of Intent to Establish Energy Financing, Work Plan Report titled *Report-On-Bill Financing Program* in accordance with Public Act 408, proposed ordinance and submission to the City Commission for approval.

The following individuals addressed the Board:

Tim Arends, Executive Director

Moved by Hammersley, seconded by Shamroe, that the Light & Power Board approves forwarding the Resolution of Intent to establish clean energy financing and the accompanying report – On Bill Financing Program in accordance with Public Act 408, along with the proposed ordinance, to the City Commission for its consideration of approval.

CARRIED unanimously.

**Item 5 on the Agenda being New Business**

- a. None.

**Item 6 on the Agenda being Reports and Communications**

- a. From Legal Counsel.
- b. From Staff.
  1. Presentation on Renewable Energy Goals and Capacity Planning.

The following individuals addressed the Board:

Tim Arends, Executive Director  
Bob Dyer, RTD Consulting, LLC

Marty Colburn left the meeting at 5:45pm.

2. Presentation by Michigan Public Power Agency.

The following individuals addressed the Board:

Tim Arends, Executive Director  
Patrick Bowland, CEO & General Manager, MPPA  
Bob Dyer, RTD Consulting, LLC

3. Presentation by Michigan Municipal Electric Association.

The following individuals addressed the Board:

Tim Arends, Executive Director  
Katie Abraham, Executive Director, MMEA

4. Capital Plan Update.

The following individuals addressed the Board:

Tim Arends, Executive Director  
Karla Myers-Beman, Controller

5. HL-22 Distribution Circuit Rebuild and Critical & Large Customer #4 Project.

The following individuals addressed the Board:

Karla Myers-Beman, Controller

6. Update on electronic board packets.

The following individuals addressed the Board:

Scott Menhart, Chief Information Officer

7. Update on Fiber to the Premise.

The following individuals addressed the Board:

Scott Menhart, Chief Information Officer

8. Update on outage survey.

The following individuals addressed the Board:

Kelli Schroeder, Manager of Human Resources & Communications

9. Audit engagement letter and audit questionnaire.

The following individuals addressed the Board:

Karla Myers-Beman, Controller

- c. From Board

Chairman Taylor reported on the proposed tree ordinance and polled the Board regarding their interest in receiving additional information on the subject at a future meeting. Board consensus was affirmative.

#### **Item 7 on the Agenda being Public Comment**

- a. General

The following individuals from the Public addressed the Board:

None.

There being no objection, Chairman Taylor declared the meeting adjourned at 7:36 p.m.

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Tim Arends, Secretary  
LIGHT AND POWER BOARD

**To:** Traverse City Light and Power Board  
**From:** Daren Dixon - Operations Manager  
**Meeting:** Regular Board - Sep 10 2019  
**Subject:** Transformer, Capacitor, and Other Electrical Equipment Spill Cleanup Plan

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On May 11, 1993 the Board adopted the *Transformer, Capacitor, and Other Electrical Equipment Spill Cleanup Plan* in order to provide instructions for field crews and staff on what to do in the event oil spills from electrical equipment. In order to follow federal and state environmental laws, staff created the *Spill Prevention, Control, and Countermeasures (SPCC)/Pollution Incident Prevention (PIP) Plan* in 2016 which identifies all facets of storage, handling, inspections, spill cleanup, and disposal related to oil filled equipment. The plan provides the current step by step instructions to employees and staff on spill cleanup procedures. The SPCC/PIP was also modified and updated this year as part of a required three year review and is to be trained annually going forward to all employees.

Staff recommends that the Board rescind the existing *Transformer, Capacitor, and Other Electrical Equipment Spill Cleanup Plan*, as it is not current; additionally, the SPCC/PIP plan is a requirement of environmental law, not a policy, and is required to be kept current.

This item is appearing on the Consent Calendar as it is deemed a non-controversial item by staff. Approval of this item on the Consent Calendar means you agree with staff's recommendation. If any member of the Board or the public wishes to discuss this matter, other than clarifying questions, it should be placed on the "items removed from the consent calendar" portion of the agenda for full discussion. If after the Board discussion you agree with staff's recommendation the following motion would be appropriate.

**MOVED BY \_\_\_\_\_, SECONDED BY \_\_\_\_\_, THAT THE LIGHT & POWER BOARD RESCIND THE 'TRANSFORMER, CAPACITOR, AND OTHER ELECTRICAL SPILL CLEANUP PLAN' POLICY WITH AN IMMEDIATE EFFECTIVE DATE.**

**TRANSFORMER, CAPACITOR, AND OTHER ELECTRICAL  
EQUIPMENT SPILL CLEANUP PLAN**

Upon notification from any source that a transformer, capacitor, or any other electrical equipment is, or appears to be, leaking fluids, the employee that is notified should take the following actions in the exact order as shown:

- I. Call the Distribution Superintendent, Chauncey (“Dutch”) Stevens at work (922-4942), or home (941-0276), and provide the following information:
  - A. Exact location of the spill.
  - B. Brief description of the severity. In Dutch’s absence, contact his assistant, Glen Dine, through the Power Plant Operator.
  
- II The Distribution Superintendent will:
  - A. Call TSCA at (800)-424-8802. If no response, call TSCA National Response Center, Region V (312) 353-2318—if the spill is exposed to people, food or feed, animals, surface water, or any other health-related exposure.
  
  - A. Expedite a crew to the spill site to dike or dam the spill in order to control and contain it to the smallest area possible, and to avoid any further exposure to the environment.
    1. **Small Spills** -- Protective covering to be worn by the cleanup crew will be non-porous gloves, heavy overalls, non-porous boots, safety glasses with side shields or chemical safety goggles.
    2. **Large Spills** -- Non-POROUS gloves, heavy coveralls covered by a non-porous apron or entire suit of non-porous material, non-porous boots, chemical safety goggles or face mask, safety helmet.
  
  - A. Cleanup
    1. **Small Spills** (less than 1 lb. of fluid) -- Cleanup must be done as soon as possible, but within 48 hours of the initial notification. Sorbents will be used to absorb all possible small spills’ leak fluid. Sorbents will be immediately placed into a proper, leak-proof steel



container of adequate size. All dirt, stone, grass, etc., that has been exposed to fluids will also be placed into a proper steel drum. If the spill is in a confined area, respiratory, protective covering should be worn. All containers containing PCB items should be properly labeled and immediately transported to the temporary storage building located near the southwest corner of the Light and Power Service Center Building at 2279 S. Airport Rd., West.

2. **Large Spills** (over 1 lb. of fluid) -- Cleanup must be done as soon as possible, but within 48 hours of the initial notification. The same procedures should be followed as for a small spill. However, based on the severity of the spill, the Distribution Superintendent may also call for the services of an outside contractor qualified to perform such services.

D. Temporary Storage

Upon returning to the temporary storage building at the Light and Power Service Center, any clothing or protective coverings worn during cleanup, that have absorbed PCB fluids, should be placed into a steel, leak-proof container, also. All containers containing PCB items should be placed in the temporary storage building and a written record prepared of all PCB items involved in the cleanup.

*Charles R. Fricke*

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Charles R. Fricke  
Executive Director and Secretary  
Traverse City Light and Power Board

**To:** Traverse City Light and Power Board  
**From:** Jacob Hardy - Energy Technician  
**Meeting:** Regular Board - Sep 10 2019  
**Subject:** Hastings Service Center Generator Contract

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The utility currently contracts on an annual basis with Cummins Bridgeway Power Inc. for maintenance on the Hastings Street generator used in the event of a power outage. It was brought to staff's attention better pricing was available for a five-year maintenance agreement for a cost of \$3,031.88. Based on the utility's purchasing policy any contract exceeding one year requires board approval.

The agreement has been provided to General Counsel for review.

Staff recommends approval of the five-year contract agreement.

This item is appearing on the Consent Calendar as it is deemed a non-controversial item by staff. Approval of this item on the Consent Calendar means you agree with staff's recommendation. If any member of the Board or the public wishes to discuss this matter, other than clarifying questions, it should be placed on the "items removed from the consent calendar" portion of the agenda for full discussion. If after the Board discussion you agree with staff's recommendation the following motion would be appropriate

**MOVED BY \_\_\_\_\_, SECONDED BY \_\_\_\_\_, THAT THE BOARD APPROVES THE CONTRACT WITH CUMMINS BRIDGEWAY POWER INC. FOR PLANNED GENERATOR MAINTENANCE.**



8/8/2019

Traverse City Light & Power  
1131 Hastings  
Traverse City, MI 49684  
RE: Planned Maintenance Proposal

Dear Jacob Hardy,

Cummins Sales and Service is a premier engine and power generation systems provider committed to delivering fast and proven solutions to our customers. We are pleased to offer you a Planned Maintenance Proposal for your review and approval. Due to the critical nature of your standby power system, this Agreement was developed based on your specific needs and equipment to ensure maximum performance and reliability.

#### Benefits of Planned Maintenance

- Improves system reliability.
- Maintenance performed by certified technicians specifically trained in power generation.
- PM customers receive preferred service for unscheduled emergency repairs.
- Creation of a service record for customer equipment.
- Additional maintenance recommendations documented at that time.
- Scheduling managed by Cummins Sales and Service to ensure timely maintenance intervals.
- Eliminates administrative burden, covers equipment from multiple vendors.

Please sign, date and return the enclosed Agreement to our office along with any purchase documentation necessary so we can tend to your servicing needs. Planned Maintenance Agreements are "auto-renewed" annually prior to the end of your agreement. Should you have any questions or require additional information on this or any other subject relating to your equipment, please feel free to contact me. We look forward to the opportunity to earn your trust and business.

Sincerely,

*James Sweeney*

James Sweeney  
Planned Equipment Maintenance Territory Manager  
Office: (616) 988-8682  
Cell: (616) 485-1568  
Email: james.sweeney@cummins.com



Cummins Inc.  
 3715 Clay Avenue SW  
 Grand Rapids, MI 49548  
 Phone: (616) 538-2250  
 Fax: (616) 281-3177

**PLANNED EQUIPMENT MAINTENANCE AGREEMENT**

Customer Address	Customer Contact	Quote Information	
Traverse City Light & Power	Name: Jacob Hardy	Quote Date:	8/8/2019
1131 Hastings	Phone: 231-649-0007	Quote Expires:	10/7/2019
Traverse City, MI 49684	Cell:	Quote ID:	QT-54660
Customer #:	Fax: 231-922-4638	Quoted By:	James Sweeney
Payment Type: Pay As You Go	E-mail: jhardy@tclp.org	Quote Term:	5 Year

**Site Name: Light and Power**  
 (1131 Hastings Traverse City MI 49684)

Unit Name: J020432152	<b>Year</b>	<b>Month of 1st Service</b>	<b>Service Type</b>	<b>Qty</b>	<b>Sell Price</b>	<b>Extended Price</b>
Make: Cummins	1	January	Full Service	1	\$581.35	\$581.35
Model: DFAC						Year 1 Total:\$581.35
S/N: J020432152	2	January	Full Service	1	\$581.35	\$581.35
Size: 250kW						Year 2 Total:\$581.35
ATS Qty: 1	3	January	Full Service	1	\$601.68	\$601.68
Notes:						Year 3 Total:\$601.68
	4	January	Full Service	1	\$622.79	\$622.79
						Year 4 Total:\$622.79
	5	January	Full Service	1	\$644.71	\$644.71
						Year 5 Total:\$644.71

The following riders are included for this unit on this quote:  
 With Full Service: Coolant Analysis - CL2P (Basic), Oil Analysis - AMP (Advanced)

**Total Agreement Amount:\*** **\$3,031.88**  
*\*Quote does not include applicable taxes*



Cummins Inc.  
 3715 Clay Avenue SW  
 Grand Rapids, MI 49548  
 Phone: (616) 538-2250

**PLANNED EQUIPMENT MAINTENANCE AGREEMENT**

Customer Address	Customer Contact	Quote Information
Traverse City Light & Power 1131 Hastings Traverse City, MI 49684 Customer #: Payment Type: Pay As You Go	Name: Jacob Hardy Phone: 231-649-0007 Cell: Fax: 231-922-4638 E-mail: jhardy@tclp.org	Quote Date: 8/8/2019 Quote Expires: 10/7/2019 Quote ID: QT-54660 Quoted By: James Sweeney Quote Term: 5 Year

**Total Agreement Amount:\*** **\$3,031.88**  
*\*Quote does not include applicable taxes*

Comment:

**Total Agreement Amount Does Not Include Applicable Taxes. Please call (855) 879-6135 or Email pm.service@cummins.com for invoice total prior to sending payment.**

Planned Equipment Maintenance Agreements are designed with an automatic renewal provision. Details of this provision are listed in the "Planned Equipment Maintenance Agreement Terms and Conditions". If you do not wish to participate in the auto renew option, please check the box below to opt out.

Opt out of Automatic Renewal.

**Please return signed agreement to:**  
 Cummins Inc.  
 Attn: PEM Administration Group  
 21810 Clessie Court  
 New Hudson, MI 48165  
 Fax 248-573-1960  
 Email: pm.service@cummins.com

Seller hereby agrees to sell to Buyer, and Buyer hereby agrees to buy from Seller, the foregoing products/services upon the terms and conditions set forth in the "Planned Equipment Maintenance Agreement Terms and Conditions" attached hereto, which are hereby incorporated herein by reference.

**Customer Approval (Quote ID QT-54660)** **Cummins Inc. Approval**

Signature: \_\_\_\_\_ Signature: \_\_\_\_\_

Date: \_\_\_\_\_ Date: \_\_\_\_\_

## PLANNED MAINTENANCE AGREEMENT TERMS AND CONDITIONS

These Planned Maintenance Agreement Terms and Conditions, together with the Quote on the front side and the Scope of Services, are hereinafter referred to as this "Agreement" and shall constitute the entire agreement between the customer identified in the Quote ("Customer") and Cummins Inc. ("Cummins") and supersede any previous agreement or understanding (oral or written) between the parties with respect to the subject matter of this Agreement. In the event of any inconsistency between this Agreement and any purchase order, terms and conditions or other document produced or delivered by Customer, the terms and conditions of this Agreement shall take precedence.

**1. SCOPE OF SERVICES; PERFORMANCE OF SERVICES.** Cummins shall perform the maintenance ("Services") on the equipment identified in the Quote ("Equipment") in accordance with the schedule specified in the Quote. The Services include those services defined in the "Service Event" section of the Quote. No additional services or materials are included in this Agreement unless agreed upon by the parties in writing. Unless otherwise indicated in the Quote, Cummins will provide the labor and tools necessary to perform the Services and shall keep Customer's property free from accumulation of waste materials caused by Cummins' operations. Either party may terminate this Agreement with or without cause by providing thirty (30) days written notice to the other.

**2. CUSTOMER OBLIGATIONS.** Customer shall provide Cummins safe access to Customer's site and arrange for all related services and utilities necessary for Cummins to perform the Services. During the performance of the Services, Customer shall fully and completely secure all or any part of any facility where the Equipment is located to remove and mitigate any and all safety issues and risks, including but not limited to facility occupants, customers, invitees, or any third party and or property damage or work interruption arising out of the Services. Customer shall make all necessary arrangement to address and mitigate the consequences of any electrical service interruption which might occur during the Services. **CUSTOMER IS RESPONSIBLE FOR OPERATING AND MAINTAINING THE EQUIPMENT IN ACCORDANCE WITH THE OWNER'S MANUAL FOR THE EQUIPMENT.**

**3. PAYMENT TERMS.** Unless otherwise agreed to by the parties in writing and subject to credit approval by Cummins, payments are due thirty (30) days from the date of the invoice. If Customer does not have approved credit with Cummins, as solely determined by Cummins, payments are due in advance or at the time of supply of the Services. If payment is not received when due, in addition to any rights Cummins may have at law, Cummins may charge Customer eighteen percent (18%) interest annually on late payments, or the maximum amount allowed by law. Customer agrees to pay all Cummins' costs and expenses (including all reasonable attorneys' fees) related to Cummins' enforcement and collection of unpaid invoices, or any other enforcement of this Agreement by Cummins. Unless otherwise stated, the Quote excludes all applicable local, state, or federal sales and/or use or similar taxes which Cummins is required by applicable laws to collect from Customer and shall be stated on the invoice.

**4. DELAYS.** Any performance dates indicated in this Agreement are estimated and not guaranteed. Cummins shall not be liable for any delays in performance however occasioned, including any that result directly or indirectly from acts of Customer or causes beyond Cummins' control, including but not limited to acts of God, accidents, fire, explosions, flood, unusual weather conditions, acts of government authority, or labor disputes.

**5. WARRANTY.** Cummins shall perform the Services in a reasonable and workmanlike manner. Parts and components supplied under this Agreement are governed by the express written manufacturer's limited warranty. No other warranty for parts or components is provided under this Agreement. All Services shall be free from defects in workmanship for a period of ninety (90) days after completion of Services. In the event of a warrantable defect in workmanship of Services supplied under this Agreement ("Warrantable Defect"), Cummins' obligation shall be solely limited to correcting the Warrantable Defect. Cummins shall correct the Warrantable Defect where (i) such Warrantable Defect becomes apparent to Customer during the warranty period; (ii) Cummins receives written notice of any Warrantable Defect within thirty (30) days following discovery by Customer; and (iii) Cummins has determined that there is a Warrantable Defect. Warrantable Defects remedied under this provision shall be subject to the remaining warranty period of the original warranty of the Services. New parts supplied during the remedy of Warrantable Defects are warranted for the balance of the warranty period still available from the original warranty of such parts. The remedies set forth in this Section 5 shall not be deemed to have failed of their essential purpose so long as Cummins is willing to correct defective Services or refund the purchase price therefor.

### **6. LIMITATIONS OF WARRANTIES AND LIABILITY.**

**THE REMEDIES PROVIDED IN THE LIMITED WARRANTY AND THIS AGREEMENT ARE THE SOLE AND EXCLUSIVE WARRANTIES AND REMEDIES PROVIDED BY CUMMINS TO THE CUSTOMER UNDER THIS AGREEMENT. EXCEPT AS SET OUT IN THE WARRANTY AND THIS AGREEMENT, AND TO THE EXTENT PERMITTED BY LAW, CUMMINS EXPRESSLY DISCLAIMS ALL OTHER REPRESENTATIONS, WARRANTIES, ENDORSEMENTS, AND CONDITIONS OF ANY KIND, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY STATUTORY OR COMMON LAW IMPLIED REPRESENTATIONS, WARRANTIES AND CONDITIONS OF FITNESS FOR A PURPOSE OR MERCHANTABILITY.**

**NOTWITHSTANDING ANY OTHER TERM OF THIS AGREEMENT, IN NO EVENT SHALL CUMMINS, ITS OFFICERS, DIRECTORS, EMPLOYEES, OR AGENTS BE LIABLE TO CUSTOMER OR ANY THIRD PARTY FOR ANY INDIRECT, INCIDENTAL, SPECIAL, PUNITIVE, OR CONSEQUENTIAL DAMAGES OF ANY KIND (INCLUDING WITHOUT LIMITATION DOWNTIME, LOSS OF PROFIT OR REVENUE, LOSS OF DATA, LOSS OF OPPORTUNITY, DAMAGE TO GOODWILL, AND DAMAGES CAUSED BY DELAYS) IN ANY WAY RELATED TO OR ARISING FROM CUMMINS' SUPPLY OF PARTS OR SERVICES UNDER THIS AGREEMENT. IN NO EVENT SHALL CUMMINS' LIABILITY TO CUSTOMER OR ANY THIRD PARTY CLAIMING DIRECTLY THROUGH CUSTOMER OR ON CUSTOMER'S BEHALF UNDER THIS AGREEMENT EXCEED THE TOTAL COST OF PARTS AND SERVICES SUPPLIED BY CUMMINS UNDER THIS AGREEMENT. BY ACCEPTANCE OF THIS AGREEMENT, CUSTOMER ACKNOWLEDGES CUSTOMER'S SOLE REMEDY AGAINST CUMMINS FOR ANY LOSS SHALL BE THE REMEDY PROVIDED HEREIN.**

**7. INDEMNITY.** Customer shall indemnify, defend and hold harmless Cummins from and against any and all claims, actions, costs, expenses, damages and liabilities, including reasonable attorneys' fees, brought against or incurred by Cummins related to or arising out of this Agreement or the Services supplied under this Agreement (collectively, the "Claims"), where such Claims were caused or contributed to by, in whole or in part, the acts, omissions, fault or negligence of the Customer. Customer shall present any Claims covered by this indemnity to its insurance carrier unless Cummins directs that the defense will be handled by Cummins' legal counsel at Customer's expense.

**8. CONFIDENTIALITY.** Each party shall keep confidential any information received from the other that is not generally known to the public and at the time of disclosure, would reasonably be understood by the receiving party to be proprietary or confidential, whether disclosed in oral, written, visual, electronic or other form, and which the receiving party (or agents) learns in connection with this Agreement including, but not limited to: (a) business plans, strategies, sales, projects and analyses; (b) financial information, pricing, and fee structures; (c) business processes, methods and models; (d) employee and supplier information; (e) specifications; and (f) the terms and conditions of this Agreement. Each party shall take necessary steps to ensure compliance with this provision by its employees and agents.

**9. GOVERNING LAW.** This Agreement and all matters arising hereunder shall be governed by and construed in accordance with the laws of the State of Indiana without giving effect to any choice or conflict of law provision. The parties agree that the courts of the State of Indiana shall have exclusive jurisdiction to settle any dispute or claim arising in connection with this Agreement.

**10. INSURANCE.** Upon Customer's request, Cummins will provide to Customer a Certificate of Insurance evidencing Cummins' relevant insurance coverage.

**11. ASSIGNMENT.** This Agreement shall be binding on the parties and their successors and assigns. Customer shall not assign this Agreement without the prior written consent of Cummins.

**12. INTELLECTUAL PROPERTY.** Any intellectual property rights created by either party, whether independently or jointly, in the course of the performance of this Agreement or otherwise related to Cummins pre-existing intellectual property or subject matter related thereto, shall be Cummins' property. Customer agrees to assign, and does hereby assign, all right, title, and interest to such intellectual property to Cummins. Any Cummins pre-existing intellectual property shall remain Cummins' property. Nothing in this Agreement shall be deemed to have given Customer a licence or any other rights to use any of the intellectual property rights of Cummins.

**13. MISCELLANEOUS.** Cummins shall be an independent contractor with respect to the Services performed under this Agreement. All notices under this Agreement shall be in writing and be delivered personally, mailed via first class certified or registered mail, or sent by a nationally recognized express courier service to the addresses set forth in the Quote. No amendment of this Agreement shall be valid unless it is writing and signed by the parties hereto. Failure of either party to require performance by the other party of any provision hereof shall in no way affect the right to require such performance at any time thereafter, nor shall the waiver by a party of a breach of any of the provisions hereof constitute a waiver of any succeeding breach. Any provision of this Agreement that is invalid or unenforceable shall not affect the validity or enforceability of the remaining terms hereof.

**14. ON-CALL SERVICES.** Upon Customer's request, Cummins shall provide on-call services (repair, emergency work or other) on the Equipment ("On-Call Services"). Any On-Call Services shall be invoiced to the Customer at the Cummins current hour rate (including traveling) and shall be governed by the terms and conditions of this Agreement.

# Power Generation System Planned Equipment Maintenance

## **INSPECTION** (MONTHLY, QUARTERLY, OR ONE-TIME PER YEAR)

### Battery & Battery Charger System

- Check battery charger functions
- Cable connections, termination cleanliness and security
- Check electrolyte level, vent caps of all cells in the starting batteries
- Battery Conductance Test

### Fuel System

- Inspect main tank/day tank fuel level
- Inspect day tank controls and pumps. Test operate day tank controls (where available)
- Inspect all fuel hoses, clamps, pipes, components, and fittings
- Inspect governor linkage
- Visually inspect rupture/containment basin
- Water in Fuel Test - Sub-base, day tanks
- Optional - fuel sample for laboratory analysis\*

### Engine Cooling System

- Inspect all hoses and clamps for leaks, coolant level and condition
- Inspect radiator cap and filler neck condition
- Inspect drive belts, observe alignment and deflection
- Observe coolant heater operations
- Utilize DCA test strip to record coolant properties
- Inspect radiator surfaces, shrouds, and barriers for obstruction
- Visually inspect low temperature after cooler coolant
- Optional –coolant sampling\*

### Engine & Lubrication System

- Inspect lubrication system (visually check oil level)
- Inspect crankcase ventilation system
- Inspect spark ignited ignition system

### Intake/Exhaust System

- Inspect air cleaner element and entire intake system
- Inspect exhaust system and rain cap
- Inspect louver operations

### Generator Controls & Power Connections

- Visually inspect all engine mounted wiring, senders, and devices
- Visually inspect all control mounted components and wiring
- Lamp test all lights and indicators
- Visually inspect breaker and power connections
- Manually operate generator main breaker(s) open and closed\*

\*NOTE: Will not exercise breakers or contactors on a paralleling device.

### Generator Operations

- Start and observe generator and equipment operations
- Verify engine and generator safeties for proper operation
- System test with or without load

### Automatic Transfer Switch

(Paralleling Switchgear, Bypass Switchgear, Manual Transfer Switches)

- Visually inspect all power and control wiring
- Visually inspect switch mechanism and enclosure
- Visually inspect controls and time delays settings
- Verify function of exercise clock

## **FULL SERVICE** (INCLUDES INSPECTION)

### Operational & Functional Review of Generator Critical Components

- Inspect engine cooling fan & fan drives for excessive wear or shaft wobble
- Check all pulleys, belt tensioners, slack adjusters & idler pulleys for travel, wear & overall condition
- Inspect/lubricate drive bearings, gear or belt drives, lovejoy and other shaft connecting hardware

### Lubrication Oil and Filtration Service

- Change engine lubrication oil
- Change primary lubrication and bypass filters
- Change fuel filters
- Post lube service operation of genset (unloaded) at rated temperature
- Optional - oil sample for laboratory analysis\*

#### **\*Additional Charge**

Any additional repairs, parts or services which are required will be brought to the attention of the owner. Repairs will only be made after proper authorization from the owner is given to Cummins Sales and Service. Any additional repairs, maintenance or service performed by Cummins Sales and Service for a Planned Equipment Maintenance Agreement holder will be at current Cummins Sales and Service labor rates.

**To:** Traverse City Light and Power Board  
**From:** Karla Myers Beman - Controller  
**Meeting:** Regular Board - Sep 10 2019  
**Subject:** Rate adjustments effective November 1, 2019

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Staff is continuing with the five-year rate track based on the 2017 cost of service study initially presented to the Board at the April 10, 2018 meeting. This year the focus is on simplification of rates based on the five-year rate plan and board feedback from the last rate presentation in September 2018.

Staff is proposing closing rates over the next two years that encourage consumption and providing discounts based on age into their basic rate class. An example is the Residential Space Heating and Water Heating Rates closing into the Residential Rate.

Subsequent to this memo is a summary of the proposed rate adjustments showing the impacts of achieving the goal of simplifying rates at an estimated increase of \$126,000. (The simplification goal will be fully achieved with next year's proposed rate adjustment.) Following the summary is more detailed information on the impacts of the rate by rate class. Staff recognizes some of the rate increases appear significant when looking solely at the percentage change, however, staff believes while considering these rate adjustments there are other factors need to be taken into consideration such as average consumption, average monthly bill, the actual dollar increase per month along with the number of customers in the rate class.

The effected rates are Residential Water Heating, Residential Space Heating, Senior Citizen, Senior Citizen Water Heating, Senior Citizen Space Heating, Commercial Electric Heat and Air Conditioning and Commercial and Industrial Water Heating Rates. Additionally, staff will be requesting to close the Primary Interruptible Rate to the Primary High Load Factor Rate effective January 1. This rate was developed in October 2006 and has not been administered as initially intended, and the utility recognizes other options to shave peak demand. An analysis has been provided to the customer showing the impact of moving to the Primary High Load Factor Rate, which is an estimated \$60,000 increase to their annual electric cost.

Along with the proposed rate adjustment there are some modification to the Billing Demand tariff wording in various rate classes shown below:

The billing demand shall be the peak kilowatts (kW) supplied ~~during the fifteen (15) minute period of maximum use in the billing month,~~ but not less than the 5 kW.

It is staff's recommendation that the Board tentatively approve the rate adjustment and set a public hearing for the proposed rate adjustment at its September 10, 2019 meeting. If after Board discussion you agree with staff's recommendation the following motion would be appropriate.



**MOVED BY \_\_\_\_\_, SECONDED BY \_\_\_\_\_, THAT THE BOARD TENTATIVELY APPROVES THE RATE ADJUSTMENT AND AUTHORIZES THE SECRETARY TO SET A PUBLIC HEARING FOR THE PROPOSED NOVEMBER 1ST RATE ADJUSTMENT AT THE OCTOBER MEETING YET TO BE DETERMINED; AND FURTHER THAT A NOTICE OF THE PUBLIC HEARING BE POSTED ON THE UTILITY'S WEBSITE AND PLACED IN THE TRAVERSE CITY RECORD EAGLE.**

Traverse City Light and Power														
Summary Rate Design 2019														
Customer Class	Number of Customers and Consumption by Tiers		Current Monthly Rate	Proposed Monthly Rate	Difference	Current kWh	Proposed kWh	Difference	Current Revenues	Proposed Revenues	Dollar Difference	Average Monthly Impact	Percentage Change	
<b>Residential Water Heating</b>	350	350	7.50	7.50	-									
First Tier - 29 kWh per day (transitioning to 16 kWh per day)	2,293,650	1,671,354				0.0942	0.0921	(0.0021)	\$ 280,426.55	\$ 283,948.75	\$ 3,522.21	\$ 0.84	1.26%	
Second Tier - all over	359,292	981,589				0.1055	0.1055	-						
Power Cost Recovery	2,652,942	2,652,943				(0.0019)	(0.0019)	-						
<b>Residential Space Heating</b>	123	123												
Winter Rate			7.50	7.50	-									
First Tier - 16 kWh per day	728,527	728,527				0.0913	0.0921	0.0008	\$ 106,933.22	\$ 107,697.14	\$ 763.92	\$ 0.52	0.71%	
Second Tier - all over 16kWh per day	15,398	15,398				0.1055	0.1055	-						
Summer Rate			7.50	7.50	-									
First Tier - 16 kWh per day	226,376	226,376				0.0913	0.0921	0.0008						
Second Tier - all over 16kWh per day	85,904	85,904				0.1055	0.1055	-						
Power Cost Recovery	1,056,205	1,056,205				(0.0019)	(0.0019)	-						
<b>Senior Residential</b>	1,282	1,282	4.50	6.50	2.00									
First Tier - 16 kWh per day	5,163,138	5,163,138				0.0820	0.0880	0.0060	\$ 631,841.01	\$ 686,074.08	\$ 54,233.07	\$ 3.53	8.58%	
Second Tier - all over	1,366,138	1,366,138				0.1110	0.1055	(0.0055)						
Power Cost Recovery	6,529,276	6,529,276				(0.0019)	(0.0019)	-						
<b>Senior Water Heating</b>	93	93	4.50	6.50	2.00									
First Tier - 16 kWh per day	525,485	502,202				0.0836	0.0880	0.0044	\$ 50,366.24	\$ 55,317.93	\$ 4,951.69	\$ 4.44	9.83%	
Second Tier - all over 29 kWh per day	23,283	46,567				0.1055	0.1055	-						
Power Cost Recovery	548,768	548,769				(0.0019)	(0.0019)	-						
<b>Senior Space Heating</b>	15	15												
Winter Rate			4.50	6.50	2.00									
First Tier - 16 kWh per day	66,028	66,028				0.0899	0.0899	-	\$ 17,393.92	\$ 18,193.82	\$ 799.90	\$ 4.44	4.60%	
Second Tier - all over 16kWh per day	69,411	69,411				0.1000	0.1055	0.0055						
Summer Rate			4.50	6.50	2.00									
First Tier - 16 kWh per day	33,265	33,265				0.0899	0.0899	-						
Second Tier - all over 16kWh per day	10,570	10,570				0.1000	0.1055	0.0055						
Power Cost Recovery	179,274	179,274				(0.0019)	(0.0019)	-						
<b>Commercial Electric Heat and Air Conditioning Rates</b>	33	33	15.00	15.00	-									
First Tier - 16 kWh per day	1,507,633	1,507,633				0.1082	0.1120	0.0038	\$ 166,201.39	\$ 171,930.39	\$ 5,729.01	\$ 14.47	3.45%	
Power Cost Recovery	1,507,633	1,507,633				(0.0019)	(0.0019)	-						
<b>Commercial and Industrial Water Heating Rates</b>	2	2	15.00	15.00	-									
First Tier - 16 kWh per day	13,883	13,883				0.0990	0.1100	0.0110	\$ 1,708.04	\$ 1,860.75	\$ 152.71	\$ 6.36	8.94%	
Power Cost Recovery	13,883	13,883				(0.0019)	(0.0019)	-						
											<b>Total increase in rates including Primary Interruptible Rate</b>	<b>\$ 126,630.30</b>		
Notes:														
1) TCL&P provides life support rates at a 20% discount and it will be impacted by this rate change.														
2) A separate analysis was provided to the Primary Interruptible Customer and it showed an impact of approximately \$60,000 increase in funds to the utility.														
3) Change in consumption numbers relates to changes in blocks from 29 kWh per day to 16 kWh per day.														
4) Does not match the COS study exactly because of rounding of decimals.														

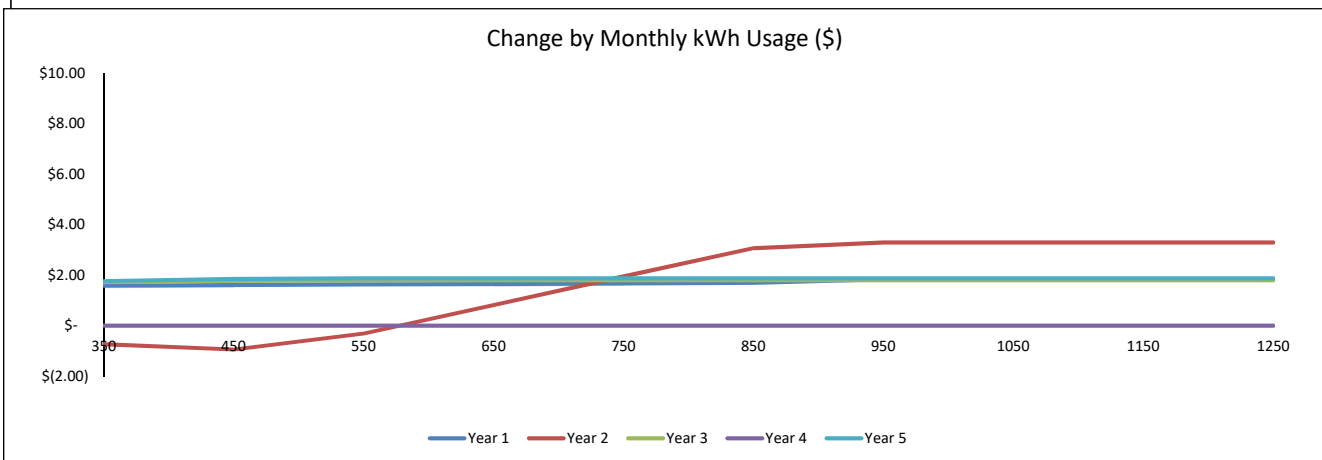
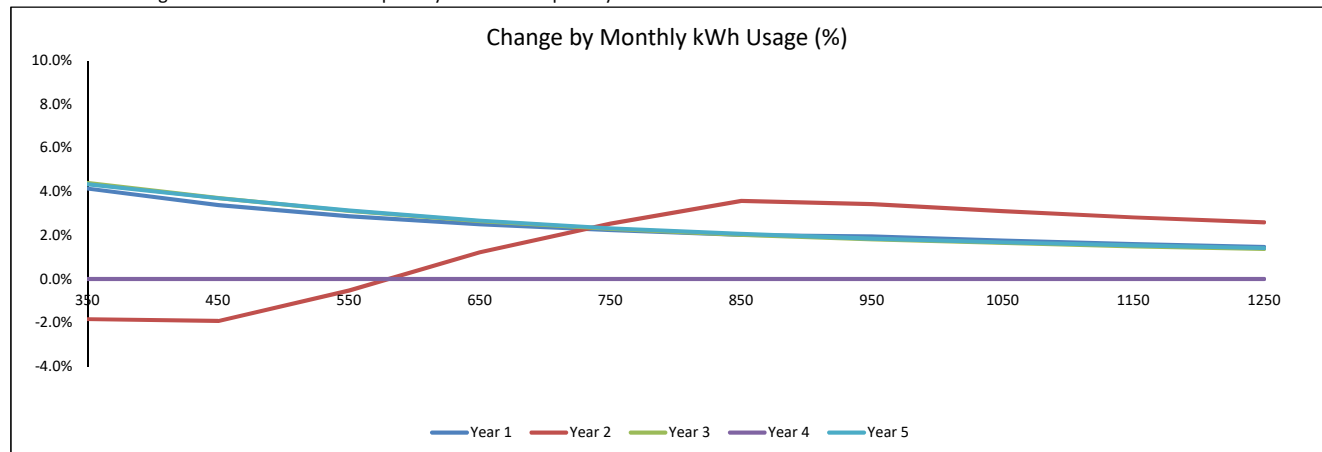
**TCL&P**

**Electric Rate Design**

Consolidated Residential Water Heater Rates

Rates	Residential Rate					
	Current	Year 1	Year 2	Year 3	Year 4	Year 5
Monthly Facilities Charge:						
All Customers	\$ 6.00	\$ 7.50	\$ 7.50	\$ 9.00	\$ 9.00	\$ 10.50
Energy Charge:						
Block 1 (0 - 29 kWh per day) -						
Year 2 (0-16 kWh per day)	\$ 0.0940	\$ 0.0942	\$ 0.0921	\$ 0.0928	\$ 0.0928	\$ 0.0935
Block 2 (Excess)	\$ 0.1055	\$ 0.1055	\$ 0.1055	\$ 0.1055	\$ 0.1055	\$ 0.1055
Power Cost Adjustment:						
All Energy	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)
Revenue from Rate	\$ 273,591	\$ 280,431	\$ 283,946	\$ 291,295	\$ 291,295	\$ 298,883
Change from Previous		2.5%	1.3%	2.6%	0.0%	2.6%

Note: Blocks change in Year 2 from 0-29 kwh per day to 0-16 kWh per day

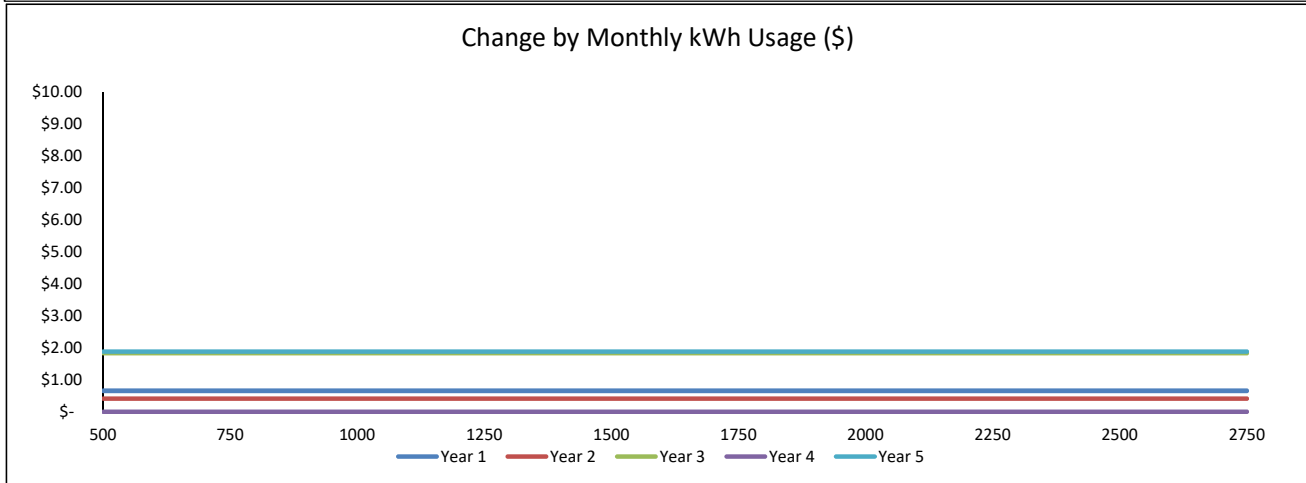
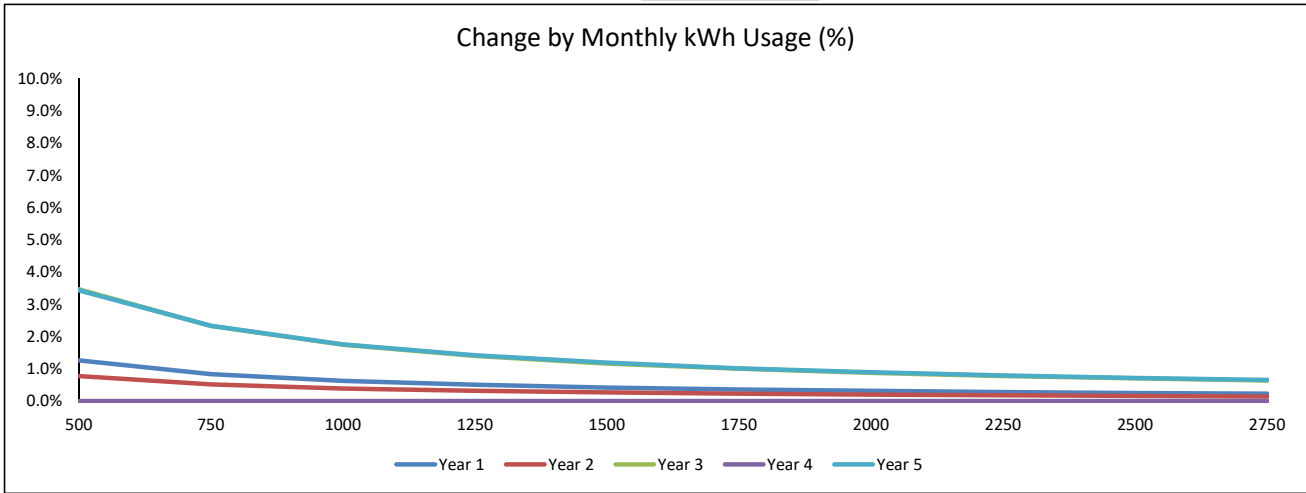


**TCL&P**

**Electric Rate Design**

Consolidated Residential Space Heat Rates

Rates	Residential Rate					Residential Rate	
	Current	Year 1	Year 2	Year 3	Year 4	Year 5	
<b>Monthly Facilities Charge:</b>							
All Customers	\$ 6.00	\$ 7.50	\$ 7.50	\$ 9.00	\$ 9.00	\$ 10.50	
<b>Energy Charge:</b>							
Winter Block 1 (0 - 480 kWh)	\$ 0.0920	\$ 0.0913	\$ 0.0921	\$ 0.0928	\$ 0.0928	\$ 0.0935	
Winter Block 2 (Excess)	\$ 0.1055	\$ 0.1055	\$ 0.1055	\$ 0.1055	\$ 0.1055	\$ 0.1055	
Summer Block 1 (0 - 480 kWh)	\$ 0.0940	\$ 0.0913	\$ 0.0921	\$ 0.0928	\$ 0.0928	\$ 0.0935	
Summer Block 2 (Excess)	\$ 0.1055	\$ 0.1055	\$ 0.1055	\$ 0.1055	\$ 0.1055	\$ 0.1055	
<b>Power Cost Adjustment:</b>							
All Energy	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	
Revenue from Rate	\$ 105,810	\$ 106,868	\$ 107,667	\$ 110,522	\$ 110,522	\$ 113,472	
Change from Previous		1.0%	0.7%	2.7%	0.0%	2.7%	

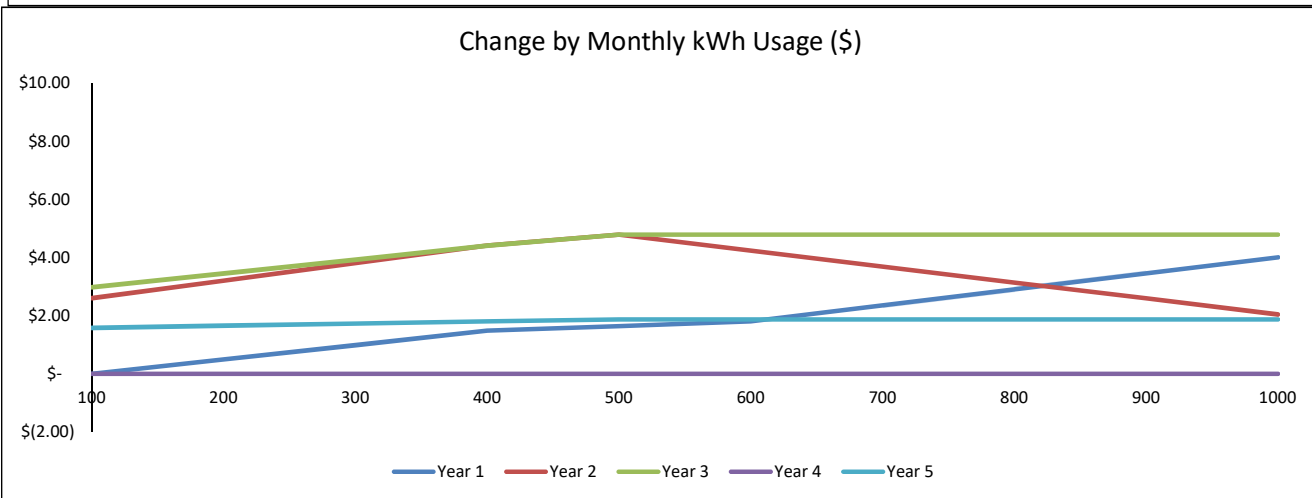
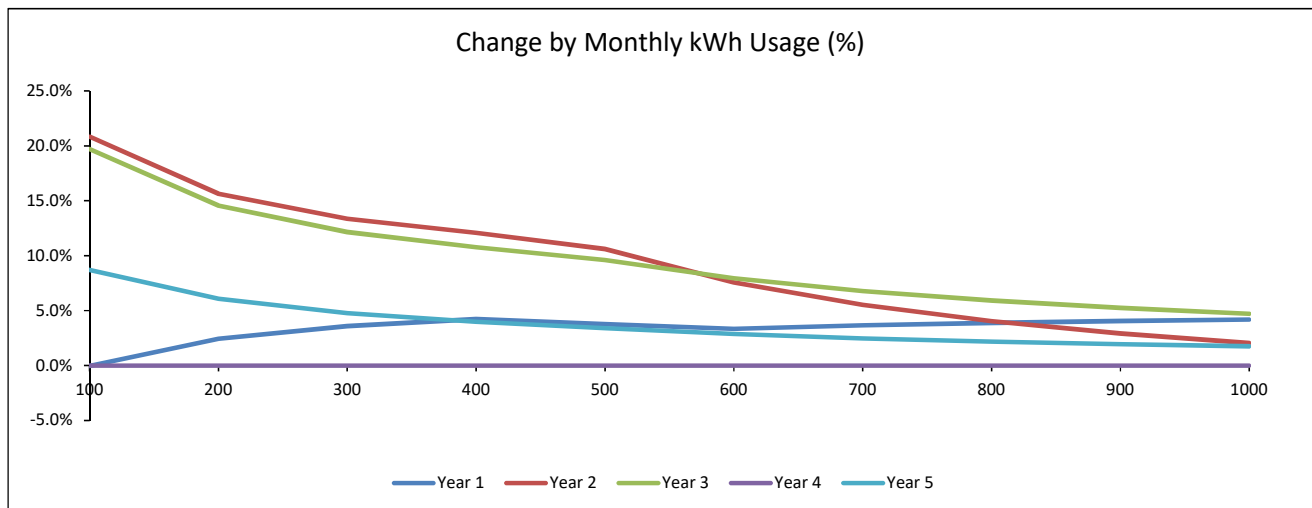


**TCL&P**

**Electric Rate Design**

Projected Senior Citizen Rates

Rates	Residential Rate					
	Current	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Monthly Facilities Charge:</b>						
All Customers	\$ 5.00	\$ 7.50	\$ 7.50	\$ 9.00	\$ 9.00	\$ 10.50
Senior Discount		\$ 3.00	\$ 1.00	\$ -	\$ -	\$ -
<b>Energy Charge:</b>						
Block 1 (0 - 480 kWh)	\$ 0.07700	\$ 0.0820	\$ 0.0880	\$ 0.0928	\$ 0.0928	\$ 0.0935
Block 2 (481 - 522 kWh)	\$ 0.12290	\$ 0.1110	\$ 0.1055	\$ 0.1055	\$ 0.1055	\$ 0.1055
Block 3 (Excess)	\$ 0.10550	\$ 0.1110	\$ 0.1055	\$ 0.1055	\$ 0.1055	\$ 0.1055
<b>Power Cost Adjustment:</b>						
All Energy	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)
Revenue from Rate	\$ 625,173	\$ 631,425	\$ 685,886	\$ 748,984	\$ 748,984	\$ 776,038
Change from Previous		1.0%	8.6%	9.2%	0.0%	3.6%

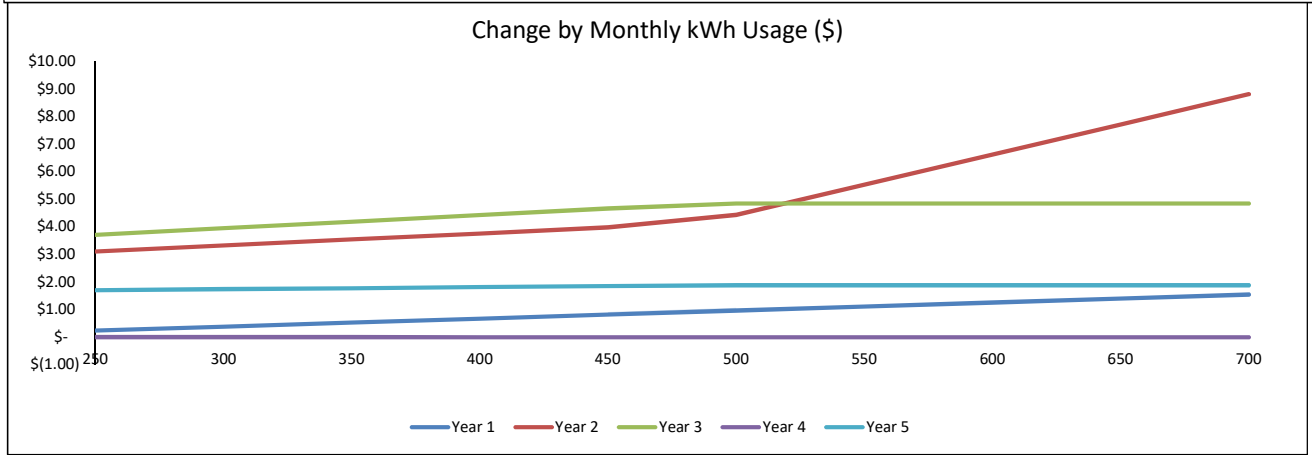
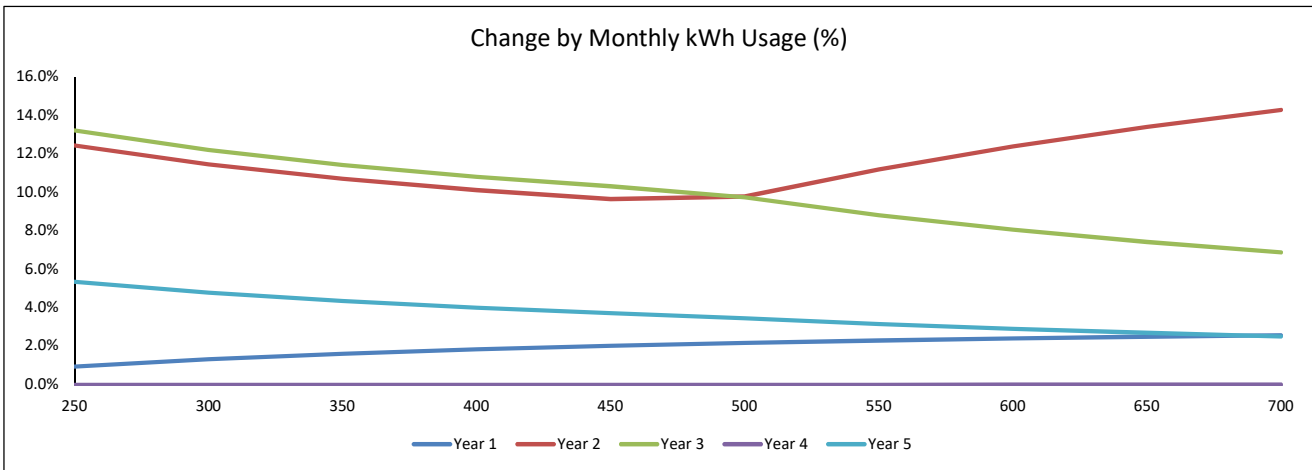


**TCL&P**

**Electric Rate Design**

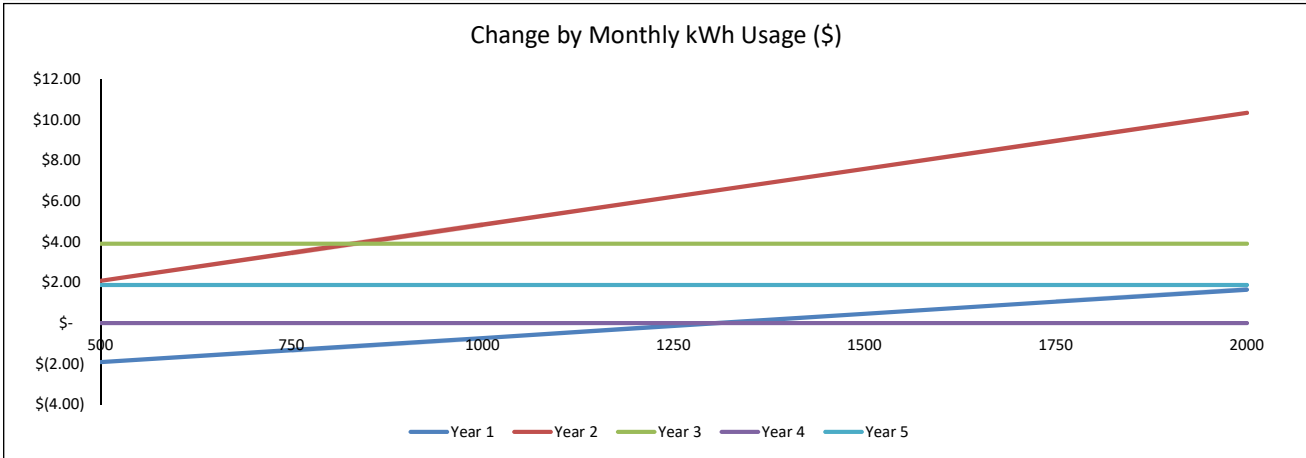
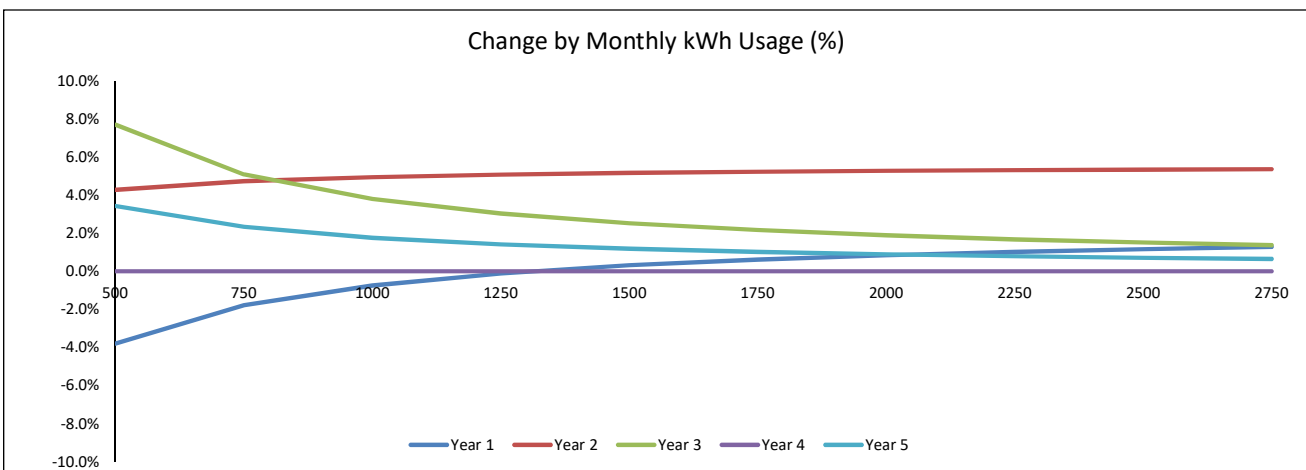
Consolidated Senior Water Heater Rates

Rates	Residential Rate					
	Current	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Monthly Facilities Charge:</b>						
All Customers	\$ 5.00	\$ 7.50	\$ 7.50	\$ 9.00	\$ 9.00	\$ 10.50
Senior Discount		\$ 3.00	\$ 1.00	\$ -	\$ -	\$ -
<b>Energy Charge:</b>						
Block 1 (0 - 29 kWh per day) -						
Year 2 (0-16 kWh per day)	\$ 0.08070	\$ 0.08361	\$ 0.0880	\$ 0.0928	\$ 0.0928	\$ 0.0935
Block 2 (Excess)	\$ 0.10550	\$ 0.1055	\$ 0.1055	\$ 0.1055	\$ 0.1055	\$ 0.1055
Power Cost Adjustment	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)
Revenue from Rate	\$ 49,385	\$ 50,356	\$ 55,302	\$ 60,503	\$ 60,489	\$ 62,549
Change from Previous		2.0%	9.8%	9.4%	0.0%	3.4%



**TCL&P**  
**Electric Rate Design**  
 Consolidated Senior Space Heat Rates

Rates	Current	Year 1	Year 2	Residential Rate		
				Year 3	Year 4	Year 5
<b>Monthly Facilities Charge:</b>						
All Customers	\$ 5.00	\$ 7.50	\$ 7.50	\$ 9.00	\$ 9.00	\$ 10.50
Senior Discount		\$ 3.00	\$ 1.00	\$ -	\$ -	\$ -
<b>Energy Charge:</b>						
Winter Block 1 (0 - 488 kWh)	\$ 0.09200	\$ 0.0899	\$ 0.0899	\$ 0.0928	\$ 0.0928	\$ 0.0935
Winter Block 2 (Excess)	\$ 0.09200	\$ 0.1000	\$ 0.1055	\$ 0.1055	\$ 0.1055	\$ 0.1055
Summer Block 1 (0 - 488 kWh)	\$ 0.09400	\$ 0.0899	\$ 0.0899	\$ 0.0928	\$ 0.0928	\$ 0.0935
Summer Block 2 (Excess)	\$ 0.10550	\$ 0.1000	\$ 0.1055	\$ 0.1055	\$ 0.1055	\$ 0.1055
<b>Power Cost Adjustment:</b>						
All Energy	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)
Revenue from Rate	\$ 17,257	\$ 17,386	\$ 18,189	\$ 18,924	\$ 18,924	\$ 19,270
Change from Previous		0.7%	4.6%	4.0%	0.0%	1.8%

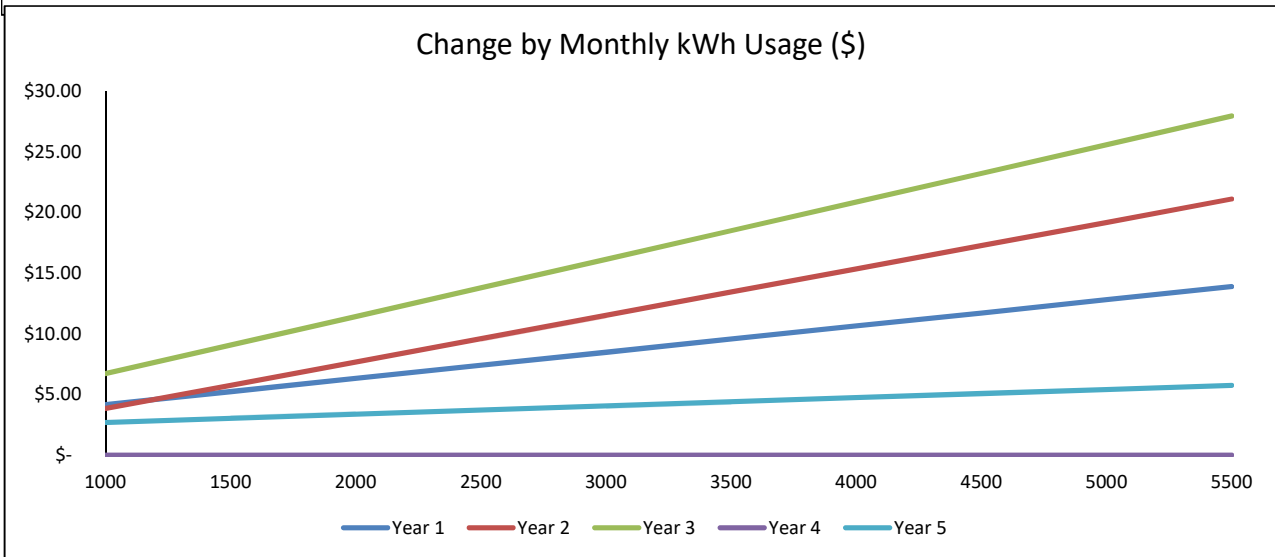
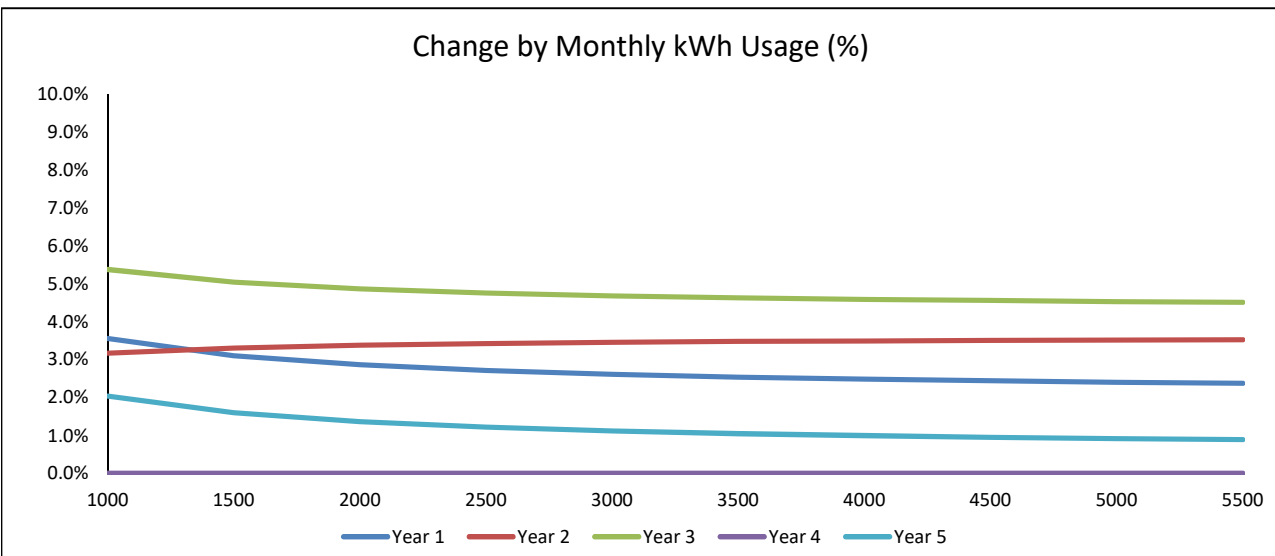


**TCL&P**

**Electric Rate Design**

Consolidated Commercial Electric Heat and Air Conditioning Rates

Rates	Commercial Rate					
	Current	Year 1	Year 2	Year 3	Year 4	Year 5
Monthly Facilities Charge:						
All Customers	\$ 13.00	\$ 15.00	\$ 15.00	\$ 17.00	\$ 17.00	\$ 19.00
Energy Charge:						
All Energy	\$ 0.1060	\$ 0.1082	\$ 0.1120	\$ 0.1167	\$ 0.1167	\$ 0.1174
Power Cost Adjustment:						
All Energy	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)
Revenue from Rate	\$ 162,049	\$ 166,100	\$ 171,887	\$ 179,791	\$ 179,791	\$ 181,612
Change from Previous		2.5%	3.5%	4.6%	0.0%	1.0%



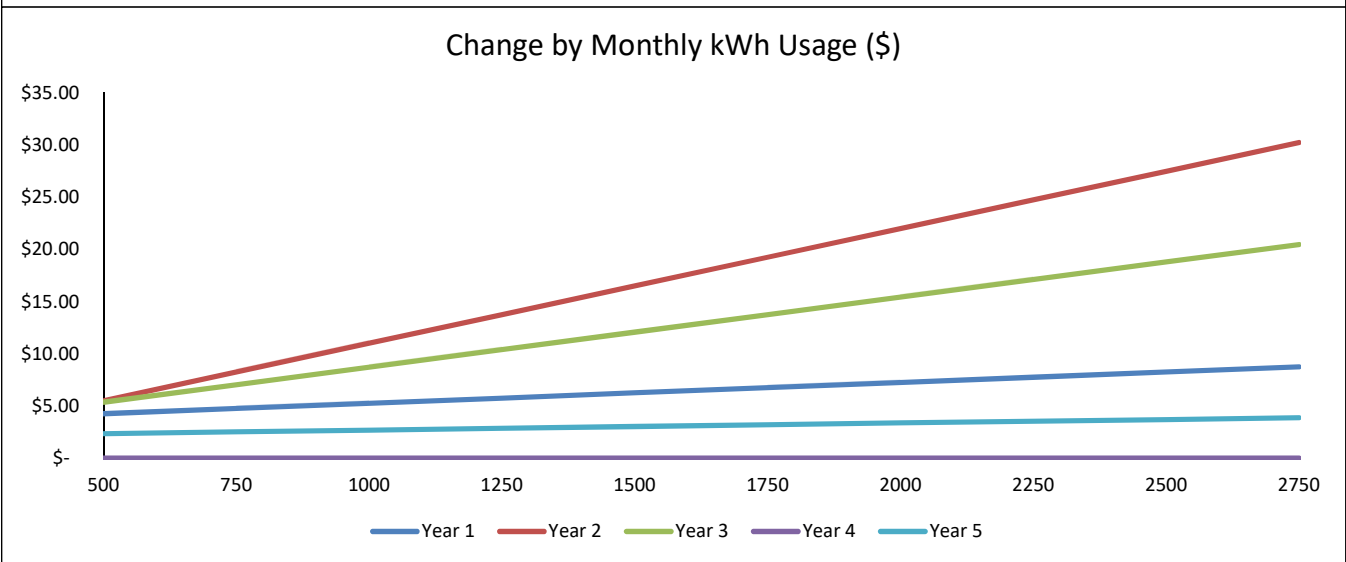
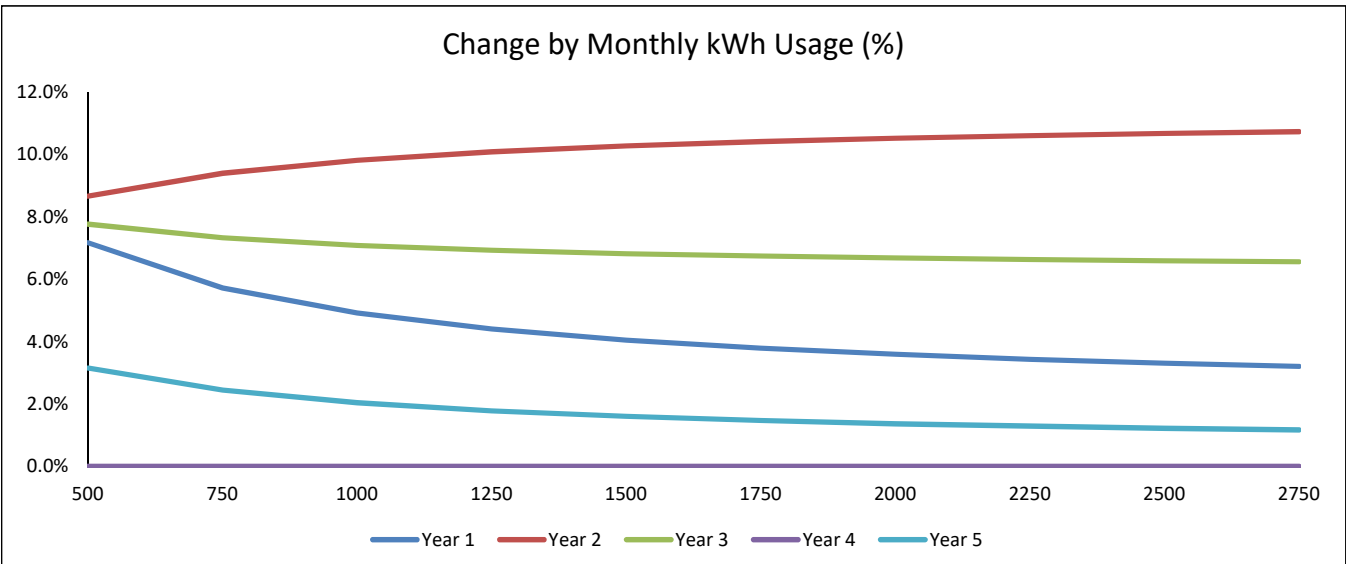


**TCL&P**

**Electric Rate Design**

Consolidated Commercial and Industrial Water Heating Service Rates

Rates	Commercial Rate					
	Current	Year 1	Year 2	Year 3	Year 4	Year 5
Monthly Facilities Charge:						
All Customers	\$ 11.75	\$ 15.00	\$ 15.00	\$ 17.00	\$ 17.00	\$ 19.00
Energy Charge:						
All Energy	\$ 0.0970	\$ 0.0990	\$ 0.1100	\$ 0.1167	\$ 0.1167	\$ 0.1174
Power Cost Adjustment:						
All Energy	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)	\$ (0.0019)
Revenue from Rate	\$ 1,602	\$ 1,708	\$ 1,860	\$ 2,002	\$ 2,002	\$ 2,059
Change from Previous		6.6%	8.9%	7.6%	0.0%	2.9%



# TCL&P Rate Presentation



TRAVERSE CITY  
LIGHT & POWER

Investing Our Energy In You



TRAVERSE CITY  
LIGHT & POWER  
Investing Our Energy In You

## Objectives

- Overall rate strategy five year rate plan
  - **Simplification of the rate structure** – September 2019 & 2020
  - Subsidy correction between rate classes – September 2020
  - Move rates towards cost of service – September 2020



## Simplification of the Rate Structure

- Complete phase-in consolidations of the following rates – this year
  - Residential Water Heating and Space Heating to Residential Rate
  - Primary Interruptible to Primary High Load Factor Rate
- Complete phase-in consolidations of the following rates – following year
  - Senior Rate into the Residential Rate
  - Senior Water Heating and Space Heating to Residential Rate
  - Commercial and Industrial Water Heat to Commercial Rate
  - Commercial Electric Heat and Air Conditioning to Commercial Rate



## Impact on customer based on average consumption for each rate class

<b>Tariff Rate</b>	<b># of Customers</b>	<b>Average Consumption</b>	<b>Average Bill</b>	<b>Approximate Rate Change</b>	<b>Percentage Change</b>
Residential Water Heater	350	632	\$ 67.64	\$ 0.60	.9%
Residential Space Heat	123	716	\$ 76.10	\$ 0.39	.5%
Senior Rate	1,282	424	\$ 39.26	\$ 4.54	11.6%
Senior Water Heat	93	492	\$ 45.63	\$ 4.25	9.3%
Senior Space Heat	15	996	\$ 99.17	\$ 4.79	4.8%
Commercial Electric Heat and Air Conditioning	33	3,807	\$ 426.92	\$ 14.46	3.4%
Commercial Water Heat	2	578	\$ 72.22	\$ 6.36	8.8%

## Next steps and future items for consideration

- Move forward with public hearing in October
- Continue to review the five year rate track each year at budget time
- Planning rate strategy session for implementation of time of use rates when we have a year's worth of consumption data
- Staff is continuing to work on “Rules of Operation” document, which will encompass all ancillary charges of the utility in addition to the tariff rates along with policies and procedures – larger endeavor than expected
- Staff is working on developing an Electric Vehicle PILOT rate for residents encouraging consumption during off peak periods
- As the LED fixtures are continually changing staff is planning to update the tariff rates on street lighting and private area lighting to reflect current costs associated with the utility's lighting program



# Traverse City Light and Power 2019



# Agenda

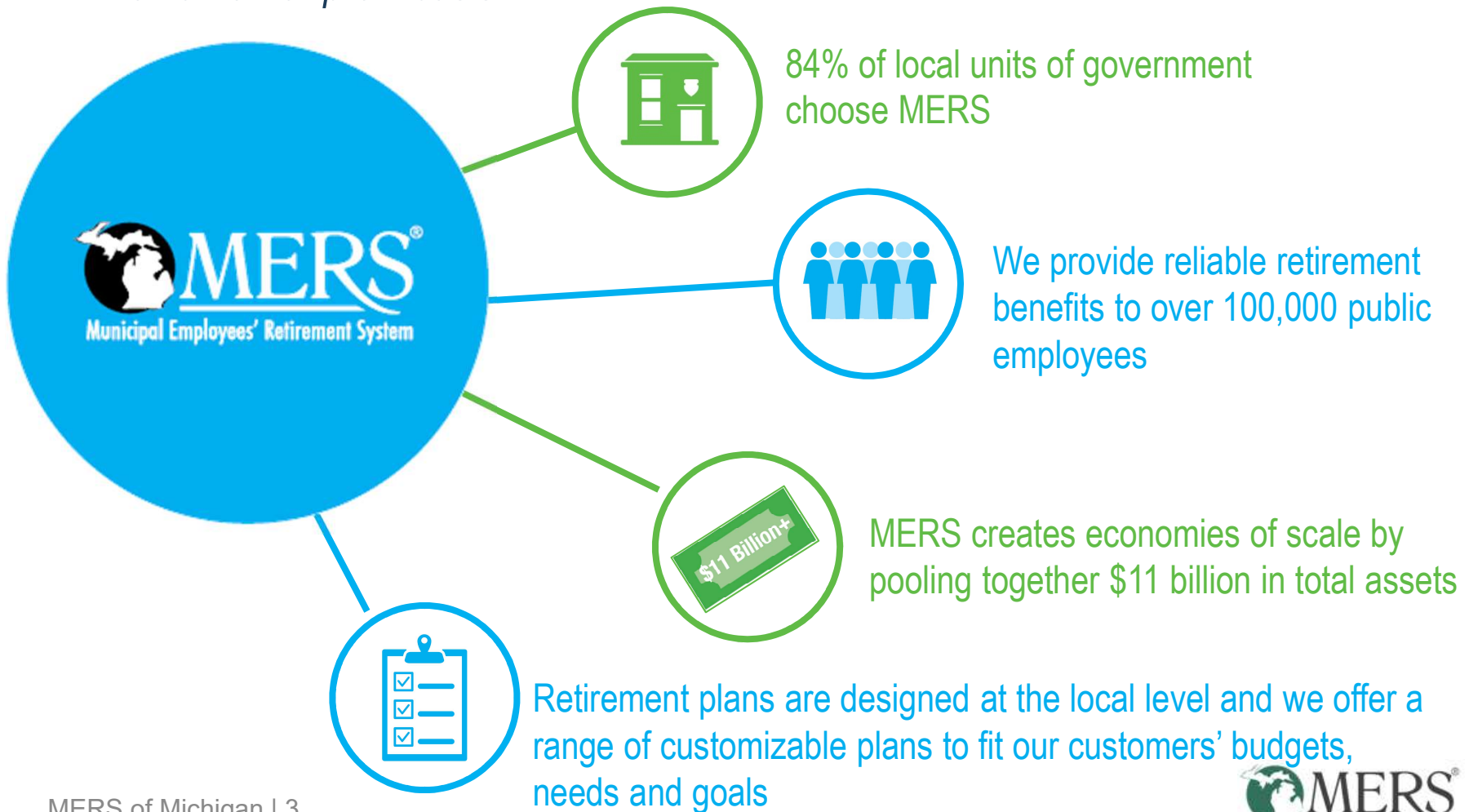
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- About MERS
- Managing UAL
- Looking Ahead



# MERS of Michigan

*MERS is an independent professional retirement services company that was created to administer the retirement plans for Michigan's local units of government on a not-for-profit basis*



# An Independent Elected Board

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- MERS is governed by an elected board that operates without compensation
- Our board is committed to accountability and transparency, holding the line on costs, and watching out for the best interest of our members
- The ***MERS Retirement Board*** takes ***on the sole fiduciary responsibility***



## **MERS Retirement Board**

is responsible for administration of the system with fiduciary responsibility for the investment of assets and oversight.

# Plan Design Strategies to Manage UAL

Strategy	Description	Trend					Impact
		2015	2016	2017	2018	2019	
<b>Lower Benefit to New Hires</b>	New hires receive a lower tier of Defined Benefit provisions	52	34	47	24	16	Existing employees not affected Reduces the liability for new hires
<b>Bridged Benefits for Existing Employees</b>	Benefits are offered in parts to existing employees Multiplier is lower going forward	16	45	27	40	16	Leaves earned benefits unchanged Reduces the liability for new hires and existing employees
<b>Hybrid for New Hires</b>	New hires receive a Hybrid Plan	21	15	12	13	0	Existing employees are not affected Reduces liability for new hires
<b>Defined Contribution for New Hires</b>	New hires receive a Defined Contribution Plan	37	39	73	56	27	Existing employees are not affected Eliminates liability for new hires
<b>Bridged Cost of Living Adjustment (COLA)</b>	Eliminates the COLA on future service credit	n/a	n/a	n/a	8	8	Leaves earned benefits unchanged Reduces the liability for new hires and existing employees
<b>Defined Benefit Plan Freeze</b>	Plan is frozen and all employees move to a new plan	n/a	7	3	2	2	Existing employees do not accrue additional service credit and FAC is frozen

Divisions that have adopted these strategies as of 7/31/2019.

# TCLP plan design changes

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- Lowered the DB plan from a 2.25 to a 1.5 multiplier
- Elected a non-standard definition of compensation on base wages
- All line workers hired after February of 2019 will have a Defined Contribution retirement plan. Thus eliminating the possibility of UAL associated with these new hires.

Note: The recent changes effective February of 2019 are not represented in the 12/31/2018 Annual Actuarial Valuation. The financial impact of these changes will be recognized in the 12/31/2019 Annual Actuarial Valuation.

# Funding Strategies to Manage UAL

Strategy	Description	Trend					Impact
		2015	2016	2017	2018	2019	
<b>Cost Sharing for Existing Employees<sup>1</sup></b>	Employees contribute to help fund the overall cost of the plan	97	136	169	130	80	Reduces the employer cost, but does not affect total cost or the plan's unfunded liability
<b>Voluntary Contributions<sup>2</sup></b>	Additional payments made into plan toward unfunded liability	277	320	421	442	386	Reduces existing liability Extra dollars are invested and recognize market returns
<b>Bonding<sup>3</sup></b>	Municipalities may bond for all or a portion of their unfunded accrued liabilities — pension or OPEB	1	3	2	6	0	Proceeds of the bond are deposited and potentially will fully fund the UAL  No guarantee that future unfunded liabilities may not occur

<sup>1</sup>Divisions that have adopted this strategy as of 7/31/2019.

<sup>2</sup>Municipalities that have adopted this strategy as of 6/30/2019.

<sup>3</sup>Municipalities that have adopted this strategy as of 7/31/2019.

# TCLP custom amortization period and MVA

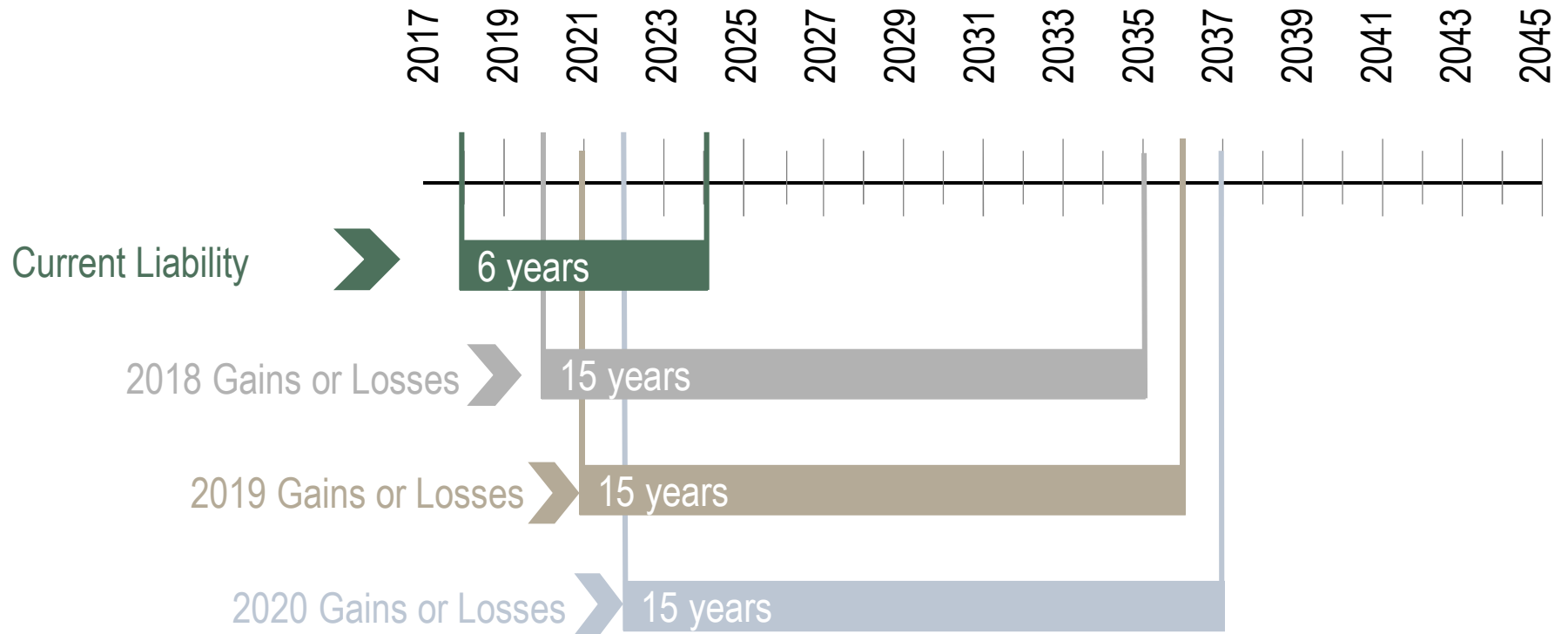
Employer Contribution based on market value of assets and a 7 year amortization schedule effective 07/01/2019

Division	Effective Date	Employer Rate
01 – Non-union	07/01/2019	\$46,223
10 - Union	07/01/2019	\$130,604
<b>11 – Non-Un on/after 7/1/2017</b>	<b>07/01/2019</b>	<b>9.16%</b>
12 – Un after 7/1/12	07/01/2019	6.52%
13 – Union Line Workers pre 7/1/12	07/01/2019	\$18,271
<b>14 – Union Line Workers after 7/1/12</b>	<b>07/01/2019</b>	<b>\$0</b>

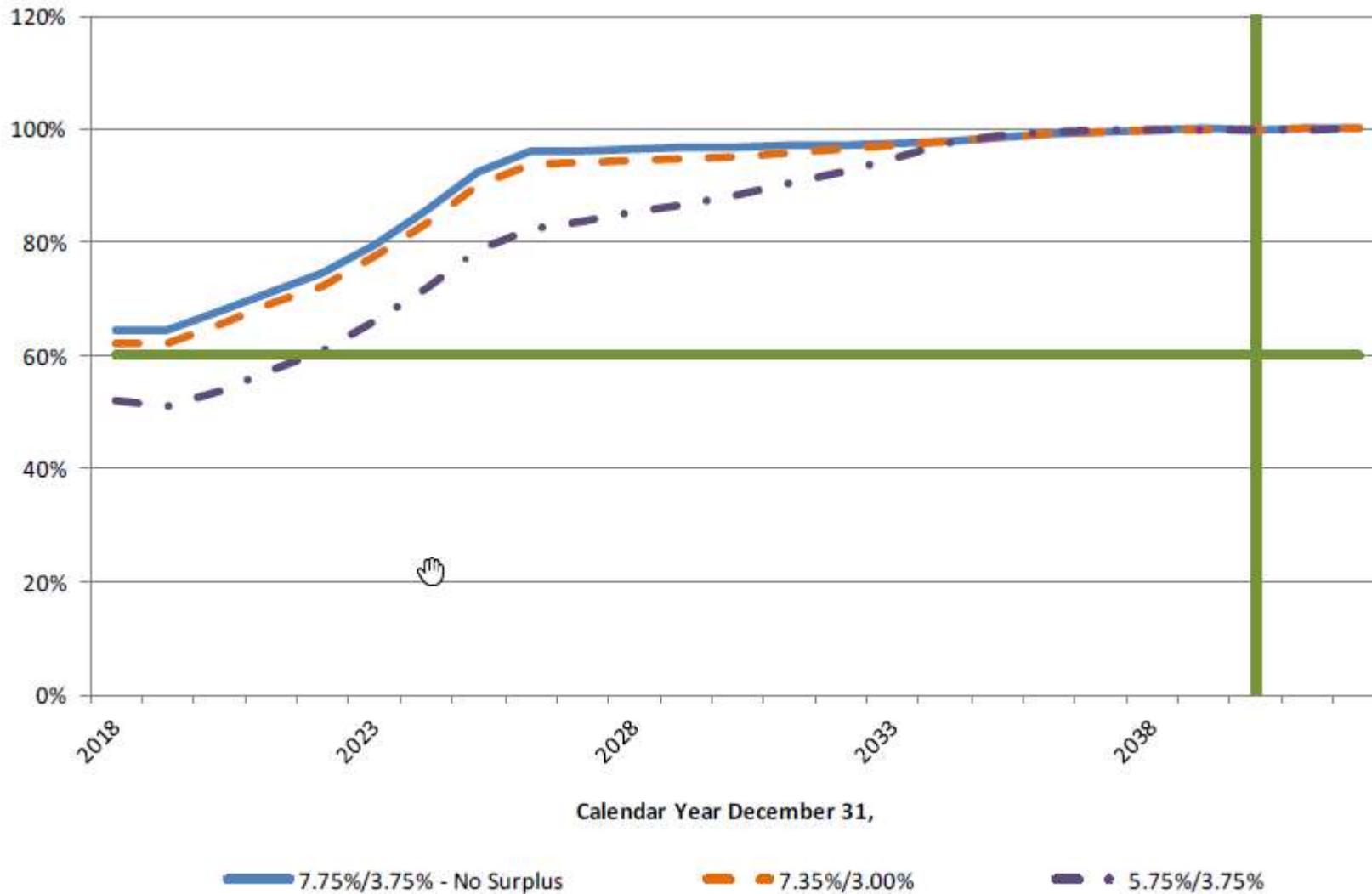
Employer Contribution based on market value of assets and a 6 year amortization schedule effective 07/01/2020

Division	Effective Date	Employer Rate
01 – Non-union	07/01/2020	\$54,257
10 - Union	07/01/2020	\$133,506
11 – Non-Un on/after 7/1/2017	07/01/2020	9.79%
12 – Un after 7/1/12	07/01/2020	8.42%
13 – Union Line Workers pre 7/1/12	07/01/2020	\$21,173
14 – Union Line Workers after 7/1/12	07/01/2020	\$0

# Layered Amortization Example



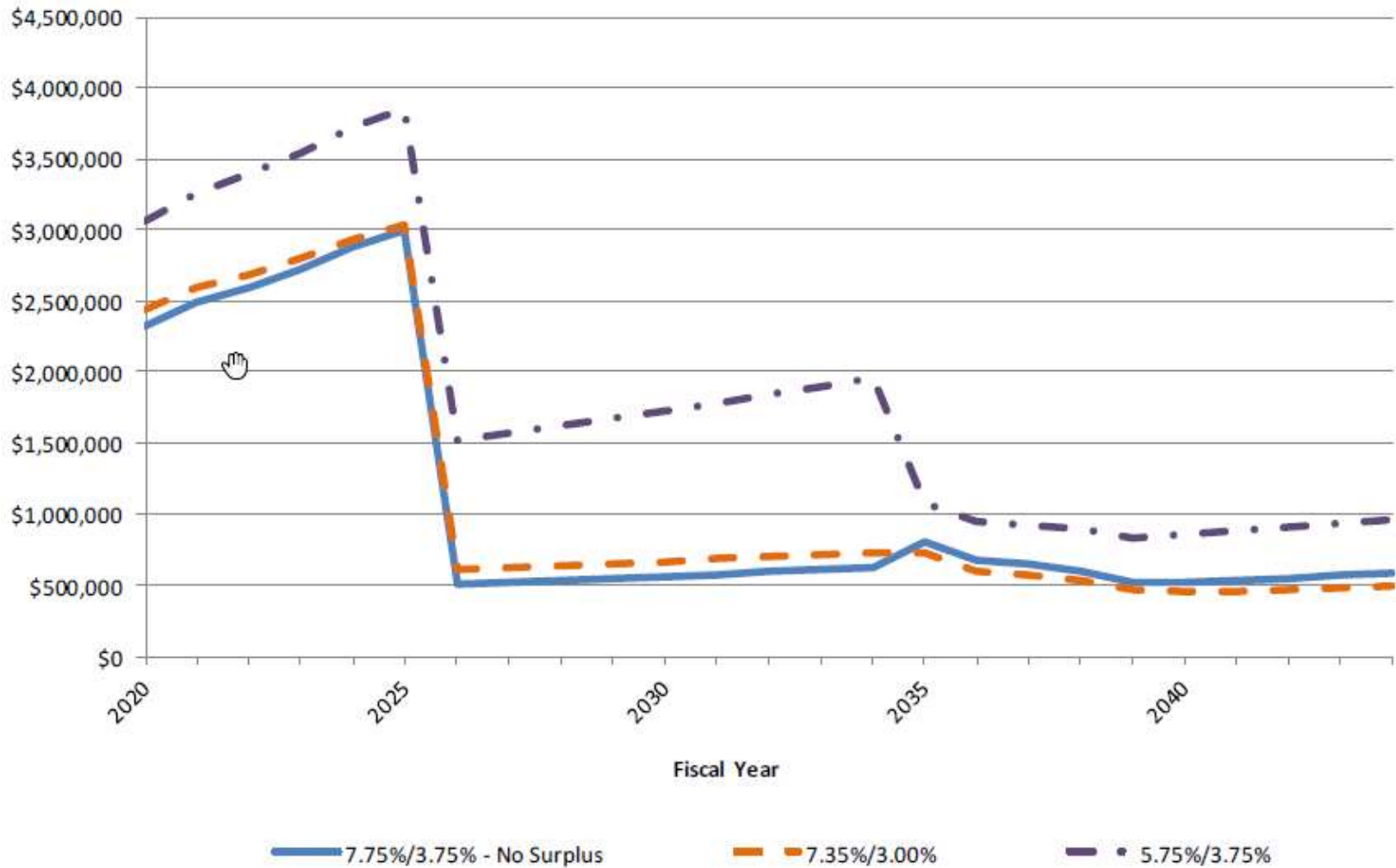
# Percent funded projections





# Required contribution projections

Computed Annual Employer Contribution



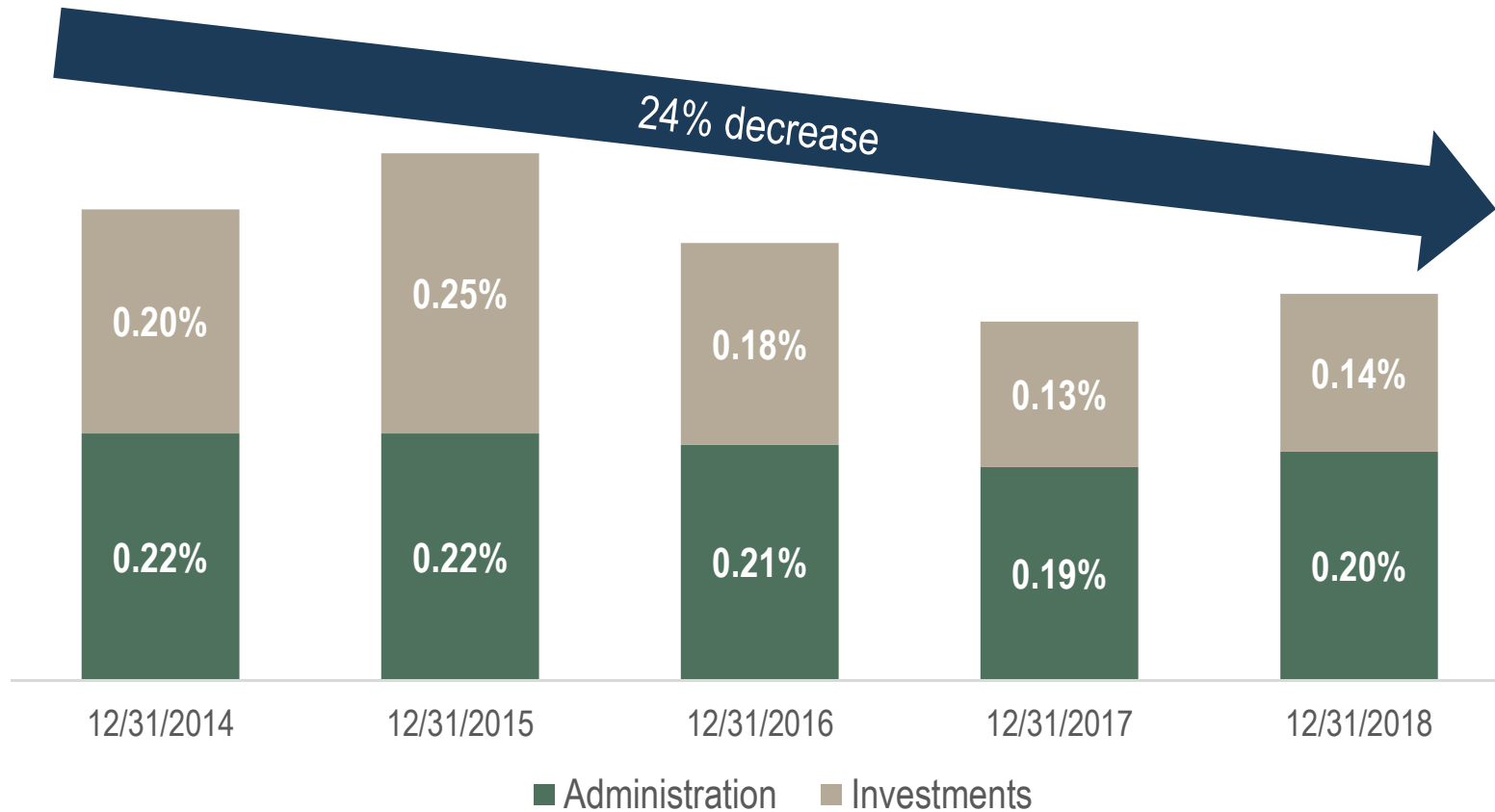
# Summary of impact of changes

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- Plan designed changes of lower defined benefits have reduce the cost of the defined benefit plans
- Closing of defined benefit plans to defined contribution plans have eliminated the possibility of Unfunded Accrued Liability associated with those employees
- The shorter amortization plan will have the associated UAL 14 years sooner than the MERS standard amortization period.
- Paying MVA will reduce the potential of new UAL based on the timing of when assets are contributed.

# Defined Benefit Plan Cost History

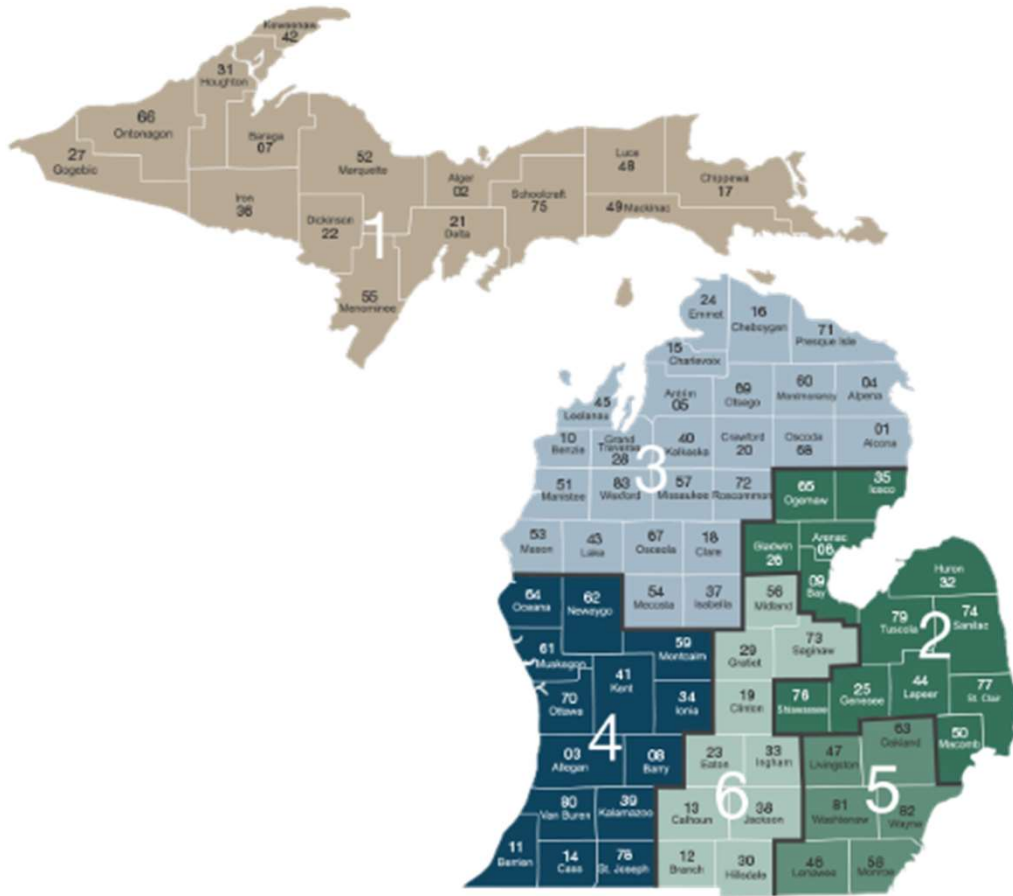
Five-year History



# MERS Regional Teams

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- Our Regional Teams provide local service throughout the state
- Your team consists of four members:
  - Regional Manager
  - Benefit Plan Advisor
  - Benefit Plan Coordinator
  - Benefit Education Specialist



# Contacting MERS of Michigan

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## MUNICIPAL EMPLOYEES' RETIREMENT SYSTEM

1134 Municipal Way  
Lansing, MI 48917

800.767.MERS (6377)

[www.mersofmich.com](http://www.mersofmich.com)



*This presentation contains a summary description of MERS benefits, policies or procedures. MERS has made every effort to ensure that the information provided is accurate and up to date. Where the publication conflicts with the relevant Plan Document, the Plan Document controls.*



**To:** Traverse City Light and Power Board  
**From:** Tim Arends - Executive Director  
**Meeting:** Regular Board - Sep 10 2019  
**Subject:** Presentation on tree ordinance

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Presentation:  
Cover Memo Placeholder: Presentation is Next

**TRAVERSE CITY CODE OF ORDINANCES**

**ORDINANCE AMENDMENT NO. \_\_\_\_\_**

Effective date: \_\_\_\_\_

TITLE: Landscaping and Trees Amendment

THE CITY OF TRAVERSE CITY ORDAINS:

That the *Definitions*, Section 1320.07; *Site plans required; site diagrams; waiver*, Section 1366.01 in the Site Plans and Site Development Standards Chapter; all sections in Chapter 1372 Landscaping; Appendix 3, *Approved Regional Landscape Character Plant List* of the Zoning Code of the Traverse City Code of Ordinances, be amended to read in its entirety as follows:

1320.07 Definitions (need to include the entire Definitions section when this is actually introduced)

*Land clearing* means:

- (1) The clearing removal of over 8,000 4,000 square feet of woody vegetation from any site, or
- (2) The removal of over 20,000 square feet of woody vegetation from any site requires Planning Commission Site Plan Review (see Chapter 1366)
- (23) The removal of more than 20 10 trees more than 6 inches in diameter at breast height or 2 trees more than 24 inches in diameter at breast height from any parcel site within 50 feet of a public or private street or river.

Mowing, trimming or pruning of vegetation to maintain it in a healthy, viable condition is not land clearing.

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*Invasive Species* means:

- (1) Non-native (or alien) to the ecosystem under consideration; and,
- (2) Whose introduction causes or is likely to cause economic or environmental harm or harm to human health.

*Tree Canopy Cover* means:

- (1) The cover provided by tree crowns over the ground surface, either individually or as a group; also, a measure of the percent of a lot covered by all tree canopy, calculated by dividing the total area of tree canopy cover by the total area of the lot, and multiplying by 100.

*Woody plant* means:

(1) Vegetation that produces wood as its structural tissue. Woody plants include trees, bushes, shrubs, vines and woody perennial flowering plants.

Tree protection area means: the soil around and under a tree. The radius of the tree protection area measures 1 foot per 1 inch of diameter at breast height (DBH) from the trunk outwards and twenty-four inches in depth. For example, for a 10 inch DBH tree, the Tree Protection area is located at least 10 feet out from the trunk and 24 inches deep.

DRAFT



1366.01 - Site plans required; site diagrams; waiver.

(a) *Site plans.* Site plans are required as follows:

- (1) Any request for a land use permit, land clearing **more than 20,000 square feet of woody vegetation** (see definition), an administrative special land use permit or building permit (other than for single or two-family dwellings) shall be accompanied by 3 copies of a site plan complying with the requirements of this chapter.
- (2) Any request for a Planning Commission-special land use permit, planned unit development, ~~or~~ request for a land use permit for a use that generates more than 500 trip ends per day, or request for a land use permit for more than 20,000 square feet of **land clearing from any site** shall be accompanied by 14 copies of a site plan complying with the requirements of this chapter. The generation of trip ends is determined by reference to the latest edition of the Trip Generation manual promulgated by the Institute of Transportation Engineers.

(b) *Site diagrams.* Any request for a land use permit or building permit for a single family or two-family dwelling or accessory structure shall be accompanied by 3 copies of a diagram drawn to scale showing the proposed use of the site, buildings and structures on the site, lot lines and their relationship to existing property lines and to neighboring sites. The Planning Director shall circulate site diagrams to the relevant officials for comments as to conformance to state and federal laws and the Traverse City Code. A sample site diagram is shown as Figure 1-4 in Appendix 2.

(c) *Waiver.* The Planning Director may waive site plan requirements in any of the following cases when he or she determines that the submission of a site plan would serve no useful purpose:

- (1) Accessory structures;
- (2) Any enlargement of a principal building by less than 20 percent of its existing gross floor area of provided such enlargement will not result in a requirement for additional parking;
- (3) A change in principal use where such change would not result in a increase in impervious surface, additional off-street parking, access or other external site characteristics or a violation of this Code.

## Chapter 1372 – Landscaping and Trees

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The process of development may require the alteration of existing topography and soil structure, the disruption of native vegetation and the expansion of impervious surface area over the development site. The cumulative effects of the land altering process extend far beyond the property lines of an individual development site and if development is not undertaken within the context of the broader community, it will not only degrade the individual development, but also the community of which it is a part. It is, therefore, the intent of this chapter to protect and manage vegetation to:

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- (1) Aid in the stabilization of the environmental balance through air purification, oxygen regeneration, reduction of urban heat island effect, groundwater protection and recharge and the control of stormwater runoff.
- (2) Safeguard and enhance private and public property values and encourage continued investment in the community.
- (3) Enhance community appearance, identify unique natural beauty, and promote quality development at a suitable scale.
- (4) Provide visual screens between land uses of differing character and use intensities.
- (5) Prevent reductions in the City's urban forest.
- (6) Provide for the preservation of larger native trees which are valuable amenities to the urban environment that, once destroyed, can only be replaced after generations; and
- (7) Ensure that the local stock of native trees and vegetation is replaced.

It is recognized that alternative design concepts exist which, if adopted, could exceed the results envisioned using these development standards. It is intended that the requirements of this chapter be flexible and permit latitude in site design and the use of plant materials when it can be shown that variation from the requirements will provide a development substantially better than that achievable using the minimum standards of this chapter. The provisions of this chapter shall be considered the minimum development standards and not a design goal.

### 1372.01 - Compliance required.

- (a) ~~For all uses except one- and two-family residential uses,~~ For parcels with three or more dwellings, compliance with this chapter shall be required for:
  - (1) Any new building or expansion of an existing building, ~~rebuilding, conversion, enlargement or structural alteration~~ requiring a building permit and having a value of \$20,000.00 or more;
  - (2) Land clearing more than 20,000 square feet as ~~described~~ defined in this Zoning Code; or

- (3) Parking areas that are required to comply with Section 1374.03, Motor Vehicle Parking.

- (b) Compliance is not required for trees which are removed for an aeronautical use or which obstructs the air space for safe flight of aircraft landing or taking off at the airport or helicopter landing pad.

#### 1372.02 - Alternative compliance.

The Planning Director may approve variations from strict compliance with this chapter, including up to a fifty percent reduction for the front and rear setback, when there is no feasible alternative and an applicant can demonstrate that at least one of the following apply to a specific development site:

- (1) When topography, shape, size or other natural features make full compliance impractical or impossible.
- ~~(2) When space limitations or prevailing development patterns in the surrounding neighborhood justify alternative compliance for in fill projects and redevelopment in older established areas of the City.~~
- (3) When safety considerations warrant alternative compliance.
- (4) When there is no ~~ant viable~~ practical alternative in the ~~practical~~ siting of a building or changing the shape or size of the footprint of the building or the location of site access or the location of underground utilities to service the site.
- (5) When the alternative compliance plan is equal to or superior in its ability to fulfill the intent of this chapter.
- (6) When a required setback would necessitate the removal of an existing tree greater than or equal to 6 inches diameter at breast height. Any existing tree greater than or equal to 6 inches diameter at breast height that is preserved by an approved variation must be protected and remain for at least five years from the date of the variation.

#### 1372.03 - Standards and materials.

- (a) *General performance standards.* The following general performance standards shall apply whenever compliance is required:
  - (1) All areas not covered by buildings, parking areas, driveways, walkways, pedestrian plazas or other pedestrian oriented impervious surfaces or water surfaces shall be planted with living vegetation, including canopy trees, shrubbery and ground covers. The combination of plant materials selected shall be placed in harmonious and natural associations and represent the approved indigenous landscape materials and their cultivars listed in Appendix 3 the Tree Species Guidelines document adopted by the Parks and Recreation Commission and found on the City's website on the Parks and Recreation Division page.

- ~~(2) Not less than 80 percent of any landscape area shall be covered by plant materials. Stone and other mulches, grass and other ground covers, pedestrian walks, other impervious surfaces or water surfaces may cover the remaining 20 percent of the landscape area.~~ 2) Landscape Plan shall provide a variety of ~~not contain any more than thirty three (33) percent of any single tree genus~~ genera. At least fifty (50) percent of tree plantings shall be species native to Michigan.
- (3) The general site topography and any natural landforms unique to the property shall be maintained and made part of the development whenever possible. ~~to reinforce the local and regional character.~~
- (4) All trees shall be located where ~~there is to allow~~ sufficient amount of soil volume and room for growth.
- (5) Landscape materials shall not obstruct access to or view of fire hydrants or other fire connections.
- (b) *Landscape materials.* The following landscape material requirements shall apply whenever compliance is required:
- (1) All landscape plant materials preserved or used pursuant to the provisions of this Code shall be healthy and compatible with local climate, site soils characteristics, drainage and available water supply.
  - (2) Deciduous canopy trees required by this Code shall not be less than 2.5 inches caliper diameter at breast height.
  - (3) Coniferous trees required by this Code shall be at least 6 feet in height when planted.
  - (4) All shrubs required shall be of a size generally known in the nursery industry as requiring a 5 gallon container.
- (c) ~~Irrigation and Maintenance standards.~~ The following ~~irrigation and~~ maintenance standards shall apply whenever compliance is required:
- (1) All landscape plant materials required by this Code shall be supplied with a watering system sufficient to maintain the plants in a healthy condition.
  - (2) All plant materials shall be maintained in a healthy growing condition ~~for a minimum of three years.~~ Dead and unsalvageable plant materials shall be replaced with the same size and variety of plant materials originally required on the site development plan within 30 days of the "Notice to Replace" issued by the City. Replacement may be delayed if the Planning Director determines that circumstances beyond the control of the property owner prevent timely replacement.
  - (3) ~~To protect oak trees and help prevent oak wilt, pruning oaks from April through November is prohibited.~~
  - (4) ~~Planting of trees that will grow above the height limits established in the airspace of the Cherry Capital Airport set forth in the Airport Layout Plan (ALP) and the Airport Approach Plan (AAP) or creates hazards to aviation shall be prohibited.~~

- (d) *Utilities.* All utility lines such as electric, telephone, cable television and other similar lines shall be installed underground. All **ground mounted** utility junction boxes **and** access boxes ~~and pad-mounted fixtures shall be appropriately screened with **landscape materials or an architectural screens** with coordination with the utility owner. ~~and out of public view whenever possible with landscape materials or an architectural screen.~~~~
- (e) *Existing vegetation.* The following standards shall apply to existing site vegetation whenever compliance is required:
- (1) Existing healthy trees ~~canopy, of an approved species listed on Appendix 3,~~ shall be preserved in accordance to the impervious surface percent by zoning district and incorporated into the ~~site final development plan.~~
  - (2) Existing healthy ~~non-invasive trees and shrubs~~ located within required water setbacks ~~and areas not required for development~~ shall be preserved. ~~Black Locust and Tree of Heaven trees or~~ Any tree listed on the State of Michigan Invasive Species list that has been identified by a Certified Arborist may be removed provided the stump and roots **are treated and** left in place. ~~and~~ For each invasive tree removed a replacement tree within the water setback area shall be planted.
  - (3) Trees to be preserved ~~shall~~ can be pruned to remove dead, diseased or irregular branching, but the crown form characteristic of the respective species shall be maintained.
  - (4) Thinning is permissible so long as the overall canopy percentage is not reduced.
  - (4) Preserved trees shall be protected with sturdy, highly visible barriers around the tree or group of trees ~~and the delineated tree protection area must be included in the site plan, at approximately the critical root zone or drip line and a tree preservation plan shall be submitted and approved by the Planning Director.~~
  - (5) **Preserved trees in** the tree protection area ~~The critical root zone of the tree shall remain undisturbed by cutting, filling or storage of materials and equipment during the development process.~~
  - (6) ~~Healthy, younger trees on development sites shall be preserved wherever possible to allow normal succession as older trees are lost.~~
- (f) *Minimum Tree Canopy.* Except **for parcels with two or less family dwellings, a** ~~all~~ **parcels** ~~properties~~ must meet the minimum tree canopy cover listed in the chart below whenever a new building or an expansion of an existing building is constructed. For the purposes of this ordinance any newly planted canopy tree 2.5 inch in caliper ~~diameter at breast height~~ will be credited as having a canopy of 500 square feet. **For parcels with two or less family dwellings, F**for every 4,000 square feet of parcel area, **at least 1 canopy tree must either exist or be planted on the parcel.** A planted tree must be a minimum of 1.5 inch caliper and in a **container not less than** 15 gallons in size. ~~is required.~~ Newly planted trees are recommended to be selected from the Tree Species Guidelines **document adopted by the**

Parks and Recreation Commission and found on the City's website on the Parks and Recreation Division page.

District	Minimum Tree Canopy Cover % (1) (2)(3)(4)
OS	40
RC	50
R-1a	50
R-1b	45
R-2	45
R-9	50
R-15	45
R-29	40
HR	40
C-1	40
C-2	35
C-3	30
C-4	10
D-1, D-2, D-3	30
T	20
GP	30
I	30
PR	This district no longer exists. Remove row
NMC-1	40
NMC-2	40 (3)
H-1	30

H-2	30
-----	----

\*For those lots that have 60% or more tree canopy, you must preserve 35% of the existing tree canopy.

(1) For parcels zoned RC, R-1a, R-1b, or R-2 with no more than two dwellings at least one canopy tree per 4,000 square feet of parcel area is required if the number of existing trees would not meet that requirement.

(2) If physical constraints or existing buildings make it impractical to meet the minimum tree canopy requirement, a property owner may shall donate \$300 to the City of Traverse City Tree Planting Fund. For each \$300 donated, the property owner will receive a tree canopy credit of 500 square feet.

(3) All properties zoned NMC-2 shall be calculated as being one parcel.

(4) For those lots that have 60% or more tree canopy, you must preserve 35% of the existing tree canopy.

#### 1372.04 - Screening requirements for parking areas.

Except for parcels with one or two dwellings, RC, R-1a, R-1b or R-2 zoning districts, parking areas shall be screened from streets, the alley and from neighboring residential properties whenever parking is developed according to the following:

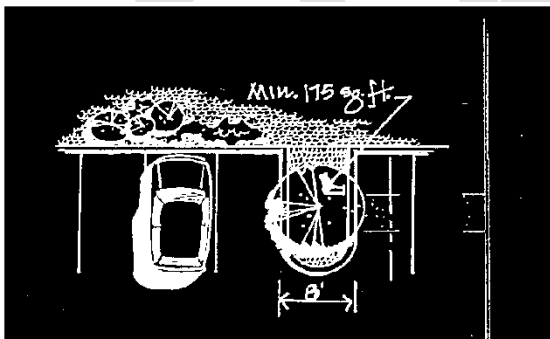
- (1) Unless waived by the Planning Director, screening shall be provided within a required setback area and the screening shall establish an opaque screen at least 5 feet in height as measured from the finished parking area grade where it adjoins the setback.
- (2) Required screening of parking areas shall be achieved through the use of a decorative masonry screen wall, earth berms, trees and landscape plant materials, either in combination or independently.
- (3) Specific screening elements may be relocated, redesigned or partially eliminated at the direction of the City Engineer to correct clear vision or other safety considerations.
- (4) Required screening may be interrupted to provide reasonable pedestrian or bicycle access to a property from a public right-of-way.

#### 1372.05 - Landscape development internal to a surface parking area.

- (a) Any use providing fewer than 20 parking spaces or less than 6,000 square feet of parking and maneuvering area shall comply with Section 1372.03 (Standards and Materials), Section 1372.04 (Screening Requirements for Parking Areas), and Section 1372.06 (Landscape Requirements for Street Rights-of-Way), as otherwise applicable. Where the

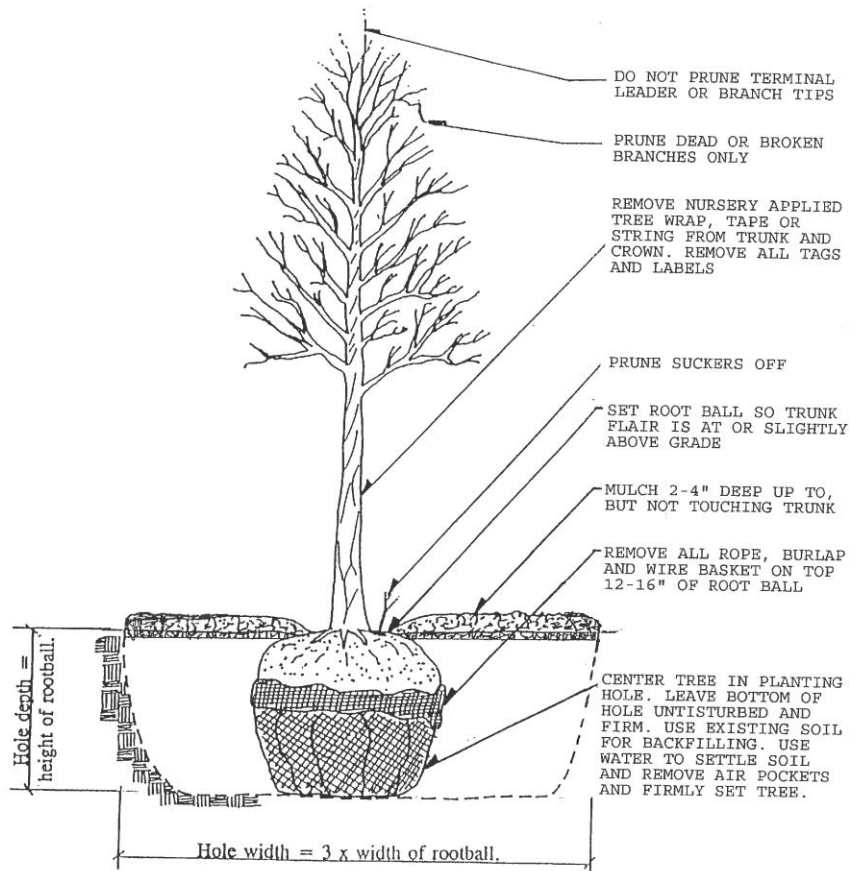
parking area is part of a development that requires a site plan, then the provisions of Section 1372.07 (Landscape Plan) also apply.

- (b) Any use providing or requiring 20 or more parking spaces or 6,000 square feet or more of parking and maneuvering area shall comply with the following standards ~~shall comply with~~ in Section 1372.03 (Standards and Materials), Section 1372.04 (Screening Requirements for Parking Areas), and Section 1372.06 (Landscape Requirements for Street Rights-of-Way), as otherwise applicable. Where the parking area is part of a development that requires a site plan, then the provisions of Section 1372.07 (Landscape Plan) also apply. In addition, the applicant:
- (1) The applicant shall supply internal landscaping not less than 8 percent of the off street parking area, including access and egress drives and such landscape areas.
  - (2) Within the boundaries of the parking area, the applicant shall provide not less than 1 deciduous canopy tree for every 10 parking spaces. The trees shall meet the size and species requirements for *Internal Parking Lot Trees* in the ~~City's approved Tree List~~ Tree Species Guidelines document found on the City's website on the Parks and Recreation Division page
  - (3) The required trees shall be planted within landscape islands that meet the following standards:
    - a. No required landscape area shall contain less than 175 square feet or provide any dimension of less than 8 feet and minimum of three times the root ball of amended soil volume that is non-compacted.





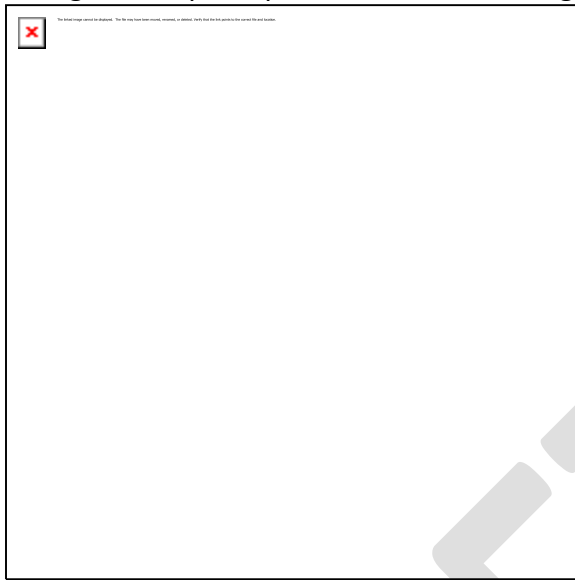
### TREE PLANTING DETAIL



- b. Landscaping within the landscape island shall meet the *Landscaping* definition in Section 1370.03.
- c. All perimeter and interior landscaped areas must have protective curbs along the edges. Curbs separating landscaped areas from parking areas may allow stormwater runoff to pass through them. Bollards or other protective barriers may be used at the front ends of parking spaces. Curbs may be perforated or have gaps or breaks. Trees must have adequate protection from car doors as well as car bumpers.
- d. Trees and landscape islands shall be distributed throughout the parking lot and shall be situated and designed to provide tree canopy throughout the parking lot.
- e. For the purpose of calculating the amount of required internal landscaping in any parking area, pedestrian walks are excluded if the walks are constructed using a separate and contrasting paving material which provides a durable surface.

1372.06 - Landscape requirements for street rights-of-way.

The following landscape requirements for street rights-of-way shall apply when compliance



is required:

- (1) With the approval of the **City Manager or his or her designee City Forester**, canopy trees shall be provided along the public street in a planting area provided in the treelawn with an average maximum distance of ~~50 feet~~ 40 feet in the C-4 District for the streets with formal urban streetscapes following areas: **Union Street from Grandview Parkway to 9<sup>th</sup> Street, Cass Street from Grandview Parkway to 8<sup>th</sup> Street, East Front from Union Street to Railroad Avenue, West Front to Division, and Lake Avenue from 8<sup>th</sup> Street to Union Street,** and 30 feet in all other areas-between trees. The trees shall be planted so as not to interfere with utilities, streets, sidewalks, street lights, sight distances, clear vision areas, and shall not be planted closer than 8 feet to fire hydrants.
- (2) All trees shall have a minimum size of 2.5 inches caliper diameter at breast height.
- (3) Subsequent or replacement trees shall be ~~conform to the type of existing trees in a given area, provided that, if any deviation is anticipated, it must be done~~ **planted** only with the permission of the **City Manager or his or her designee City Forester**. ~~In a newly planted area, only 1 type of tree may be used on a given street unless otherwise specified by the City Forester.~~
- (4) ~~Tree varieties which exhibit desirable characteristics such as full symmetrical form, deep non-invasive root systems and tolerance of drought and road salt should be utilized.~~
- (5) Trees shall be of sufficient size to be pruned to a 7 foot branching height with 1 main stem upon planting.
- (6) ~~If existing trees can~~ **shall** be preserved within the tree lawn, ~~the requirement for additional street tree plantings may be reduced or eliminated by the Planning Director.~~
- (7) **For each existing tree in the street right-of way, a 500 sq. ft. tree canopy will be credited.**

1372.07 - Landscape plan.

Except for parcels with one or two dwellings, where compliance is required, a landscape plan shall be required for any development requiring a site plan and no building or land use permit shall be issued until a landscape plan has been submitted to and approved by the Planning Director or his or her designee. All landscape plans shall utilize the required site plan as a base sheet and shall include the following additional information:

- (1) A tree survey, sealed by a landscape architect, surveyor, engineer or architect licensed to practice in the State of Michigan. The survey shall establish the location, species and assessment of the general health and condition of all trees with a 6 inch or greater diameter at breast height, their approximate height and spread or crown diameter in the disturbed area of the site.
- (2) A calculation verifying the minimum percentage of landscape area has been met and the percentage of landscape area dedicated to pedestrian ways and inorganic mulches.
- (3) A detailed description of either written or graphic form, indicating the applicant's plans to protect shield the existing trees to be protected from damage during site development and construction.
- (4) Contour lines at minimum 2 foot intervals shall be shown for sites with grades in excess of 6 percent slopes; otherwise, proposed and existing elevations at sufficient locations on the site to clearly show drainage patterns.
- (5) Description of the type of equipment and methods to be used to irrigate the required landscape areas.
- (6) Location, height, elevation/section and material of proposed screening walls, fencing, retaining walls and berms. Berms are to be delineated by 1 foot contours and designed with slopes not to exceed 1:3 gradients, a minimum of 2 feet between contour at the top of the berm, and slopes protected with sod, shrubs, or other types of natural ground covers.
- (7) Complete description of proposed and existing plant materials shown on the plan, including common and botanical names, quantities, container or caliper sizes, heights, spread and spacing at installation.
- ~~(8) A requirement of 1 tree (minimum 2.5 inches in caliper) per 500 square feet of area shall be required based on impervious surface by zoning district. Street trees may be counted to meet this requirement.~~

In order to be successful, plant materials need to be suited to the conditions found on a specific development site. The conditions are numerous and individual sites will likely exhibit multiple conditions.

Listed below are examples of varying conditions which dictate plant materials chosen for a development site.

1. SOIL CONDITIONS:

• Sandy soils	Light
• Loam soils	Medium
• Clay soils	Heavy

-

2. LIGHT CONDITIONS:

• Full sun	8 or more hours
• Partial sun/shade	3-8 hours
• Shade	3 or less hours

-

3. TOPOGRAPHICAL CONDITIONS:

• Low damp areas	Poor drainage common
• High areas	Exposure to winds common
• Retention/detention areas	Areas designed to accommodate varying amounts of water and serve to store plowed snow during winter months

-

4. ENVIRONMENTAL CONDITIONS:

- Proximity to high traffic streets

- ~~Potential damage from snow removal~~
- ~~Salt tolerance~~
- ~~Proximity to parking areas~~
- ~~Proximity to building exhaust~~

5. ~~ZONE HARDINESS OF PLANT MATERIALS:~~

~~The City's location adjacent to Grand Traverse Bay provides an opportunity to utilize plant species that would not be hardy further inland.~~

6. ~~PHYSICAL CHARACTERISTICS OF PLANT MATERIALS:~~

~~Species selection will be limited for some sites, e.g. nut and fruit bearing trees would not be suitable for parking areas, over pedestrian walkways and the areas to buildings, due to the potential for damage to vehicles and the messy litter. Individual growth habit of plant materials must be considered to assure the selected plant will fit the confines of the planting bed.~~

~~The following is a partial list of plant materials which is preferred to exotic plants when the location is visible from public rights of way or adjacent to areas of natural vegetation. This list is not necessarily a guideline for interior courtyards and single family residential development.~~

WET TO MEDIUM MOISTURE SITES:

<del>LARGE TREES:</del>	
<del>• Abies balsamea</del>	<del>Balsam Fir</del>
<del>• Acer rubrum</del>	<del>Red Maple</del>
<del>• Acer saccharum</del>	<del>Sugar Maple</del>
<del>• Fraxinus nigra</del>	<del>Black Ash</del>
<del>• Larix laricina</del>	<del>Larch</del>
<del>• Picea mariana</del>	<del>Black Spruce</del>
<del>• Pinus strobus</del>	<del>White Pine</del>

<del>• Prunus serotina</del>	Black Cherry
<del>• Salix nigra</del>	Black Willow
<del>• Tilia americana</del>	Basswood
SMALL TREES:	
<del>• Amelanchier laevis</del>	Serviceberry
<del>• Betula lenta</del>	Sweet Birch
<del>• Betula nigra</del>	River Birch
<del>• Cornus alternifolia</del>	Alternate Leaved Dogwood
<del>• Thuja occidentalis</del>	White Cedar
LARGE SHRUBS:	
<del>• Aronia arbutifolia</del>	Red Chokeberry
<del>• Cephalanthus occidentalis</del>	Buttonbush
<del>• Cornus racemosa</del>	Gray Dogwood
<del>• Cornus sericea</del>	Redosier Dogwood
<del>• Hamamelis virginiana</del>	Common Witchhazel
<del>• Ilex verticillata</del>	Michigan Holly
<del>• Sambucus canadensis</del>	American Elderberry
<del>• Vaccinium corymbosum</del>	Highbush Blueberry
<del>• Viburnum dentatum</del>	Arrowwood

<del>• Viburnum lentago</del>	Nannyberry
<del>• Viburnum trilobum</del>	American Cranberry Bush
<b>SMALL SHRUBS:</b>	
<del>• Juniperus communis</del>	Common Juniper
<del>• Potentilla fruticosa</del>	Bush Cinquefoil
<del>• Taxus canadensis</del>	Canada Yew

-

DRY, SANDY SITES:

<b>LARGE TREES:</b>	
<del>• Abies balsamea</del>	Balsam Fir
<del>• Acer saccharum</del>	Sugar Maple
<del>• Fagus grandifolia</del>	American Beech
<del>• Fraxinus americana</del>	White Ash
<del>• Pinus resinosa</del>	Red Pine
<del>• Quercus alba</del>	White Oak
<del>• Quercus rubra</del>	Red Oak
<b>SMALL TREES:</b>	
<del>• Amelanchier laevis</del>	Serviceberry
<del>• Crataegus crus-galli</del>	Cockspur Hawthorn

—● Crataegus mollis	Downey Hawthorn
—● Crataegus punctata	Dotted Hawthorn
—● Crataegus viridis	Green Hawthorn
—● Juniperus virginiana	Eastern Red Cedar
—● Malus ioensis	Prairie Crab
—● Morus rubra	Red Mulberry
—● Ostrya virginiana	Ironwood
—● Prunus pensylvanica	Pin Cherry
—● Prunus virginiana	Choke Cherry
—● Rhamnus carolinianus	Carolina Buckthorn
—● Sorbus americana	Mountain Ash
—● Viburnum lentago	Nannyberry
LARGE SHRUBS:	
—● Corylus americana	American Filbert
—● Hamamelis virginiana	Common Witchhazel
—● Ilex verticillata	Michigan Holly
—● Rhus glabra	Smooth Sumac
SMALL SHRUBS:	
—● Ceanothus americanus	New Jersey Tea



<del>• Dievilla Ionicera</del>	<del>Bush Honeysuckle</del>
<del>• Rubus allegheniensis</del>	<del>Blackberry</del>

The effective date of this Ordinance is the \_\_\_\_\_ day of \_\_\_\_\_, 2019.

I hereby certify the above ordinance amendment was introduced on \_\_\_\_\_, 2019, at a regular meeting of the City Commission and was enacted on \_\_\_\_\_, 2019, at a regular meeting of the City Commission by a vote of Yes: \_\_\_\_ No: \_\_\_\_ at the Commission Chambers, Governmental Center, 400 Boardman Avenue, Traverse City, Michigan.

\_\_\_\_\_  
James Carruthers, Mayor

\_\_\_\_\_  
Benjamin C. Marentette, City Clerk

# Draft Tree Regulations



# Purpose

*In part to:*

Purify the air, protect ground and surface waters

Safeguard property values and encourage continued community investment.

Enhance the natural beauty and well being of the community



Will my property need to comply with the tree regulations?

*Yes. All properties will need to comply with a few exceptions.*

# What properties are exempt?

TCAP and TBAISD Schools

Cherry Capital Airport\*

US Coast Guard

State and Federal Highways

Grand Traverse Commons is regulated by a different zoning ordinance.

Morgan Farms is regulated by an Order Granting (Planned Unit Development)

\* Aeronautical Purpose

Land clearing requires a permit!



Land clearing of more than 4,000 square feet or more woody vegetation requires a permit.



Cutting down 10 or more trees 6 inches in diameter requires a permit.





Removing two or more 24+ inch caliper trees  
requires a permit



Planning Commission must review land clearing requests where 20,000 square feet or more of land is proposed to be cleared.



# Requirements for Single and Two Family Parcels



# Single and Two Family Parcels



One tree required for every 4,000 square feet of lot area

# Single and Two Family Parcels

(4,922 parcels)

← 1.5 inch caliper

← 15 gallon container

Existing trees count towards the tree requirement.  
Most parcels will need to have at least 2 trees.

# Ordinance Trigger Points (Single and Two Family Parcels)

1. Constructing a new house.
2. Building an addition.
3. Building an accessory building (over 200 square feet)
4. Clearing land.



# One and Two Family Waterfront Parcels

Trees within 50 feet of Boardman Lake or Grand Traverse Bay shall be preserved.



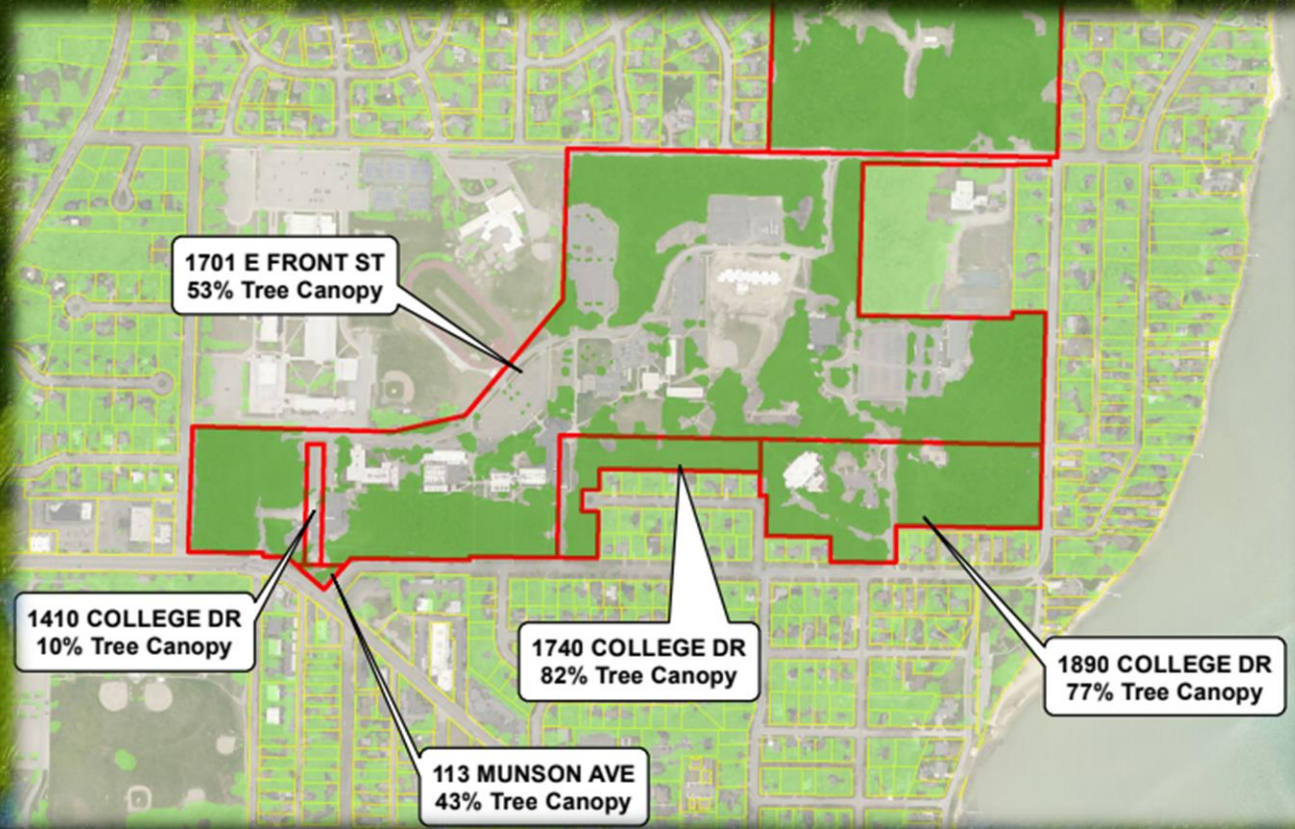
Black Locust and Tree of Heaven trees may be removed that have been identified as such by a Certified Arborist.

# Requirements for Multi-Family, Commercial and Industrial, Institutional Parcels



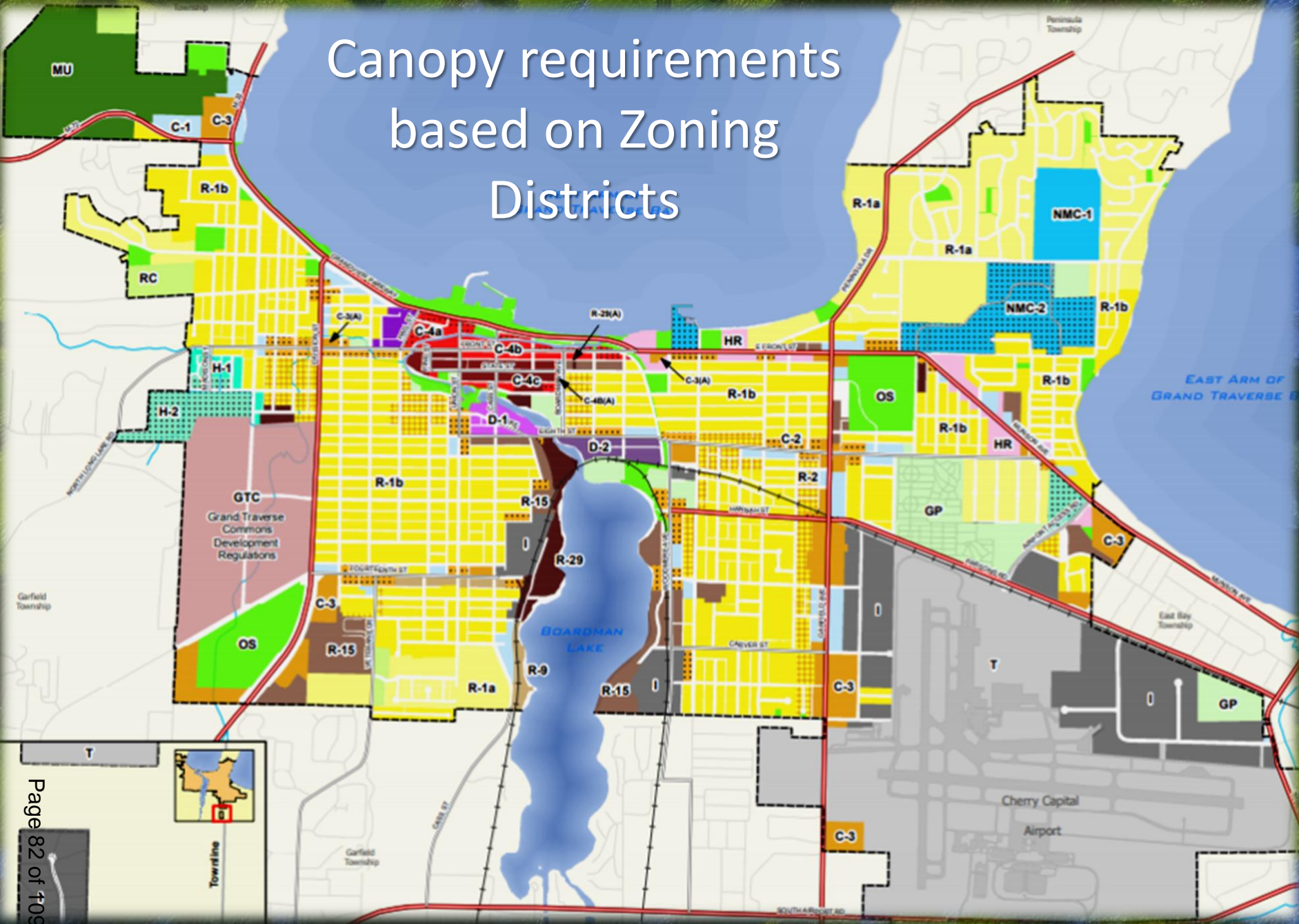


# Requirements for Multi-Family, Commercial and Industrial, Institutional Parcels



Minimum Tree Canopy Requirements Apply

# Canopy requirements based on Zoning Districts



# Parks zoned OS (Open Space)

40% minimum tree canopy



# Multiple Family Zones (R-9, R-15, R-29)

40-50% minimum tree canopy



# Commercial Zones (C-1, C-2, C-3 and D)

30-40 % minimum tree canopy



# Downtown Zoning (C-4)

10% minimum tree canopy



# Industrial District

## 30 % Minimum Tree Canopy



# Northwestern Michigan (NMC)

40 % Minimum Tree Canopy





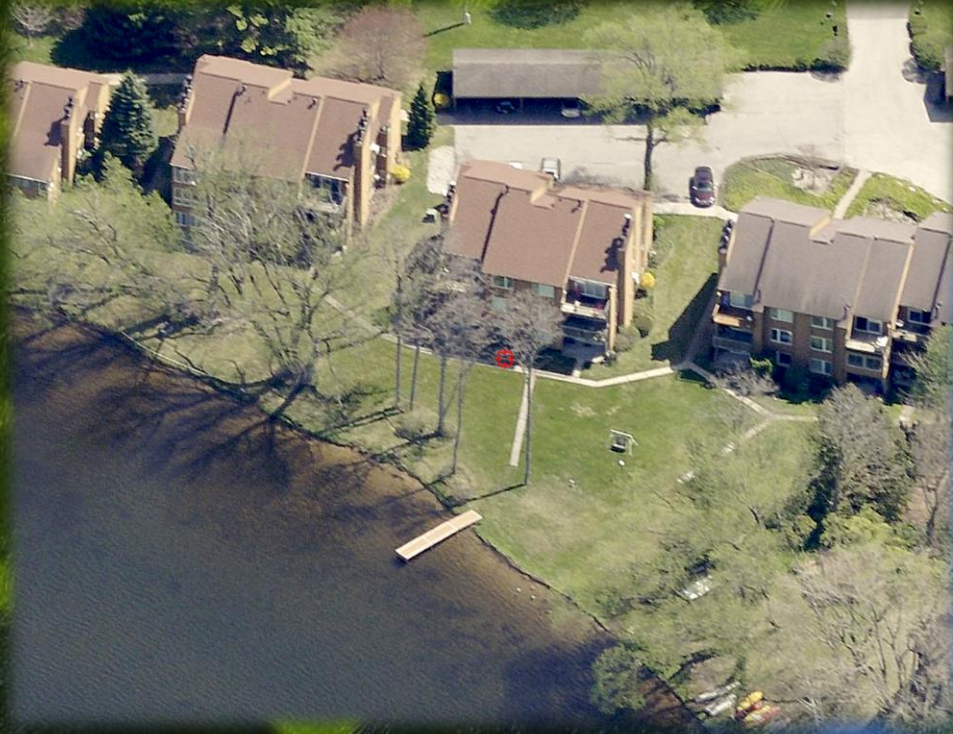
# Hospital Districts (H-1, H-2)

30 % minimum tree canopy



# Waterfront Properties

Trees within 50 feet of Boardman Lake or Grand Traverse Bay shall be preserved. 10-25 feet from Boardman River



Black Locust and Tree of Heaven trees may be removed that have been identified as such by a Certified Arborist.

# Wooded Parcels (not 1 and 2 dwelling parcels)



For parcels that have 60% or more tree canopy, 35% of the existing tree canopy must be preserved.



44 North

E Carter Rd

Tra

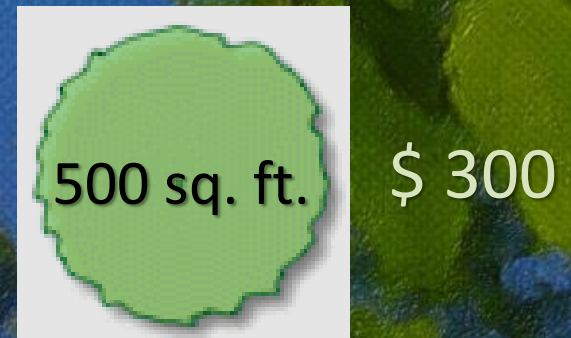
72

S West Bay Shore Dr

# Tree donation option

If impractical to meet the minimum tree coverage, a property owner may donate money to the City Tree Planting Fund.

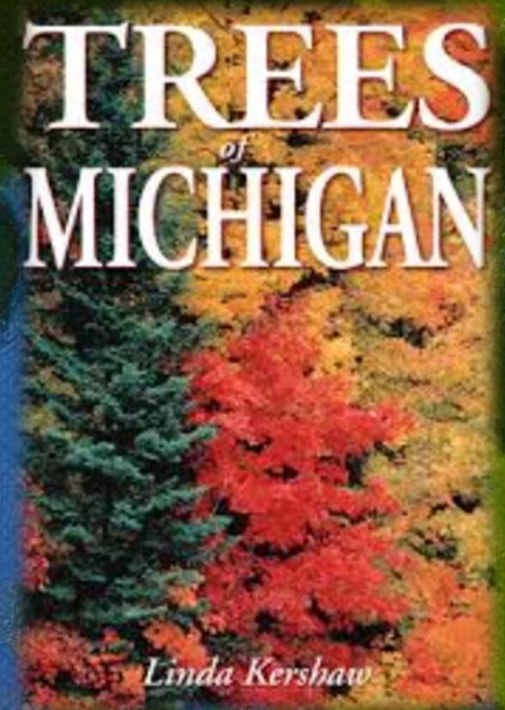
Each canopy tree donated receives a 500 square foot canopy credit.



# General Performance Standards

At least 50% of the trees shall be native to Michigan

There shall be a variety of tree species planted



# Ordinance Trigger Points for Multi-family Commercial, Industrial, Institutional

1. A new building
2. An addition to a building
3. Building or expanding a parking lot.



# Street Trees



For commercial, industrial and multifamily projects, one street tree is required for every 30 feet



# Downtown Streets



On average at least 1 tree for every 40 feet (two parking spaces)

# Street Trees along Federal and State Highways



Highway projects are exempt, but not developments along the highway

# Street Trees



Permission from City Parks Department is required.

A painting of a dense green forest canopy with blue sky visible through the leaves. The brushstrokes are thick and textured, creating a sense of depth and movement. The colors range from dark, almost black greens to bright, vibrant yellows and blues.

# Street Trees

Permission from City Parks Department is required.

# Tree Maintenance



Plant materials are required to be maintained in a healthy condition .

# Tree Guideline

**Desired trees** (natives of our region, cultivars of regional natives)      WHITE OAK

**Acceptable trees** (non-natives that are well suited for our region and are unlikely to create a nuisance)  
GINKGO

**Prohibited trees** (trees that have been identified as invasive)      TREE OF HEAVEN

Guideline will be published on the City website

# Essential Services



# Chapter 1028 – Trees and Shrubs

## Authority of City Manager

The City Manager shall have full authority over all trees and shrubs planted in public areas of the City, including the authority to adopt procedural regulations as may be required.

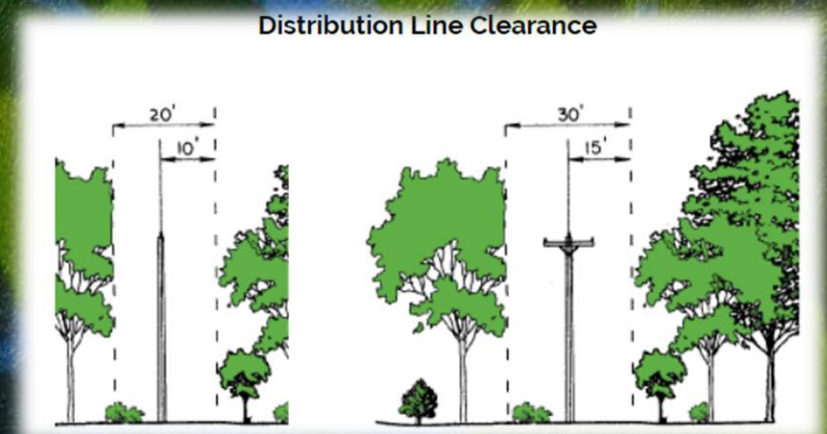
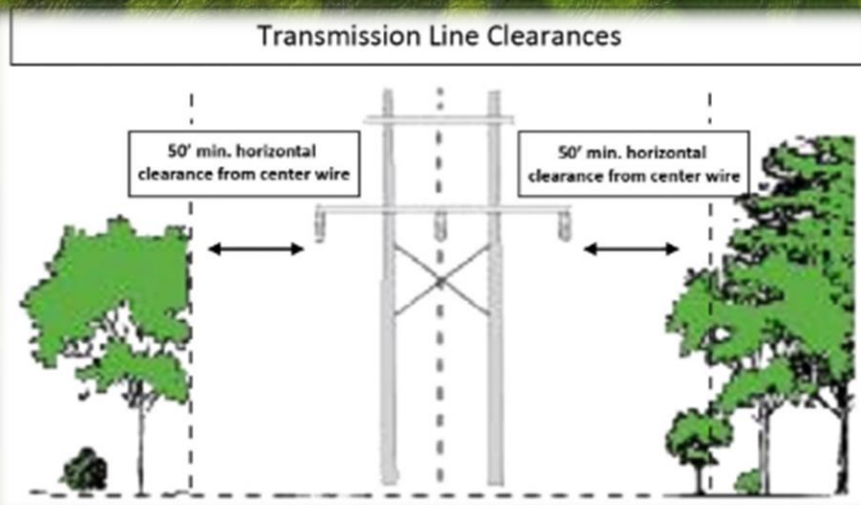
The City Manager shall set reasonable conditions for the granting of a permit in accordance with this chapter



# Chapter 1028 – Trees and Shrubs

If the action includes removal, the permit shall specify replacement as required under this chapter or give reason why replacement is not necessary.

Planning Commission would need to approve site plans for utility line projects where 20,000+ square feet of land clearing is proposed.



*Also Chapter 1028 applies.*

# Pruning Trees



No pruning of oak trees between April and November

Planning Commission would need to approve site plans for developments where 20,000+ square feet of land clearing is proposed.



The Ticker Photograph



44 North Photograph

# Next Steps

1. Staff will revise the draft regulations.
2. Planning Commission reviews new draft.
3. Planning Commission sets public hearing date.
- 4. Public Hearing.**
5. Planning Commission makes recommendation.
6. City Commission may enact revised regulations.