Honeywell

Americas M&V Services

Town of Mamaroneck, NY

Energy Cost Avoidance Report

Year 2 Performance Period

September 2016 – August 2017

Helping customers manage energy resources to improve financial performance

Measurement & Verification Services

Honeywell is pleased to provide this comprehensive report of your energy consumption. This report was processed using an industry-standard program based on proven and accepted engineering formulas for energy conservation and analysis.

Service Contract Number:	40143657
Baseline Period:	January 2013 - December 2013
Guarantee Period:	September 2015 - August 2035
Guarantee Term:	20 Years
Presented To:	Town of Mamaroneck, NY
Report Preparation by:	Americas M&V Services Team Gary McAvoy (M&V Specialist) Joel Bruedigam (Energy Analyst)
Report Creation Date:	December 18, 2017

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1.0 Overview

1.1 Executive Summary

This report documents the measurement and verification activities for the Town of Mamaroneck, NY energy retrofit project for Year 2 of the performance phase (September 2016 – August 2017). It serves to reconcile the guaranteed savings against the measured savings, using methodology outlined in the contract.

The total guarantee term for this project is 20 years, with the guaranteed savings schedule shown below:

Year	Energy	Operational	Total
1	$189,377	$101,030	$290,407
2	$196,005	$104,566	$300,571
3	$202,865	$108,225	$311,090
4	$209,965	$112,013	$321,978
5	$217,314	$115,934	$333,248
6	$224,920	$119,991	$344,911
7	$232,792	$124,191	$356,983
8	$240,940	$128,538	$369,478
9	$249,373	$133,037	$382,410
10	$258,101	$137,693	$395,794
11	$267,135	$142,512	$409,647
12	$276,484	$147,500	$423,984
13	$286,161	$152,663	$438,824
14	$296,177	$158,006	$454,183
15	$306,543	$163,536	$470,079
16	$317,272	$169,260	$486,532
17	$328,377	$175,184	$503,561
18	$339,870	$181,315	$521,185
19	$351,765	$187,661	$539,426
20	$364,077	$194,230	$558,307
Total	$5,355,513	$2,857,085	$8,212,598

Year 2 Results

Energy Cost Avoidance:	$155,895
Operational Savings:	$104,566
Total Cost Avoidance:	$260,461
Annual Guarantee:	$300,571
Excess/Shortfall:	($40,110)
Percentage of Guarantee:	87%

Year 2 Results by M&V Option

	Actual	Target	Excess/ (Shortfall)
Option A Cost Avoidance - Electrical:	$131,782	$130,830	$952
Option C Cost Avoidance – Electrical:	$245	$23,781	($23,537)
Option C Cost Avoidance – Natural Gas/Fuel Oil:	$23,869	$41,394	($17,525)
Operational Savings:	$104,566	$104,566	$0
Total Cost Avoidance:	$260,461	$300,571	($40,110)

Cumulative Results

Time Period		Total Cost Avoidance	Annual Guarantee	Excess/ (Shortfall)
Install		$0	$0	$0
Year 1	09/15 - 08/16	$258,226	$290,407	($32,181)
Year 2	09/16 - 08/17	$260,461	$300,571	($40,110)
TOTAL		**$518,687**	**$590,978**	**($72,291)**

1.2 Prime Concerns

Ice Rink – Remote and on-site connectivity to BMS Front End

During the Year 2 performance period, remote and on-site connection to the energy management system still has issues with slow connection; which has limited M&V to properly assess equipment scheduling, Remote connection is done through the Cisco VPN Client software. Ice Rink Manager, Rob Lunde, has also been struggling with accessing the BMS (Building Management System) directly from his front end. Connection speed so slow that we would be unable to navigate to other equipment or schedules. To date, a fast connection cannot be established and troubleshooting is continuing with the IT Dept.

Ice Rink – Gas Infrared Heating

One manual controlled thermostat provides heat to a large bank of infrared heaters for the bleachers in the Ice arena. Heat is being provided in sections of the bleachers where there are no spectators. However, thermostats are locked at 55 Deg F and Rob Lunde has maintained this thermostat setting, with a lockbox, to prevent overrides.

Fire Dept. HQ's – Remote and on-site connectivity to BMS Front End

During the Year 2 performance period, remote connection to the energy management system does not work; limiting M&V to remotely assess equipment scheduling, temperature status, and occupied / unoccupied setpoints. Currently, thermostats are locked out and cannot be changed manually. Remote connection is done through the Cisco VPN client software. However, individual walk-through of thermostats showed settings in compliance with contract.

1.3 M&V Activities

As part of the ongoing M&V activities for Performance Year 2, a site visit was conducted on June 12th 2017. Remote and on-site connectivity to both the Ice Rink and the Fire Dept. HQ's to date have been limited. The IT Department has not been able to establish consistently clean remote connections.

The site visit results can be found in ***Appendix 5.1: M&V Site Visit.***

2.0 Summary

2.1 Energy Conservation Measures Overview

Energy Conservation Measures by Location

	Town Center		Hommocks Ice Rink		Weaver Street Fire HQ		Chatsworth Avenue Parking Lot	Street Lighting
	Electric	Gas	Electric	Gas	Electric	Gas	Electric	Electric
ECM #1 Lighting Retrofit	Option A	Option C	Option C	Option C	Option A	Option C	Option A	
ECM #2 Street Lighting								Option A
ECM #3 Boiler Plant Upgrades		Option C						
ECM #4 Ice Rink Upgrades			Option C	Option C				
ECM #5 Building Management System Upgrades		Option C	Option C	Option C		Option C		
ECM #6 Building Envelope Improvements		Option C		Option C		Option C		
ECM #7 Pipe Insulation		Option C		Option C				
ECM #8 Window Film	Option A	Option C			Option A	Option C		
ECM #9 Replace Condensing Units	Option A							

Selected Energy Rates

The selected energy rates shown below in Table 1 were used to calculate the cost avoidance of the ECMs installed in accordance with the contract.

	Electric		Natural Gas	Fuel Oil
Location	/kWh	$/kW	$/Therm	$/Gallon
Town Center	$0.061	$24.16	$4.28	$3.58
Hommocks Ice Rink	$0.059	$24.49	$1.18	
Weaver Street Fire HQ	$0.060	$24.33	$1.29	
Chatsworth Avenue Parking Lot	$0.054	$25.40		
Street Lighting	$0.243			

2.2 M&V Methodology

Energy conservation measures (ECM) include the installation of equipment or systems for the purpose of reducing energy use and/or costs. The cost of ECM implementation is recovered through the savings created by the ECM. The Federal Energy Management Program (F.E.M.P) of the U.S. Department of Energy and its Measurement and Verification Guidelines for Federal Energy Projects classify measurement and verification approaches as Options A, B, C, and D. The F.E.M.P. Guideline is based on the International Performance Measurement and Verification Protocol (I.P.M.V.P.).

This project uses Option A and C methodologies, outlined below:

Option A - Retrofit Isolation (Key Parameter Measurement): Determine savings by field measurement of key performance parameter(s) critical to the ECM performance. Measurement frequency ranges from short-term to continuous. Parameters not selected for field measurement are estimated using historic data, manufacturer specifications, or engineering judgment, supported by documentation. Savings are calculated using engineering calculation of baseline and reporting period energy from the key operating parameter(s) measurements and estimated values.

Option C - Whole Facility: Determine savings by measuring energy use at the whole facility or sub-facility level. Continuous measurements of the entire facility's energy use are taken throughout the reporting period to identify the effects of the energy project. Energy use before and after the retrofit project is compared to determine savings.

List of Covered Facilities and ECMs by M&V Methodology

Location	ECMs	M&V Methodology
Town Center	• ECM #1 Lighting Retrofit • ECM #8 Window Film • ECM #9 Replace Condensing Units	Electric: Option A
Town Center	• ECM #1 Lighting Retrofit • ECM #3 Boiler Plant Upgrades • ECM #5 Building Management System Upgrades • ECM #6 Building Envelopment Improvements • ECM #7 Pipe Insulation • ECM #8 Window Film	Fuel: Option C
Hommocks Ice Rink	• ECM #1 Lighting Retrofit • ECM #4 Ice Rink Upgrades • ECM #5 Building Management System Upgrades	Electric: Option C

Location	ECMs	M&V Methodology
Hommocks Ice Rink	• ECM #4 Ice Rink Upgrades • ECM #5 Building Management System Upgrades • ECM #6 Building Envelopment Improvements • ECM #7 Pipe Insulation • ECM #8 Window Film	Fuel: Option C
Weaver Street Fire HQ	• ECM #1 Lighting Retrofit • ECM #8 Window Film	Electric: Option A
Weaver Street Fire HQ	• ECM #1 Lighting Retrofit • ECM #5 Building Management System Upgrades • ECM #6 Building Envelopment Improvements • ECM #8 Window Film	Fuel: Option C
Chatsworth Avenue Parking Lot	• ECM #1 Lighting Retrofit	Electric: Option A
Street Lighting	• ECM #2 Street Lighting	Electric: Option A

2.3 Reconciliation of Guaranteed Savings

Guaranteed Savings will be determined in accordance with the methodology(s), operating parameters, formulas, and constants described below and/or defined in Attachment G of the Contract.

Option A

For reconciliation of Guarantee Savings employing the Option A method consistent with I.P.M.V.P and/or F.E.M.P., for each ECM, Honeywell will employ an M&V plan which may be comprised of any or all of the following elements:

- Pre-retrofit model of energy consumption or demand
- Post-retrofit measured energy consumption
- Post-retrofit measured demand and time-of-use
- Post-retrofit energy and demand charges
- Stipulated Values

The value of the energy savings will be derived from the measured data and engineering formulae included in the Contract and the applicable energy charges as defined in the Contract.

Option C

For reconciliation of Guarantee Savings employing the method of utility bill analysis consistent with F.E.M.P. Option C (Electric savings at Hommocks Ice Rink and Fuel savings at Town Center, Hommocks Ice Rink and Weaver Street Fire HQ):

Energy usage for the Facilities for such Guarantee Year will be summarized and compared with the adjusted Baseline Period usage for the Facilities through the use of energy accounting software (Metrix).

Option C meters tracked in Metrix are tuned against weather (Heating and Cooling Degree Days in this project) to calculate a baseline regression model equation showing the effect of Heating and Cooling Degree Days and number of Billing Days on the expected usage (electric, natural gas or fuel oil). The number of Heating Degree Days (HDD) and Cooling Degree Days (CDD) and billing days for each individual billing period is used to calculate the expected usage based on those HDD, CDD and billing period to create the adjusted baseline.

The difference between the Adjusted Baseline Period energy usage and the Guarantee Year energy usage will be the Energy Avoidance. The difference between the Adjusted Baseline Period energy usage multiplied by the applicable energy rate as defined in the Contract, and the Guarantee Year energy usage multiplied by the applicable energy rate, as defined in the Contract, will be used to calculate the Energy Cost Avoidance. Energy cost avoidance may also include, but are not limited to, savings from demand charges, power factor correction, taxes, ratchet charges, rate changes and other utility tariff changes that are reduced as a result of the Honeywell involvement. An energy Baseline was specified in Attachment G of the Contract for the purpose of utility bill analysis. Adjustments will be derived from baseline variables.

Baseline Variables

There are variables affecting consumption which warrant adjustment to the baseline, including billing days, weather, cost, runtime and other miscellaneous adjustments. The contract allows the adjustment of the following variables:

Billing Days Adjustment - Typically utility companies do not bill for the same number of days each month. An adjustment is made when the number of days in a pre-installation billing period does not equal the number of days in the corresponding post-installation billing period.

Weather Adjustment - Energy consumption is often weather-related. A regression analysis is performed to identify the relationship between historic meter performance and weather, denoted by heating or cooling degree-day variables. The analysis results in a regression model utilized in calculating the baseline, adjusted for the weather difference between the pre- and post-installation period.

Cost Adjustment - Utility company rate schedules are generally used to calculate the cost of energy consumption. These rates may change frequently. The applicable utility rate schedule as determined by the performance contract is used for cost calculation in the current review period. This schedule achieves an accurate comparison of the pre- and post-installation period cost of energy.

Runtime Adjustment - A building's hours of operation (runtime) typically vary and will affect usage. Set hours of operation are agreed upon on a building-by-building basis and documented in the contract. Review period runtime is tracked on a monthly basis and compared to the agreed upon operating hours. Adjustments can be made in the event actual hours of operation exceed agreed upon hours.

Miscellaneous Adjustments - A change in consumption will occur if the square footage or occupancy levels of the facility change or if the facility adds, deletes, or changes equipment that affects building load. Savings lost or gained by the change can be calculated by standard engineering formulas.

2.4 Energy Cost Avoidance by Meter with NO BL Adjustments

Year 2

Hommocks Ice Rink	Meter #			Actual	Guarantee	Excess/ (Shortfall)	Excess/ (Shortfall)	Reason for Miss
Opt. C - Electric	7441666			$13,902				
Opt. C - Electric	7247659			$6,035				
Opt. C - Electric	7700793			($19,693)				
			Option C Electric Meter	$245	$23,781	($23,537)	-99%	
Opt. C - Gas	3521146	Natural Gas	Option C Gas Meter	$8,646	$19,087	($10,441)	-55%	
			BuildingTotal	$8,891	$42,869	($33,978)	-79%	
Mamaroneck Town Center		**ECM #**	**ECM**					
Opt. A - Electric	74883391	1	Lighting Upgrades	$12,924	$12,423	$501	4%	
Opt. A - Electric	76642401	8	Window Film	$220	$220	$0	0%	
Opt. A - Electric	76642401	9	Replace Condensing Units	$871	$882	($11)	-1%	
Opt. C - Gas / Oil	4663/A.1620.4005		Natural Gas / Fuel Oil	$15,893	$21,624	($5,732)	-27%	
			Building Total	$29,908	$35,150	($5,242)	-15%	
			Option A	$14,015	$13,525	$490	4%	
			Option C	$15,893	$21,624	($5,732)	-27%	
Weaver Street Fire HQ		**ECM #**	**ECM**					
Opt. A - Electric	7826526	1	Lighting Upgrades	$3,339	$3,024	$315	10%	
Opt. A - Electric	7826526	8	Window Film	$71	$71	$0	0%	
Opt. C - Gas	3692272		Natural Gas	($670)	$682	($1,352)	-198%	
			Building Total	$2,741	$3,778	($1,037)	-27%	
			Option A	$3,410	$3,096	$315	10%	
			Option C	($670)	$682	($1,352)	-198%	
Chatsworth Ave Parking Lot		**ECM #**	**ECM**					
Opt. A - Electric	5909141	1	Lighting Upgrades	$4,800	$4,712	$88	2%	
			Total	$4,800	$4,712	$88	2%	
			Option A	$4,800	$4,712	$88	2%	
Street Lighting		**ECM #**	**ECM**					
Opt. A - Electric	4515450	2	Lighting Upgrades	$109,556	$109,497	$59	0%	
			Total	$109,556	$109,497	$59	0%	
			Option A	$109,556	$109,497	$59	0%	
			GRAND TOTAL	$155,895	$196,005	($40,110)	-20%	
			Option A	$131,782	$130,830	$952	1%	
			Option C	$24,114	$65,175	($41,061)	-63%	

3.0 Cost Avoidance Calculations

3.1 Cost Avoidance Calculations

3.1.1 Option A Avoidance

Option A was selected to calculate electrical energy avoidance for all ECMs, except for electric at Hommocks Ice Rink and Fuel avoidance at Town Center, Hommocks Ice Rink and Weaver Street Fire HQ. The actual performance is based on verification of an accurate baseline, equipment installation/type and operational guidelines, engineering calculations, and/or customer sign-off. Honeywell provides this one-time determination of the quantity of energy avoidance for the first year of the guarantee only. After the ECMs potential-to-save has been verified, Honeywell stipulates the quantity of cost avoidance or determines the cost avoidance from engineering calculations and measurements of specific variables.

The cost avoidance calculations are summarized by ECM, with the actual calculations provided in the Appendix section of the Year 1 Cost Avoidance Report.

The calculation of energy cost avoidance is based upon the utility rate paid during the Guarantee Year, the Baseline Period utility rate, or whichever provides higher cost avoidance.

3.1.1.1 ECM 1 – Lighting Retrofit

Honeywell has implemented the lighting retrofit project in accordance with an in-depth lighting audit, as detailed in the line by line scope. The following facilities were included:

- Town Center
- Hommocks Ice Rink
- Chatsworth Avenue Parking Lot
- Weaver Street Fire HQ

Measurement and Verification of this ECM uses Option A methodology for Electric (with stipulated burn hours) to determine energy and cost avoidance. A post-retrofit as-built audit was conducted and used to calculate the verified savings for the Option A savings for this ECM. Utility bill data is used to calculate the Option C savings at Hommocks Ice Rink during the performance phase. As-builts, measurements and calculations for this ECM can be found in ***Appendix 5.2: Lighting As-Builts in the Year 1 Energy Cost Avoidance Report.***

Lighting Retrofit Year 2 Verified Savings

** The electric savings for Hommocks Ice Rink are verified using Option C methodology.*

Building	Electric energy savings (kWh/yr)	Electric demand savings (kW/yr)	Total Electric savings, Year 2 ($/yr)	Target	Excess/ (Shortfall)
Town Center	74,328	28	$12,924	$12,423	$501
Weaver Street Fire HQ	21,735	6	$3,339	$3,024	$315
Chatsworth Avenue Parking Lot	42,945	6	$4,800	$4,712	$88
Total savings	**139,008**	**40**	**$21,063**	**$20,159**	**$904**

3.1.1.2 ECM 2 – Street Lighting

Honeywell has implemented the lighting retrofit project in accordance with an in-depth lighting audit, as detailed in the line by line scope.
Please note: changes were made by Town Highway Dept., including changes to illumination percentages, after successful completion of project. The numbers shown in the table below and the final "as-builts" are reflective of what the savings would have been had no changes taken place after project implementation.

	Electric energy savings (kWh/yr)	Total Electric savings, Year 2 ($/yr)	Target	Excess/ (Shortfall)
Street Lighting (Town Wide)	333,946	$81,224	$81,196	$28
Street Lighting Control Savings (Sentinel)	116,483	$28,332	$28,301	$31
Total savings	**450,429**	**$109,556**	**$109,497**	**$59**

Measurement and Verification of this ECM uses Option A methodology for Electric to determine energy and cost avoidance. A post-retrofit as-built audit was conducted and used to calculate the verified savings for the Option A savings for this ECM. As-builts, measurements and calculations for this ECM can be found in ***Appendix 5.3: Street Lighting As-Builts, Measurements & Calculations in the Year 1 Energy Cost Avoidance Report.***

3.1.1.3 ECM 9 – Replace Condensing Units (Town Center)

Honeywell replaced 23 Lennox units.

	Electric energy savings (kWh/yr)	Total Electric savings, Year 2 ($/yr)	Target	Excess/ (Shortfall)
Town Center	14,270	$871	$882	($11)
Total savings	**14,270**	**$871**	**$882**	**($11)**

Measurement and Verification of this ECM uses Option A methodology for Electric. As-builts, measurements and calculations for this ECM can be found in ***Appendix 5.4: Replace Condensing Units As-Builts, Measurements & Calculations in the Year 1 Energy Cost Avoidance Report.***

3.1.2 Option C Avoidance

Option C was selected to calculate fuel energy avoidance at Town Center, Hommocks Ice Rink and Weaver Street Fire HQ. Option C was also selected to calculate electric use avoidance for Hommocks Ice Rink. The actual utility bill performance is calculated each year of the guarantee.

The calculation of energy cost avoidance during the performance phase is based upon the utility rate paid during the Guarantee Year or the Baseline Period utility rate, whichever provides higher cost avoidance as per the contract agreement.

The meter details generated by Metrix can be found in ***Appendix 5.5: Option C Meter Details***

Location	ECMs
Town Center	• ECM #1 Lighting Retrofit • ECM #3 Boiler Plant Upgrades • ECM #5 Building Management System Upgrades • ECM #6 Building Envelopment Improvements • ECM #7 Pipe Insulation • ECM #8 Window Film
Hommocks Ice Rink	• ECM #1 Lighting Retrofit • ECM #4 Ice Rink Upgrades • ECM #5 Building Management System Upgrades • ECM #6 Building Envelopment Improvements • ECM #7 Pipe Insulation • ECM #8 Window Film
Weaver Street Fire HQ	• ECM #1 Lighting Retrofit • ECM #5 Building Management System Upgrades • ECM #6 Building Envelopment Improvements • ECM #8 Window Film

3.1.3 Operational Cost Avoidance

The Operational Cost Avoidance is agreed to and stipulated per Schedule G of the Contract. This annual operational cost avoidance is shown in the following table. Operational cost avoidance escalates by 3.5% annually.

ECM	O&M Cost Avoidance
Lighting Retrofit	$4,420
Street Lighting Upgrades	$36,225
Boiler Plant Upgrades	$5,175
Ice Rink Upgrades	$41,400
Replace Condensing Units	$17,191
Total	**$104,566**

Lighting retrofit – Operational costs were calculated based on Material Savings due to reduced lighting equipment plus extended lighting material life due to mass retrofit.

Street Lighting Upgrades – Operational costs were calculated based on Material Savings due to reduced lighting equipment plus extended lighting material life due to mass retrofit.

Boiler Plant Upgrades – Operational costs were calculated based on elimination of existing repair cost of existing boilers.

Ice Rink Upgrades – Operational costs were calculated based on elimination of repair cost of existing ice rink chiller and associated equipment.

Replace Condensing Units – Operational costs were calculated based on elimination of existing repair cost of existing condensing units.

4.0 Adjustments

4.1.1 Adjustments

There are no adjustments required for this performance period.

5.0 Appendix

5.1 M&V Site Visit

HONEYWELL M&V SERVICES TEAM
CUSTOMER SITE VISIT/MEETING REPORT

Site Visit/Meeting Date:	June 12th 2017	**In Attendance:** (Full name and title)	Mike Orchanian - Town Center Maintenance Gary McAvoy – MVS
Customer Name:	Town of Mamaroneck		
Region:	NorthEast		
Job Number:	USB-006269	**Report copied to:**	Marco Clerx - Honeywell Joel Bruedigam - Honeywell
Purpose of Site Visit/Meeting:	Review of schedules, setpoints, and trends with customer.		
Author:	Gary McAvoy, MVS		

1. Issues and actions (New)

Initial date	Building	Discussed items	Issues	Actions	By	Status
06/12/17	Town Hall	Natural Gas Boiler issue	Discussion regarding downtime of natural gas boilers due to ignition issues	Sub ordered new part to resolve	Town / Sub	Completed
06/12/17	Town Hall	BMS	Future holiday schedules need to be entered for 4th of July, Labor Day, etc.	Provide training on holiday scheduling	Install	Complete
06/12/17	Fire Dept.	Fire Dept HQ's	Remote connection not communicating	Troubleshoot connection	Mamaroneck IT Dept / Deputy Chief	Pending

2. Details

The purpose of this site visit was to validate current schedules and setpoints against contractual parameters for Mamaroneck Town Center, Ice Rink, and Fire Dept HQ's.

Additional Issues and Actions specific to this site visit are shown in 'Issues and Actions' table: Schedules and setpoints for each area served are shown in Table 1 below.

CONTRACTUAL OPERATING SCHEDULES = 6:00AM – 7:00PM [Mon thru Friday] and 8:00AM – 12:00PM [Saturday] = 59 Hrs/Week

Contractual occupied setpoints are:
74 Deg F heating and 74 Deg F cooling
Contractual Unoccupied setpoints are:
60 Deg F heating and 85 Deg F cooling

Table 1:

Year 2 (Sept'16 - Aug'17) EMS Scheduling

Location	Floor	AREA Served	Year 2 Occupied Time Schedule	Days	# of Days	Year 2 Hrs / Day	Year 2 Hrs / Week	Contractual Hours / Week
Town Hall	1st Floor	Maint Entrance	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Storage Room	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Recreation Dept	5:30AM - 4:30PM	Mon, Tue, Th, Fri	4	11	44	
		Recreation Dept	5:30AM - 9PM	Wed	1	15.5	15.5	
							59.5	59
		Town Clerk	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Conf. Rm D	7AM - 10:00PM	Mon, Wed	2	15.5	31	
		Conf. Rm D	7AM - 3PM	Tue, Fri	2	8	16	
		Conf. Rm D	7AM - 7PM	Thur	1	12	12	
							59	59
		Director's Office	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Lunch Room	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Conf. Rm C	7AM - 10:30PM	Mon, Wed	2	15.5	31	
		Conf. Rm C	7AM - 3:30PM	Tue	1	8.5	8.5	
		Conf. Rm C	7AM - 7PM	Thur	1	12	12	
		Conf. Rm C	7AM - 3PM	Fri	1	8	8	
					5		59.5	59
		Community Service	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Police Locker Rm	24 hrs/day	Mon - Sun				
		Detective Room	24 hrs/day	Mon - Sun				
		Police Desk Hall	24 hrs/day	Mon - Sun				

Year 2 (Sept'16 - Aug'17) EMS Scheduling

Location	Floor	AREA Served	Year 2 Occupied Time Schedule	Days	# of Days	Year 2 Hrs / Day	Year 2 Hrs / Week	Contractual Hours / Week
Town Hall	2nd Floor	Court Clerk	5:30AM - 10PM	Mon	1	16.5	16.5	
		Court Clerk	6AM - 4:30PM	Tue - Fri	4	10.5	42	
							58.5	59
		Judges Chambers	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Court Room	4:30PM - 10PM	Mon	1	17.5	17.5	
		Court Room	6PM - 10PM	Wed	1	4	4	
						21.5	21.5	59
		Ambulance Dispatch	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Building Dept	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Assesor	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Copier Area	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Admin. Office	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Tax Office	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Executive Office	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
Town Hall	3rd Floor	SEC_A	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		SEC_B	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Historical Society	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Room 301	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		LMC TV	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		3rd Flr Hall	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Law Office	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Room 304	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Room 302	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		3rd Flr Hall_2	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59
		Room 312	5:30AM - 4:00PM	Mon - Fri	5	10.5	52.5	59

Year 2 (Sept'16 - Aug'17) EMS Setpoints

Town Center

Location	Time Program	Heating Occupied Setpoints	Heating UnOccupied Setpoints	Cooling Occupied Setpoints	Cooling UnOccupied Setpoints
Town Center 1st Floor	Police Locker Room	70	60	72	85
	Detective Rm	72	60	74	85
	Police Desk Hall	Off Line	Off Line	Off Line	Off Line
	1st Flr Main Entr.	65	60	76	85
	Storage Room	65	60	75	85
	Recreation Dept	72	60	75	85
	Town Clerk (Rm 103)	71	60	73	85
	Conference Rm D (Rm 109)	70	60	74	80
	Director's Office (Rm 110)	72	60	74	85
	Lunch Rm	70	60	77	85
	Conference Rm C (Rm 108)	70	60	72	80
	Community	70	60	72	80
Town Center 2nd Floor	Court Clerk (Rm 215)	70	60	72	85
	Judges Chambers	71	60	74	85
	Court Room	62.5	60	70	76
	Ambulance Dispatch	71	60	73	85
	Bldg Dept (Rm 208)	70	60	73	85
	Assessor	71	60	73	85
	Copier Area	70	60	74	85
	Admin. Office	70	60	74	85
	Tax Office	71	60	73.5	80
	Exec. Office	72	60	75	85
Town Center 3rd Floor	Sec-A (Rm 316)	71	60	73.5	85
	Sec-B (Rm 318)	72	60	74	85
	Hist. Society	72	60	74	85
	Room 301	70	60	75	85
	LMC-TV	65	60	71	71
	3rd Floor Hall (1)	72	60	76	85
	Law Office	72	60	74.5	85
	Room 304	65	60	76	85
	Room 302	65	60	76	85
	3rd Floor Hall (2)	70	60	75	85
	Room 312	71	60	74	85

5.2 Option C Meter Details

Town of Mamaroneck Yr. 2 Meter Detail Report

Baseline: Usage and costs representative of the facility's operations for the baseline period as seen in the contract.
Adjusted Baseline: Baseline usage and Cost adjusted to conditions of the current year. (Includes: weather, number of billing days and Facility Changes)
SimActual: Current year usage and calculated costs using the applicable contract rate.

Meter: Ice Rink - NG 83001

Baseline

	Sep 2013	Oct 2013	Nov 2013	Dec 2013	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Month Use	700	2,850	3,355	4,167	4,289	4,610	3,904	3,118	2,693	3,187	319	226
YTD Use	700	3,550	6,905	11,072	15,361	19,971	23,875	26,993	29,686	32,873	33,192	33,418
Month $	$ 796	$ 3,716	$ 3,824	$ 4,254	$ 4,996	$ 4,832	$ 4,354	$ 3,718	$ 3,368	$ 3,662	$ 417	$ 294
YTD $	$ 796	$ 4,512	$ 8,336	$ 12,590	$ 17,586	$ 22,418	$ 26,773	$ 30,490	$ 33,858	$ 37,520	$ 37,937	$ 38,231
BP Length	30	29	32	30	34	30	29	31	29	30	32	29
HDD	207	412	899	1,251	1,409	1,400	1,104	895	554	297	20	149
CDD	162	12	-	-	-	-	-	-	10	85	415	152
Month Rate	$ 1.138	$ 1.304	$ 1.140	$ 1.021	$ 1.165	$ 1.048	$ 1.115	$ 1.192	$ 1.251	$ 1.149	$ 1.308	$ 1.301
YTD Rate	$ 1.138	$ 1.271	$ 1.207	$ 1.137	$ 1.145	$ 1.123	$ 1.121	$ 1.130	$ 1.141	$ 1.141	$ 1.143	$ 1.144

Adjusted Baseline

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	809	1,717	2,756	4,154	4,565	4,074	3,793	2,617	2,186	1,549	623	761
YTD Use	809	2,526	5,282	9,436	14,001	18,074	21,867	24,484	26,670	28,219	28,842	29,603
Month $	$ 958	$ 2,033	$ 3,263	$ 4,918	$ 5,405	$ 4,823	$ 4,491	$ 3,098	$ 2,589	$ 1,834	$ 737	$ 901
YTD $	$ 958	$ 2,991	$ 6,254	$ 11,172	$ 16,578	$ 21,401	$ 25,892	$ 28,990	$ 31,579	$ 33,413	$ 34,150	$ 35,051
BP Length	32	29	30	32	34	30	29	28	29	32	30	29
HDD	109	422	759	1,209	1,335	1,193	1,105	723	577	352	57	108
CDD	245	36	-	-	-	-	-	3	15	95	283	200
Month Rate	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184
YTD Rate	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184

SimActual

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	1,376	1,551	1,908	3,088	3,335	2,680	2,593	1,708	1,358	1,214	751	739
YTD Use	1,376	2,927	4,835	7,923	11,258	13,938	16,531	18,239	19,597	20,811	21,562	22,301
Month $	$ 1,629	$ 1,836	$ 2,259	$ 3,656	$ 3,949	$ 3,173	$ 3,070	$ 2,022	$ 1,608	$ 1,437	$ 889	$ 875
YTD $	$ 1,629	$ 3,466	$ 5,725	$ 9,381	$ 13,330	$ 16,503	$ 19,573	$ 21,596	$ 23,204	$ 24,641	$ 25,530	$ 26,405
BP Length	32	29	30	32	34	30	29	28	29	32	30	29
HDD	109	422	759	1,209	1,335	1,193	1,105	723	577	352	57	108
CDD	245	36	-	-	-	-	-	3	15	95	283	200
Month Rate	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184
YTD Rate	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184	$ 1.184

SimActual vs. Adjusted Baseline

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	70.1%	-9.7%	-30.8%	-25.7%	-26.9%	-34.2%	-31.6%	-34.7%	-37.9%	-21.6%	20.6%	-2.9%
YTD Use	70.1%	15.9%	-8.5%	-16.0%	-19.6%	-22.9%	-24.4%	-25.5%	-26.5%	-26.3%	-25.2%	-24.7%
Month $	70.1%	-9.7%	-30.8%	-25.7%	-26.9%	-34.2%	-31.6%	-34.7%	-37.9%	-21.6%	20.6%	-2.9%
YTD $	70.1%	15.9%	-8.5%	-16.0%	-19.6%	-22.9%	-24.4%	-25.5%	-26.5%	-26.3%	-25.2%	-24.7%
BP Length	-	-	-	-	-	-	-	-	-	-	-	-
HDD	-	-	-	-	-	-	-	-	-	-	-	-
CDD	-	-	-	-	-	-	-	-	-	-	-	-

Use Avoidance

Month Use	(567)	166	848	1,066	1,230	1,394	1,200	909	828	335	(128)	22
YTD Use	(567)	(401)	447	1,513	2,743	4,136	5,336	6,245	7,073	7,408	7,280	7,302

Cost Avoidance

Month Use $	$ (671)	$ 196	$ 1,004	$ 1,262	$ 1,456	$ 1,650	$ 1,420	$ 1,076	$ 981	$ 397	$ (152)	$ 26
YTD $	$ (671)	$ (475)	$ 529	$ 1,791	$ 3,248	$ 4,898	$ 6,318	$ 7,394	$ 8,375	$ 8,772	$ 8,620	$ 8,646

Town of Mamaroneck Yr. 2 Meter Detail Report

Baseline: Usage and costs representative of the facility's operations for the baseline period as seen in the contract.
Adjusted Baseline: Baseline usage and Cost adjusted to conditions of the current year. (Includes: weather, number of billing days and Facility Changes)
SimActual: Current year usage and calculated costs using the applicable contract rate.

Meter: Ice Rink-Ele #2 8300

Baseline

	Sep 2013	Oct 2013	Nov 2013	Dec 2013	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Month Use	11,920	13,920	16,200	16,080	22,120	19,560	17,880	17,680	12,880	11,800	18,440	13,400
YTD Use	11,920	25,840	42,040	58,120	80,240	99,800	117,680	135,360	148,240	160,040	178,480	191,880
Meter Demand	48	49	42	42	46	43	44	42	46	46	64	55
Month $	$ 2,140	$ 1,887	$ 1,685	$ 1,985	$ 2,225	$ 1,832	$ 2,150	$ 2,017	$ 1,802	$ 1,745	$ 2,753	$ 2,037
YTD $	$ 2,140	$ 4,027	$ 5,711	$ 7,696	$ 9,921	$ 11,754	$ 13,904	$ 15,921	$ 17,723	$ 19,468	$ 22,222	$ 24,259
BP Length	30	32	29	31	33	30	29	31	29	30	32	29
HDD	54	170	542	977	1,038	1,100	814	585	274	78	-	4
CDD	72	1	-	-	-	-	-	-	3	26	255	42
Month Rate	$ 0.180	$ 0.136	$ 0.104	$ 0.123	$ 0.101	$ 0.094	$ 0.120	$ 0.114	$ 0.140	$ 0.148	$ 0.149	$ 0.152
YTD Rate	$ 0.180	$ 0.156	$ 0.136	$ 0.132	$ 0.124	$ 0.118	$ 0.118	$ 0.118	$ 0.120	$ 0.122	$ 0.125	$ 0.126

Adjusted Baseline

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	14,960	13,076	14,606	19,594	19,876	18,207	17,250	14,658	13,033	14,333	14,832	13,665
YTD Use	14,960	28,037	42,643	62,236	82,112	100,320	117,570	132,228	145,261	159,594	174,426	188,091
Meter Demand	53	44	44	44	44	44	44	44	44	53	55	54
Month $	$ 2,121	$ 1,834	$ 1,643	$ 2,379	$ 2,290	$ 2,348	$ 2,378	$ 1,859	$ 1,756	$ 2,167	$ 2,632	$ 2,407
YTD $	$ 2,121	$ 3,955	$ 5,599	$ 7,977	$ 10,267	$ 12,615	$ 14,993	$ 16,852	$ 18,608	$ 20,775	$ 23,407	$ 25,814
BP Length	32	30	29	33	33	30	29	29	28	32	30	30
HDD	4	172	455	923	961	893	815	462	286	109	1	3
CDD	114	7	-	-	-	-	-	-	3	50	145	91
Month Rate	$ 0.142	$ 0.140	$ 0.113	$ 0.121	$ 0.115	$ 0.129	$ 0.138	$ 0.127	$ 0.135	$ 0.151	$ 0.177	$ 0.176
YTD Rate	$ 0.142	$ 0.141	$ 0.131	$ 0.128	$ 0.125	$ 0.126	$ 0.128	$ 0.127	$ 0.128	$ 0.130	$ 0.134	$ 0.137

SimActual

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	14,000	11,720	11,520	12,760	13,600	11,400	10,360	10,440	11,560	11,200	12,120	12,000
YTD Use	14,000	25,720	37,240	50,000	63,600	75,000	85,360	95,800	107,360	118,560	130,680	142,680
Meter Demand	40	36	31	31	34	30	32	32	37	37	47	49
Month $	$ 1,985	$ 1,644	$ 1,296	$ 1,549	$ 1,567	$ 1,470	$ 1,428	$ 1,324	$ 1,558	$ 1,693	$ 2,151	$ 2,114
YTD $	$ 1,985	$ 3,629	$ 4,925	$ 6,474	$ 8,041	$ 9,511	$ 10,939	$ 12,263	$ 13,821	$ 15,514	$ 17,665	$ 19,779
BP Length	32	30	29	33	33	30	29	29	28	32	30	30
HDD	4	172	455	923	961	893	815	462	286	109	1	3
CDD	114	7	-	-	-	-	-	-	3	50	145	91
Month Rate	$ 0.142	$ 0.140	$ 0.112	$ 0.121	$ 0.115	$ 0.129	$ 0.138	$ 0.127	$ 0.135	$ 0.151	$ 0.177	$ 0.176
YTD Rate	$ 0.142	$ 0.141	$ 0.132	$ 0.129	$ 0.126	$ 0.127	$ 0.128	$ 0.128	$ 0.129	$ 0.131	$ 0.135	$ 0.139

SimActual vs. Adjusted Baseline

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	-6.4%	-10.4%	-21.1%	-34.9%	-31.6%	-37.4%	-39.9%	-28.8%	-11.3%	-21.9%	-18.3%	-12.2%
YTD Use	-6.4%	-8.3%	-12.7%	-19.7%	-22.5%	-25.2%	-27.4%	-27.5%	-26.1%	-25.7%	-25.1%	-24.1%
Meter Demand	-25.0%	-17.3%	-28.8%	-28.8%	-21.9%	-31.1%	-26.5%	-26.5%	-15.0%	-30.6%	-14.5%	-9.5%
YTD Meter Demand	-25.0%	-21.5%	-23.8%	-25.0%	-24.4%	-25.4%	-25.6%	-25.7%	-24.5%	-25.3%	-24.1%	-22.7%
Month $	-6.4%	-10.4%	-21.1%	-34.9%	-31.6%	-37.4%	-39.9%	-28.8%	-11.3%	-21.9%	-18.3%	-12.2%
YTD $	-6.4%	-8.3%	-12.0%	-18.8%	-21.7%	-24.6%	-27.0%	-27.2%	-25.7%	-25.3%	-24.5%	-23.4%
BP Length	-	-	-	-	-	-	-	-	-	-	-	-
HDD	-	-	-	-	-	-	-	-	-	-	-	-
CDD	-	-	-	-	-	-	-	-	-	-	-	-

Use Avoidance

Month Use	960	1,356	3,086	6,834	6,276	6,807	6,890	4,218	1,473	3,133	2,712	1,665
YTD Use	960	2,317	5,403	12,236	18,512	25,320	32,210	36,428	37,901	41,034	43,746	45,411

Demand Avoidance

Meter Demand	13	8	13	13	10	14	12	12	7	16	8	5

Cost Avoidance

Month Use $	$ 136	$ 190	$ 347	$ 830	$ 723	$ 878	$ 950	$ 535	$ 198	$ 474	$ 481	$ 293
YTD $	$ 136	$ 326	$ 674	$ 1,503	$ 2,226	$ 3,104	$ 4,054	$ 4,589	$ 4,787	$ 5,261	$ 5,742	$ 6,035

Town of Mamaroneck Yr. 2 Meter Detail Report

Baseline: Usage and costs representative of the facility's operations for the baseline period as seen in the contract.
Adjusted Baseline: Baseline usage and Cost adjusted to conditions of the current year. (Includes: weather, number of billing days and Facility Changes)
SimActual: Current year usage and calculated costs using the applicable contract rate.

Meter: Ice Rink-Ele #3 0000-5

Baseline

	Sep 2013	Oct 2013	Nov 2013	Dec 2013	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Month Use	1,440	1,880	1,840	2,680	3,120	2,360	2,160	1,960	1,640	1,360	1,480	1,080
YTD Use	1,440	3,320	5,160	7,840	10,960	13,320	15,480	17,440	19,080	20,440	21,920	23,000
Meter Demand	8	14	15	15	15	14	14	13	11	11	10	12
Month $	$ 326	$ 458	$ 429	$ 537	$ 546	$ 426	$ 477	$ 429	$ 366	$ 355	$ 371	$ 369
YTD $	$ 326	$ 784	$ 1,213	$ 1,750	$ 2,296	$ 2,722	$ 3,199	$ 3,628	$ 3,994	$ 4,349	$ 4,721	$ 5,089
BP Length	30	32	29	31	33	30	29	31	29	30	32	29
HDD	99	288	658	1,101	1,170	1,220	930	709	383	146	-	25
CDD	162	12	-	-	-	-	-	-	10	85	415	152
Month Rate	$ 0.226	$ 0.244	$ 0.233	$ 0.200	$ 0.175	$ 0.180	$ 0.221	$ 0.219	$ 0.223	$ 0.261	$ 0.251	$ 0.341
YTD Rate	$ 0.226	$ 0.236	$ 0.235	$ 0.223	$ 0.210	$ 0.204	$ 0.207	$ 0.208	$ 0.209	$ 0.213	$ 0.215	$ 0.221

Adjusted Baseline

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	1,388	1,575	1,867	2,574	2,617	2,400	2,267	1,872	1,622	1,585	1,287	1,300
YTD Use	1,388	2,964	4,831	7,405	10,023	12,423	14,690	16,562	18,184	19,768	21,055	22,355
Meter Demand	10	10	12	15	17	15	15	13	11	10	10	10
Month $	$ 150	$ 163	$ 153	$ 257	$ 250	$ 282	$ 281	$ 224	$ 204	$ 182	$ 220	$ 207
YTD $	$ 150	$ 314	$ 466	$ 723	$ 974	$ 1,256	$ 1,537	$ 1,761	$ 1,965	$ 2,147	$ 2,367	$ 2,574
BP Length	32	30	29	33	33	30	29	29	28	32	30	30
HDD	24	269	571	1,055	1,093	1,013	931	575	388	201	9	21
CDD	245	36	-	-	-	-	-	3	15	95	283	214
Month Rate	$ 0.108	$ 0.104	$ 0.082	$ 0.100	$ 0.096	$ 0.118	$ 0.124	$ 0.120	$ 0.126	$ 0.115	$ 0.171	$ 0.159
YTD Rate	$ 0.108	$ 0.106	$ 0.097	$ 0.098	$ 0.097	$ 0.101	$ 0.105	$ 0.106	$ 0.108	$ 0.109	$ 0.112	$ 0.115

SimActual

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	23,760	22,160	23,080	22,280	20,520	16,920	14,080	12,840	13,000	10,800	9,240	10,000
YTD Use	23,760	45,920	69,000	91,280	111,800	128,720	142,800	155,640	168,640	179,440	188,680	198,680
Meter Demand	38	36	36	39	38	39	36	37	37	21	33	34
Month $	$ 2,574	$ 2,298	$ 1,887	$ 2,223	$ 1,964	$ 1,989	$ 1,745	$ 1,537	$ 1,636	$ 1,239	$ 1,581	$ 1,594
YTD $	$ 2,574	$ 4,872	$ 6,759	$ 8,982	$ 10,946	$ 12,935	$ 14,680	$ 16,217	$ 17,853	$ 19,092	$ 20,673	$ 22,267
BP Length	32	30	29	33	33	30	29	29	28	32	30	30
HDD	24	269	571	1,055	1,093	1,013	931	575	388	201	9	21
CDD	245	36	-	-	-	-	-	3	15	95	283	214
Month Rate	$ 0.108	$ 0.104	$ 0.082	$ 0.100	$ 0.096	$ 0.118	$ 0.124	$ 0.120	$ 0.126	$ 0.115	$ 0.171	$ 0.159
YTD Rate	$ 0.108	$ 0.106	$ 0.098	$ 0.098	$ 0.098	$ 0.100	$ 0.103	$ 0.104	$ 0.106	$ 0.106	$ 0.110	$ 0.112

SimActual vs. Adjusted Baseline

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	1611.2%	1307.0%	1135.9%	765.4%	684.1%	604.9%	521.0%	586.0%	701.5%	581.5%	618.1%	669.2%
YTD Use	1611.2%	1449.5%	1328.3%	1132.6%	1015.5%	936.2%	872.1%	839.8%	827.4%	807.7%	796.1%	788.7%
Meter Demand	270.8%	245.7%	192.7%	151.7%	129.4%	159.9%	133.5%	193.0%	241.9%	104.9%	222.0%	231.8%
YTD Meter Demand	270.8%	258.2%	233.7%	207.5%	187.6%	182.4%	174.5%	176.7%	182.6%	176.5%	179.8%	183.4%
Month $	1611.2%	1307.0%	1135.9%	765.4%	684.0%	604.9%	521.0%	586.0%	701.5%	581.5%	618.1%	669.2%
YTD $	1611.2%	1452.8%	1349.1%	1141.8%	1024.1%	929.9%	855.2%	820.9%	808.5%	789.3%	773.4%	765.0%
BP Length	-	-	-	-	-	-	-	-	-	-	-	-
HDD	-	-	-	-	-	-	-	-	-	-	-	-
CDD	-	-	-	-	-	-	-	-	-	-	-	-

Use Avoidance

Month Use	(22,372)	(20,585)	(21,213)	(19,706)	(17,903)	(14,520)	(11,813)	(10,968)	(11,378)	(9,215)	(7,953)	(8,700)
YTD Use	(22,372)	(42,956)	(64,169)	(83,875)	(101,777)	(116,297)	(128,110)	(139,078)	(150,456)	(159,672)	(167,625)	(176,325)

Demand Avoidance

Meter Demand	(28)	(26)	(24)	(24)	(21)	(24)	(21)	(24)	(26)	(11)	(23)	(24)

Cost Avoidance

Month Use $	$ (2,424)	$ (2,135)	$ (1,734)	$ (1,966)	$ (1,714)	$ (1,707)	$ (1,464)	$ (1,313)	$ (1,432)	$ (1,057)	$ (1,361)	$ (1,387)
YTD $	$ (2,424)	$ (4,558)	$ (6,293)	$ (8,259)	$ (9,972)	$ (11,679)	$ (13,143)	$ (14,456)	$ (15,888)	$ (16,945)	$ (18,306)	$ (19,693)

Town of Mamaroneck Yr. 2 Meter Detail Report

Baseline: Usage and costs representative of the facility's operations for the baseline period as seen in the contract.
Adjusted Baseline: Baseline usage and Cost adjusted to conditions of the current year. (Includes: weather, number of billing days and Facility Changes)
SimActual: Current year usage and calculated costs using the applicable contract rate.

Meter: Ice Rink-Ele Main 8200

Baseline

	Sep 2013	Oct 2013	Nov 2013	Dec 2013	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Month Use	76,160	78,160	83,760	74,320	87,040	72,640	63,040	66,080	64,720	77,120	22,400	12,160
YTD Use	76,160	154,320	238,080	312,400	399,440	472,080	535,120	601,200	665,920	743,040	765,440	777,600
Meter Demand	170	126	122	118	117	116	116	121	123	196	106	36
Month $	$ 10,084	$ 6,557	$ 6,320	$ 7,188	$ 7,112	$ 5,741	$ 6,709	$ 6,635	$ 6,469	$ 8,728	$ 4,230	$ 2,760
YTD $	$ 10,084	$ 16,641	$ 22,961	$ 30,148	$ 37,261	$ 43,002	$ 49,711	$ 56,345	$ 62,814	$ 71,542	$ 75,772	$ 78,533
BP Length	30	32	29	31	33	30	29	31	29	30	32	29
HDD	314	606	948	1,411	1,500	1,520	1,220	1,019	670	413	77	258
CDD	162	12	-	-	-	-	-	-	10	85	415	152
Month Rate	$ 0.132	$ 0.084	$ 0.075	$ 0.097	$ 0.082	$ 0.079	$ 0.106	$ 0.100	$ 0.100	$ 0.113	$ 0.189	$ 0.227
YTD Rate	$ 0.132	$ 0.108	$ 0.096	$ 0.097	$ 0.093	$ 0.091	$ 0.093	$ 0.094	$ 0.094	$ 0.096	$ 0.099	$ 0.101

Adjusted Baseline

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	79,022	73,275	83,314	79,846	86,824	72,392	62,998	61,817	62,388	81,583	21,000	13,141
YTD Use	79,022	152,297	235,611	315,457	402,281	474,673	537,671	599,488	661,876	743,459	764,459	777,600
Meter Demand	164	126	122	118	117	116	116	121	123	191	106	41
Month $	$ 8,848	$ 8,430	$ 7,817	$ 8,487	$ 8,310	$ 8,459	$ 7,855	$ 7,563	$ 7,814	$ 8,846	$ 3,906	$ 1,277
YTD $	$ 8,848	$ 17,278	$ 25,095	$ 33,582	$ 41,892	$ 50,351	$ 58,205	$ 65,769	$ 73,582	$ 82,428	$ 86,334	$ 87,611
BP Length	32	30	29	33	33	30	29	29	28	32	30	30
HDD	210	557	861	1,385	1,423	1,313	1,221	865	663	466	144	212
CDD	245	36	-	-	-	-	-	3	15	95	283	214
Month Rate	$ 0.112	$ 0.115	$ 0.094	$ 0.106	$ 0.096	$ 0.117	$ 0.125	$ 0.122	$ 0.125	$ 0.108	$ 0.186	$ 0.097
YTD Rate	$ 0.112	$ 0.113	$ 0.107	$ 0.106	$ 0.104	$ 0.106	$ 0.108	$ 0.110	$ 0.111	$ 0.111	$ 0.113	$ 0.113

SimActual

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	72,400	59,840	65,440	67,840	72,240	58,720	50,720	44,960	45,680	40,000	29,840	42,800
YTD Use	72,400	132,240	197,680	265,520	337,760	396,480	447,200	492,160	537,840	577,840	607,680	650,480
Meter Demand	126	123	134	134	134	134	133	134	130	68	124	425
Month $	$ 8,107	$ 6,884	$ 6,140	$ 7,211	$ 6,914	$ 6,861	$ 6,324	$ 5,501	$ 5,721	$ 4,337	$ 5,550	$ 4,159
YTD $	$ 8,107	$ 14,991	$ 21,131	$ 28,342	$ 35,256	$ 42,117	$ 48,441	$ 53,942	$ 59,663	$ 64,000	$ 69,550	$ 73,709
BP Length	32	30	29	33	33	30	29	29	28	32	30	30
HDD	210	557	861	1,385	1,423	1,313	1,221	865	663	466	144	212
CDD	245	36	-	-	-	-	-	3	15	95	283	214
Month Rate	$ 0.112	$ 0.115	$ 0.094	$ 0.106	$ 0.096	$ 0.117	$ 0.125	$ 0.122	$ 0.125	$ 0.108	$ 0.186	$ 0.097
YTD Rate	$ 0.112	$ 0.113	$ 0.107	$ 0.107	$ 0.104	$ 0.106	$ 0.108	$ 0.110	$ 0.111	$ 0.111	$ 0.114	$ 0.113

SimActual vs. Adjusted Baseline

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	-8.4%	-18.3%	-21.5%	-15.0%	-16.8%	-18.9%	-19.5%	-27.3%	-26.8%	-51.0%	42.1%	225.7%
YTD Use	-8.4%	-13.2%	-16.1%	-15.8%	-16.0%	-16.5%	-16.8%	-17.9%	-18.7%	-22.3%	-20.5%	-16.3%
Meter Demand	-23.2%	-2.1%	10.1%	13.9%	14.7%	15.5%	14.5%	10.9%	5.6%	-64.5%	17.4%	945.8%
YTD Meter Demand	-23.2%	-14.0%	-6.9%	-2.3%	0.8%	3.0%	4.6%	5.3%	5.4%	-4.8%	-3.2%	23.3%
Month $	-8.4%	-18.3%	-21.5%	-15.0%	-16.8%	-18.9%	-19.5%	-27.3%	-26.8%	-51.0%	42.1%	225.7%
YTD $	-8.4%	-13.2%	-15.8%	-15.6%	-15.8%	-16.4%	-16.8%	-18.0%	-18.9%	-22.4%	-19.4%	-15.9%
BP Length	-	-	-	-	-	-	-	-	-	-	-	-
HDD	-	-	-	-	-	-	-	-	-	-	-	-
CDD	-	-	-	-	-	-	-	-	-	-	-	-

Use Avoidance

Month Use	6,622	13,435	17,874	12,006	14,584	13,672	12,278	16,857	16,708	41,583	(8,840)	(29,659)
YTD Use	6,622	20,057	37,931	49,937	64,521	78,193	90,471	107,328	124,036	165,619	156,779	127,120

Demand Avoidance

Meter Demand	38	3	(12)	(16)	(17)	(18)	(17)	(13)	(7)	123	(18)	(384)

Cost Avoidance

Month Use $	$ 741	$ 1,546	$ 1,677	$ 1,276	$ 1,396	$ 1,598	$ 1,531	$ 2,062	$ 2,093	$ 4,509	$ (1,644)	$ (2,882)
YTD $	$ 741	$ 2,287	$ 3,964	$ 5,240	$ 6,636	$ 8,234	$ 9,764	$ 11,827	$ 13,919	$ 18,428	$ 16,784	$ 13,902

Town of Mamaroneck Yr. 2 Meter Detail Report

Baseline: Usage and costs representative of the facility's operations for the baseline period as seen in the contract.
Adjusted Baseline: Baseline usage and Cost adjusted to conditions of the current year. (Includes: weather, number of billing days and Facility Changes)
SimActual: Current year usage and calculated costs using the applicable contract rate.

Meter: Town Center - Fuel Oil

Baseline

	Sep 2013	Oct 2013	Nov 2013	Dec 2013	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Month Use	173	409	1,029	1,418	1,524	1,397	1,229	705	321	39	3	2
YTD Use	173	582	1,611	3,029	4,553	5,950	7,179	7,884	8,205	8,244	8,247	8,249
Month $	$ 598	$ 1,413	$ 3,556	$ 4,900	$ 5,266	$ 4,828	$ 4,247	$ 2,436	$ 1,109	$ 135	$ 10	$ 7
YTD $	$ 598	$ 2,011	$ 5,567	$ 10,467	$ 15,733	$ 20,561	$ 24,808	$ 27,244	$ 28,353	$ 28,488	$ 28,498	$ 28,505
BP Length	30	31	30	31	31	28	31	30	31	30	31	31
HDD	117	278	698	962	1,034	948	833	478	218	27	2	2
CDD	73	12	-	-	-	-	-	-	41	154	372	185
Month Rate	$ 3.457	$ 3.455	$ 3.456	$ 3.456	$ 3.455	$ 3.456	$ 3.456	$ 3.455	$ 3.455	$ 3.462	$ 3.333	$ 3.500
YTD Rate	$ 3.457	$ 3.455	$ 3.456	$ 3.456	$ 3.456	$ 3.456	$ 3.456	$ 3.456	$ 3.456	$ 3.456	$ 3.456	$ 3.456

Adjusted Baseline

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	58	470	803	1,360	1,353	1,138	1,317	512	411	66	6	4
YTD Use	58	528	1,331	2,691	4,044	5,182	6,499	7,011	7,422	7,487	7,493	7,497
Month $	$ 209	$ 1,680	$ 2,872	$ 4,863	$ 4,840	$ 4,072	$ 4,710	$ 1,831	$ 1,469	$ 235	$ 21	$ 13
YTD $	$ 209	$ 1,889	$ 4,761	$ 9,624	$ 14,464	$ 18,536	$ 23,247	$ 25,077	$ 26,547	$ 26,782	$ 26,803	$ 26,816
BP Length	30	31	30	31	31	28	31	30	31	30	31	31
HDD	40	319	545	922	918	772	893	347	279	45	4	3
CDD	153	14	-	-	-	-	-	16	2	168	276	201
Month Rate	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577
YTD Rate	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577

SimActual

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	5	37	64	108	107	90	104	41	33	5	-	-
YTD Use	5	42	106	214	321	411	515	556	589	594	594	594
Month $	$ 18	$ 132	$ 229	$ 386	$ 383	$ 322	$ 372	$ 147	$ 118	$ 18	$ -	$ -
YTD $	$ 18	$ 150	$ 379	$ 765	$ 1,148	$ 1,470	$ 1,842	$ 1,989	$ 2,107	$ 2,125	$ 2,125	$ 2,125
BP Length	30	31	30	31	31	28	31	30	31	30	31	31
HDD	40	319	545	922	918	772	893	347	279	45	4	3
CDD	153	14	-	-	-	-	-	16	2	168	276	201
Month Rate	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577
YTD Rate	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577	$ 3.577

SimActual vs. Adjusted Baseline

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	-91.4%	-92.1%	-92.0%	-92.1%	-92.1%	-92.1%	-92.1%	-92.0%	-92.0%	-92.4%	-100.0%	-100.0%
YTD Use	-91.4%	-92.0%	-92.0%	-92.0%	-92.1%	-92.1%	-92.1%	-92.1%	-92.1%	-92.1%	-92.1%	-92.1%
Month $	-91.4%	-92.1%	-92.0%	-92.1%	-92.1%	-92.1%	-92.1%	-92.0%	-92.0%	-92.4%	-100.0%	-100.0%
YTD $	-91.4%	-92.0%	-92.0%	-92.0%	-92.1%	-92.1%	-92.1%	-92.1%	-92.1%	-92.1%	-92.1%	-92.1%
BP Length	-	-	-	-	-	-	-	-	-	-	-	-
HDD	-	-	-	-	-	-	-	-	-	-	-	-
CDD	-	-	-	-	-	-	-	-	-	-	-	-

Use Avoidance

Month Use	53	433	739	1,252	1,246	1,048	1,213	471	378	61	6	4
YTD Use	53	486	1,225	2,477	3,723	4,771	5,984	6,455	6,833	6,893	6,899	6,903

Cost Avoidance

Month Use $	$ 191	$ 1,548	$ 2,643	$ 4,477	$ 4,457	$ 3,750	$ 4,338	$ 1,684	$ 1,351	$ 217	$ 21	$ 13
YTD $	$ 191	$ 1,739	$ 4,382	$ 8,859	$ 13,316	$ 17,066	$ 21,405	$ 23,089	$ 24,440	$ 24,657	$ 24,678	$ 24,692

Town of Mamaroneck Yr. 2 Meter Detail Report

Baseline: Usage and costs representative of the facility's operations for the baseline period as seen in the contract.
Adjusted Baseline: Baseline usage and Cost adjusted to conditions of the current year. (Includes: weather, number of billing days and Facility Changes)
SimActual: Current year usage and calculated costs using the applicable contract rate.

Meter: Town Ctr - NG 4018

Baseline

	Sep 2013	Oct 2013	Nov 2013	Dec 2013	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Month Use	8	9	10	13	14	15	11	11	11	10	9	8
YTD Use	8	17	27	40	54	69	80	91	102	112	121	129
Month $	$ 40	$ 41	$ 45	$ 47	$ 52	$ 50	$ 44	$ 46	$ 44	$ 42	$ 44	$ 39
YTD $	$ 40	$ 80	$ 125	$ 172	$ 225	$ 274	$ 319	$ 365	$ 409	$ 451	$ 495	$ 534
BP Length	30	29	32	30	34	30	29	31	29	30	32	29
HDD	16	41	419	801	899	950	669	434	151	30	-	-
CDD	162	12	-	-	-	-	-	-	10	85	415	152
Month Rate	$ 4.990	$ 4.500	$ 4.484	$ 3.615	$ 3.739	$ 3.325	$ 4.005	$ 4.183	$ 4.038	$ 4.199	$ 4.862	$ 4.894
YTD Rate	$ 4.990	$ 4.731	$ 4.639	$ 4.307	$ 4.159	$ 3.978	$ 3.982	$ 4.006	$ 4.009	$ 4.026	$ 4.089	$ 4.138

Adjusted Baseline

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	9	9	10	13	14	13	12	10	9	9	9	8
YTD Use	9	18	28	42	56	68	80	90	99	109	117	126
Month $	$ -	$ 35	$ 41	$ 12	$ 12	$ 12	$ 12	$ 11	$ 11	$ 43	$ 10	$ 10
YTD $	$ -	$ 35	$ 77	$ 88	$ 100	$ 112	$ 124	$ 135	$ 146	$ 189	$ 199	$ 209
BP Length	32	29	30	32	34	30	29	28	29	32	30	29
HDD	-	68	314	729	825	743	670	318	173	31	-	-
CDD	245	36	-	-	-	-	-	3	15	95	283	200
Month Rate	$ -	$ 4.000	$ 4.000	$ 0.886	$ 0.838	$ 0.957	$ 1.034	$ 1.104	$ 1.204	$ 4.500	$ 1.179	$ 1.157
YTD Rate	$ -	$ 1.942	$ 2.691	$ 2.122	$ 1.796	$ 1.642	$ 1.551	$ 1.503	$ 1.475	$ 1.738	$ 1.697	$ 1.660

SimActual

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	-	10	10	543	2,391	2,300	1,935	936	329	10	340	318
YTD Use	-	10	20	563	2,954	5,254	7,189	8,125	8,454	8,464	8,804	9,122
Month $	$ -	$ 40	$ 40	$ 481	$ 2,004	$ 2,200	$ 2,000	$ 1,033	$ 396	$ 45	$ 401	$ 368
YTD $	$ -	$ 40	$ 80	$ 561	$ 2,565	$ 4,765	$ 6,765	$ 7,798	$ 8,194	$ 8,239	$ 8,640	$ 9,008
BP Length	32	29	30	32	34	30	29	28	29	32	30	29
HDD	-	68	314	729	825	743	670	318	173	31	-	-
CDD	245	36	-	-	-	-	-	3	15	95	283	200
Month Rate	$ -	$ 4.000	$ 4.000	$ 0.886	$ 0.838	$ 0.957	$ 1.034	$ 1.104	$ 1.204	$ 4.500	$ 1.179	$ 1.157
YTD Rate	$ -	$ 4.000	$ 4.000	$ 0.996	$ 0.868	$ 0.907	$ 0.941	$ 0.960	$ 0.969	$ 0.973	$ 0.981	$ 0.988

SimActual vs. Adjusted Baseline

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	-100.0%	13.7%	-3.4%	4053.1%	16798.5%	18209.4%	16164.5%	9461.3%	3424.0%	5.5%	3792.0%	3665.7%
YTD Use	-100.0%	-44.8%	-29.7%	1255.3%	5204.5%	7598.1%	8869.7%	8934.1%	8415.9%	7682.9%	7393.6%	7143.6%
Month $	-	13.7%	-3.4%	4053.1%	16798.6%	18209.4%	16164.5%	9461.3%	3423.9%	5.5%	3792.0%	3665.7%
YTD $	-	13.7%	4.5%	536.3%	2464.3%	4152.9%	5340.8%	5670.2%	5497.8%	4258.6%	4234.4%	4207.9%
BP Length	-	-	-	-	-	-	-	-	-	-	-	-
HDD	-	-	-	-	-	-	-	-	-	-	-	-
CDD	-	-	-	-	-	-	-	-	-	-	-	-

Use Avoidance

Month Use	9	(1)	0	(530)	(2,377)	(2,287)	(1,923)	(926)	(320)	(1)	(331)	(310)
YTD Use	9	8	8	(521)	(2,898)	(5,186)	(7,109)	(8,035)	(8,355)	(8,355)	(8,687)	(8,996)

Cost Avoidance

Month Use $	$ -	$ (5)	$ 1	$ (469)	$ (1,992)	$ (2,188)	$ (1,988)	$ (1,022)	$ (385)	$ (2)	$ (391)	$ (358)
YTD $	$ -	$ (5)	$ (3)	$ (473)	$ (2,465)	$ (4,653)	$ (6,641)	$ (7,663)	$ (8,048)	$ (8,050)	$ (8,441)	$ (8,799)

Town of Mamaroneck Yr. 2 Meter Detail Report

Baseline: Usage and costs representative of the facility's operations for the baseline period as seen in the contract.
Adjusted Baseline: Baseline usage and Cost adjusted to conditions of the current year. (Includes: weather, number of billing days and Facility Changes)
SimActual: Current year usage and calculated costs using the applicable contract rate.

Meter: Weaver St Fire NG 8400

Baseline

	Sep 2013	Oct 2013	Nov 2013	Dec 2013	Jan 2013	Feb 2013	Mar 2013	Apr 2013	May 2013	Jun 2013	Jul 2013	Aug 2013
Month Use	128	198	450	964	1,021	925	631	254	136	134	137	129
YTD Use	128	326	776	1,740	2,761	3,686	4,317	4,571	4,707	4,841	4,978	5,107
Month $	$ 184	$ 297	$ 532	$ 1,147	$ 1,220	$ 1,093	$ 765	$ 352	$ 216	$ 199	$ 207	$ 186
YTD $	$ 184	$ 482	$ 1,014	$ 2,161	$ 3,381	$ 4,474	$ 5,239	$ 5,591	$ 5,807	$ 6,006	$ 6,213	$ 6,399
BP Length	30	32	29	34	30	30	31	29	30	29	32	29
HDD	34	145	481	897	863	843	671	320	110	4	-	-
CDD	101	12	-	-	-	-	-	-	30	146	386	161
Month Rate	$ 1.441	$ 1.502	$ 1.183	$ 1.190	$ 1.195	$ 1.182	$ 1.213	$ 1.386	$ 1.589	$ 1.484	$ 1.510	$ 1.441
YTD Rate	$ 1.441	$ 1.478	$ 1.307	$ 1.242	$ 1.224	$ 1.214	$ 1.214	$ 1.223	$ 1.234	$ 1.241	$ 1.248	$ 1.253

Adjusted Baseline

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	79	222	503	788	836	696	767	292	211	81	75	78
YTD Use	79	301	804	1,592	2,428	3,124	3,891	4,183	4,394	4,475	4,551	4,629
Month $	$ 90	$ 226	$ 431	$ 646	$ 861	$ 842	$ 721	$ 377	$ 269	$ 119	$ 116	$ 110
YTD $	$ 90	$ 316	$ 747	$ 1,393	$ 2,254	$ 3,096	$ 3,817	$ 4,194	$ 4,463	$ 4,581	$ 4,697	$ 4,807
BP Length	30	30	33	30	32	30	29	31	29	29	30	31
HDD	4	153	438	742	788	647	724	223	144	9	-	-
CDD	173	14	-	-	-	-	-	16	2	149	282	208
Month Rate	$ 1.136	$ 1.017	$ 0.858	$ 0.820	$ 1.029	$ 1.210	$ 0.940	$ 1.292	$ 1.272	$ 1.463	$ 1.531	$ 1.413
YTD Rate	$ 1.136	$ 1.048	$ 0.929	$ 0.875	$ 0.928	$ 0.991	$ 0.981	$ 1.003	$ 1.016	$ 1.024	$ 1.032	$ 1.039

SimActual

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	118	180	507	942	1,064	794	1,001	243	162	108	81	109
YTD Use	118	298	805	1,747	2,811	3,605	4,606	4,849	5,011	5,119	5,200	5,309
Month $	$ 134	$ 183	$ 435	$ 772	$ 1,095	$ 961	$ 941	$ 314	$ 206	$ 158	$ 124	$ 154
YTD $	$ 134	$ 317	$ 752	$ 1,525	$ 2,619	$ 3,580	$ 4,521	$ 4,835	$ 5,041	$ 5,199	$ 5,323	$ 5,477
BP Length	30	30	33	30	32	30	29	31	29	29	30	31
HDD	4	153	438	742	788	647	724	223	144	9	-	-
CDD	173	14	-	-	-	-	-	16	2	149	282	208
Month Rate	$ 1.136	$ 1.017	$ 0.858	$ 0.820	$ 1.029	$ 1.210	$ 0.940	$ 1.292	$ 1.272	$ 1.463	$ 1.531	$ 1.413
YTD Rate	$ 1.136	$ 1.064	$ 0.934	$ 0.873	$ 0.932	$ 0.993	$ 0.982	$ 0.997	$ 1.006	$ 1.016	$ 1.024	$ 1.032

SimActual vs. Adjusted Baseline

	Sep 2016	Oct 2016	Nov 2016	Dec 2016	Jan 2017	Feb 2017	Mar 2017	Apr 2017	May 2017	Jun 2017	Jul 2017	Aug 2017
Month Use	48.8%	-18.9%	0.8%	19.6%	27.2%	14.1%	30.5%	-16.8%	-23.3%	33.1%	7.3%	39.7%
YTD Use	48.8%	-1.0%	0.1%	9.8%	15.8%	15.4%	18.4%	15.9%	14.0%	14.4%	14.3%	14.7%
Month $	48.8%	-18.9%	0.8%	19.6%	27.2%	14.1%	30.5%	-16.8%	-23.3%	33.1%	7.3%	39.7%
YTD $	48.8%	0.4%	0.7%	9.4%	16.2%	15.7%	18.4%	15.3%	13.0%	13.5%	13.3%	13.9%
BP Length	-	-	-	-	-	-	-	-	-	-	-	-
HDD	-	-	-	-	-	-	-	-	-	-	-	-
CDD	-	-	-	-	-	-	-	-	-	-	-	-

Use Avoidance

Month Use	(39)	42	(4)	(154)	(228)	(98)	(234)	49	49	(27)	(6)	(31)
YTD Use	(39)	3	(1)	(155)	(383)	(481)	(715)	(666)	(617)	(644)	(649)	(680)

Cost Avoidance

Month Use $	$ (44)	$ 43	$ (4)	$ (127)	$ (234)	$ (119)	$ (220)	$ 63	$ 63	$ (39)	$ (8)	$ (44)
YTD $	$ (44)	$ (1)	$ (5)	$ (132)	$ (366)	$ (485)	$ (704)	$ (641)	$ (578)	$ (618)	$ (626)	$ (670)

5.3 EMS Scheduling/Setpoints

Town Center – See Section 5.1 (Details - Table 1) for EMS Scheduling and Setpoints

Fire Dept HQ's - EMS Scheduling / Setpoints

Weaver St Fire Dept HQ's

Location	T-Stat Location	Year 2 Time Schedule	Days	# of Days	Year 2 Hrs / Day	Year 2 Hrs / Week	Contractual Hours / Week	Heating Occupied Setpoints	Heating UnOccupied Setpoints	Cooling Occupied Setpoints	Cooling UnOccupied Setpoints
Fire Dept HQ's	Basement Kitchen	12PM - 9PM	Mon - Fri	5	9	45	45	70	64	74	74
		9AM - 5PM	Sat / Sun	2	8	16	16				
						61	61				
	Basement Club Room	12PM - 9PM	Mon - Fri	5	9	45	45	70	64	74	74
		9AM - 5PM	Sat / Sun	2	8	16	16				
						61	61				
	1st Floor Foyer	12PM - 9PM	Mon - Fri	5	9	45	45	70	64	74	74
		9AM - 5PM	Sat / Sun	2	8	16	16				
						61	61				
	1st Floor Day Room	12PM - 9PM	Mon - Fri	5	9	45	45	68	65	74	74
		9AM - 5PM	Sat / Sun	2	8	16	16				
						61	61				
	2nd Floor Chief Office	12PM - 9PM	Mon - Fri	5	9	45	45	68	68	74	74
		9AM - 5PM	Sat / Sun	2	8	16	16				
						61	61				
	2nd Floor Conf. Room	12PM - 9PM	Mon - Fri	5	9	45	45	65	65	74	74
		9AM - 5PM	Sat / Sun	2	8	16	16				
						61	61				
	2nd Floor Training Aud. West	12PM - 9PM	Mon - Fri	5	9	45	45	68	65	74	74
		9AM - 5PM	Sat / Sun	2	8	16	16				
						61	61				
	2nd Floor Training Aud. East	12PM - 9PM	Mon - Fri	5	9	45	45	68	65	74	74
		9AM - 5PM	Sat / Sun	2	8	16	16				
						61	61				
	2nd Floor Gym Area	24 hrs/day	Mon - Sun	7	24	168	168	65	65	74	74

Ice Rink - EMS Scheduling / Setpoints

Ice Rink

Location	Time Program	Year 2 Time Schedule	Days	# of Days	Year 2 Hrs / Day	Year 2 Hrs / Week	Contractual Hours / Week	Heating Occupied Setpoints	Heating UnOccupied Setpoints	Cooling Occupied Setpoints	Cooling UnOccupied Setpoints
Winter Mode											
Ice Rink	AHU1	8AM - 9PM	Mon, Tue, Wed	3	13	39		72	60	74	85
		9AM - 9PM	Thu	1	12	12					
		9AM - 10PM	Fri	1	13	13					
		7AM - 9PM	Sat	1	14	14					
		6:30AM - 10:30PM	Sun	1	16	16					
				7		**94**	**129.5**				
	AHU2	8AM - 8PM	Mon	1	12	12		72	60	74	85
		9AM - 9PM	Tue	1	13	13					
		8AM - 9PM	Wed	1	13	13					
		9AM - 9PM	Thur	1	14	14					
		8AM - 9PM	Fri	1	14	14					
		9AM - 10PM	Sat	1	14	14					
		9AM - 10PM	Sun	1	12	12					
				7		**92.0**	**129.5**				
	Muenters Unit	4:30AM - 11PM	Sun, Mon, Tue	3	18.5	55.5				74	74
		4:30AM-12AM	Wed, Thur, Fri, Sat	4	19.5	78					
				7		**133.5**	**129.5**				
Summer Mode											
Ice Rink	AHU1	8AM - 9PM	Mon, Tue, Wed	3	8	24				74	85
		9AM - 9PM	Thu	1	6.5	6.5					
		9AM - 10PM	Fri	1	7.5	7.5					
		7AM - 9PM	Sat	1	12	12					
		6:30AM - 10:30PM	Sun	1	3	3					
				7		**53**	**65.0**				
	AHU2	8AM - 9PM	Mon, Tue, Wed	3	2	6				74	85
		9AM - 9PM	Thu	1	2	2					
		9AM - 10PM	Fri	1	2	2					
		7AM - 9PM	Sat	1	12	12					
		6:30AM - 10:30PM	Sun	1	7	7					
				7		**29.0**	**65.0**				

5.4 Glossary

actual cost	Actual energy cost taken directly from utility bill.
actual savings	Savings derived through the Metrix™ program; baseline less actual costs. Positive actual savings indicate utility costs have been reduced after adjusting for weather and other variables in dollars.
balance point	(HtgDD), the outdoor temperature below which space heating is required or (ClgDD), the outdoor temperature above which space cooling is required.
baseline	The adjusted, tuned pre-retrofit bills (usually 1 year) used to compare to post-installation usage in order to calculate savings.
baseline cost	Cost calculated for the baseline using current rates.
billed dollars	Amount billed from utility company.
bill matching	Adjustment made by Metrix™ to account for differing number of days in the billing period before calculating cost avoidance.
cost avoidance	The difference between the baseline cost and the actual or SimActual cost in dollars.
degree-day	Unit representing one degree of difference between the balance point selected and the average temperature during one day.
EER	Energy Efficiency Ratio of cooling equipment defined as the cooling effect in BTU's divided by the power use in watts
guarantee period	Time period specified in contract for which Honeywell will guarantee energy savings.
guarantee year	Number identifying for which year the review is performed based on the number of years the guarantee is in effect.
guaranteed savings	Those savings Honeywell promises the customer through the use of maintenance programs, retrofits, upgrades and energy management systems.
HVAC	Industry standard abbreviation for Heating, Ventilating and Air Conditioning.
HtgDD/ClgDD	HtgDD = Heating degree-days ClgDD = Cooling degree-days
kW	Kilowatt - a unit of electrical power, equal to 1000 watts.

kWh	Kilowatt hours - a unit of electrical energy or work, equal to that done by one kilowatt acting for one hour.
modification	An allowance for changes in the facility which affect utility usage that occur while tracking the performance of a meter. Modifications correct both the actual and baseline usage and cost for meters.
pre-installation	Time period (start month and stop month, typically one year's time) that is used as a benchmark for comparison which consists of all energy bills applicable to the retrofit.
R^2	A measure of how well the independent variable in a regression can explain changes in the dependent variable. An R^2 = "1.0" indicates a perfect correlation.
rate tariff	Actual amount the utility company charges per unit of energy or demand; used by Metrix™ to calculate utility costs for the SimActual & Baseline scenarios.
reference year	The actual usage for designated baseline period.
review period	Time period for which savings are reported.
runtime adjustment	Adjustment made for those hours equipment has run beyond the operating hours specified in the contract.
simactual	The total cost for the billing period as calculated by Metrix™.
weather adjustment	Adjustment made by Metrix™ for weather variations using degree days.

Honeywell

Honeywell has presented the Cost Avoidance Review for Town of Mamaroneck, Contract No. 40143657. This report details savings results for Year 2 and indicates energy and operational cost avoidance of $260,461 for the year. The cumulative total cost avoidance through the end of Year 2 is $518,687, as compared to the cumulative total guarantee per the contract of $590,978.

This receipt provides a permanent record of the review and status of acceptance of this report. The signatures herein are required prior to continuing on to the next phase of the review process. If the results are not agreed upon, CUSTOMER has forty-five (45) days from the delivery date of this report to reply in writing to Honeywell International Inc., Energy Analyst, 5006 103rd Street, Lubbock, TX 79424. Otherwise, the cost avoidance results will be deemed accepted.

I,_____, have reviewed the contents of this review with the authorized representative(s) of Honeywell International Inc. on _____. All information contained herein is clear in meaning to me and as such as a representative of CUSTOMER, I agree to take the following action with respect to this review:

☐ ACCEPT THE REVIEW AS PRESENTED AND REQUEST A CHECK FOR $40,110 FOR YEAR 2

Mail check to: _____

☐ ACCEPT THE REVIEW AS PRESENTED AND REQUEST SERVICES AND/OR MAINTENANCE CREDITS EQUAL TO $40,110.

Service address: _____

☐ DO NOT ACCEPT THE REVIEW AND REQUEST THE FOLLOWING ACTION(S) BE TAKEN AS INDICATED BELOW:

_____

_____

_____

Received by:

_____
Name (please print)

_____
Signature

_____
Date

Presented by:

_____
Name (please print)

_____
Signature

_____
Date