City of Biddeford
Finance Committee
June 19, 2018 5:00 PM Council Chambers

1. **Call to order**
2. **Approval of the Minutes**
   2.1. June 5, 2018 Finance Committee Meeting Minutes
   6-05-2018 Finance Committee Minutes.rtf
3. **Signing of the expenditure warrant**
4. **Discussion/Approval**
   4.1. Renewal of Agreement with Media Consultant/Kenneally and Company
   6-19-2018 Media Consultant-ORDER.doc
   6-19-2018 Media Consultant-MEMO.docx
   6-19-2018 Media Consultant-Kenneally Letter.docx
   6-19-2018 Media Consultant-Expenses Breakdown.xlsx
   4.2. Streetlight Conversion Project
   Finance Committee Briefing Memo - Streetlight Conversion
   PowerPoint - Streetlight Conversion Presentation (Council)
   Interim Streetlight Conversion Report - Realterm Energy
   Draft Order 2018.61 Streetlight Conversion
   4.3. Approval of the Funding Mechanism for the City's Lease Purchases
   6-19-2018 Tax-Exempt Lease Purchase Bid Approval 2018.pdf
5. **Other Business**
6. **Adjournment**

City of Biddeford

Finance Committee Meeting Minutes

June 5, 2018

The meeting was called to order at 5:01 pm by the Chair, Council President John McCurry.

Present: Chair, Council President John McCurry, Mayor Alan Casavant, Councilor Mike Ready, City Manager James Bennett, Finance Director Cheryl Fournier, City Clerk Carmen Morris, and members of the Capital Projects Committee.

Excused: Councilor Stephen St. Cyr.

Adjustment to the Agenda
No adjustments to the agenda.

Approval of Minutes
Motion by Councilor Ready to approve the Minutes of May 15, 2018, seconded by Mayor Casavant.
Vote: unanimous.
Motion carried 3-0.

The expenditure warrant was available for review and signature.

Discussion/Approval

Award of Contract for Pavement Marking Program/Poirier Guidelines
Motion by Councilor Ready to recommend awarding the contract to Poirier Guidelines for the Pavement Marking Program, seconded by Mayor Casavant.
Discussion: Councilor Ready questioned the bids. Public Works Director, Jeff Demers, did not have an explanation for the difference.
Vote: unanimous.
Motion carried 3-0.

Authorization/Contract for South Street Sewer Separation Project/Pratt and Sons, Inc. of Mechanic Falls, Maine
Motion by Councilor Ready to recommend awarding Pratt and Sons, Inc. for the South Street Separation Project, seconded by Mayor Casavant.

Discussion: Dan Boucher from the Capital Projects Committee asked where are we in the process for this project.
City Engineer, Tom Milligan gave a brief summary.
Vote: unanimous.
Motion carried 3-0.

Authorization/Re-location and Re-cabling of Radio Tower at Biddeford Pool/Funds from Contingency

Motion by Councilor Ready to authorize the use of Contingency funds for the re-location and re-cabling of the Radio Tower at Biddeford Pool, seconded by Mayor Casavant.

Discussion: Councilor Ready asked about the need of using Contingency funds for this item.
The City Manager explained using Department funds will probably cause an overdraw in their accounts.

Motion by Councilor McCurry to equally charge the Police, Fire and Public Works Departments to come up with the $10,000, seconded by Councilor Ready.

Discussion: Councilor McCurry explained he will not support taking the $10,000 out of the Contingency Fund.
Mayor Casavant asked the City Manager for pros & cons doing it this way.
The City Manager explained it doesn't really matter. It has been suggested they could take $2,000 out of the School Budget. He would rather charge it to one account so when they look at the budget in a year or two, there is history of where the money was taken.
Vote In favor: 2
Opposed: 1 (Mayor Casavant)
Motion carried 2-1.

Approval/Abatement of Delinquent Taxes - 16 Lind Avenue
Motion by Councilor Ready to recommend the abatement of delinquent taxes for 16 Lind Avenue, seconded by Mayor Casavant.

Discussion: Councilor Ready asked why this gentleman is responsible for the old tax debt.
Finance Director, Cheryl Fournier, explained the tax is attached to the property.
Vote: unanimous.
Motion carried 3-0.

Other Business
Councilor McCurry expressed his appreciation for the financials that came out this month noting they were early and with the additional notes.

Motion to adjourn made by Councilor Ready, seconded by Mayor Casavant.
Vote: unanimous.
Motion carried 3-0.
Adjourned at 5:15 pm.

2018.60 **IN BOARD OF CITY COUNCIL…JUNE 19, 2018**

BE IT ORDERED, that the City Council of the City of Biddeford does hereby approve the renewal of a contract with Kenneally and Company for 2018-2019 Marketing and Advertising.

CITY OF BIDDEFORD
ECONOMIC and COMMUNITY DEVELOPMENT DEPARTMENT

Mathew Eddy
Director, Planning and Development
205 Main Street
Biddeford, ME 04005
Mathew.Eddy@biddefordmaine.org
207-282-7119

To: Biddeford City Council
From: Mathew Eddy

Date: June 13, 2018

Subject: Kenneally Associates: 2018-19 Media Contract

Attached, please find the new contract for Kenneally Associates for the next fiscal year. The proposal is tweaked quite a bit from last year. We will be doing more internet based marketing, using, for examples “banners” much more than we have in the past (and less television). WE have also been more targeted then we have in the past, focusing our marketing to specific population groups and the social media they are most likely to utilize. We will also coordinate more so with surrounding Biddeford groups to create greater leverage with our marketing dollars. The attached spread sheet also demonstrates that in more detail, showing where we intend to invest those dollars to purchase time. At the same time, we will continue to use some traditional media site, including Mainebiz and MEREDA.

May 1, 2018

Mathew Eddy
City of Biddeford
205 Main St.
Biddeford, ME 04005

Re: Proposal for 2018-2019 Marketing and Advertising

Dear Mat,

Thank you for the opportunity to continue working on the marketing and advertising on behalf of the City of Biddeford. Here are the top 5 reasons to outsource your marketing and advertising:

1. **In-house staff costs more than their wages.** The true cost of keeping in-house marketing staff includes payroll taxes, workers compensation, insurance, paid holidays, sick time and vacations, professional memberships, licenses and other benefits. Use your employees to do what they know best—support the economic development of the City of Biddeford.
2. **Marketing tools can be expensive.** For marketing professionals, computer hardware with adequate hard drive storage, graphics and office software and online tools can be very expensive, running into the thousands of dollars.
3. **Office space.** Furniture, telephone, and supplies are another added expense.
4. **Training** on new software and current marketing trends/ practices is necessary to keep the organization at the front of the marketing curve.
5. **Expertise.** Marketing expertise involves many skills. From building a brand identity to creativity in the visual arts and buying media strategically, the team that does your marketing has a combined skill set that far exceeds that of a small, in-house marketing department.

City of Biddeford will contract with Kenneally and Company as its marketing and advertising agency. We will meet once per month to maintain focus on the needs of the City of Biddeford and provide marketing support for marketing opportunities that arise and offering an integrated approach to support other marketing efforts on behalf of the city.

Investment: $3,000.00 per quarter, effective July 1, 2018-June 30, 2019 (plus the cost of the agreed advertising to outside vendors.)

July 1, 2018	$3,000.00
October 1, 2018	$3,000.00
January 1, 2018	$3,000.00
April 1, 2019	$3,000.00

I will pass along any agency discounts offered by media outlets to give the City of Biddeford the best net pricing.

Sincerely,

Jennifer Kenneally

1. **Branding the City for Economic Development:** The City had been known to be the stinky, rundown city with MERC garbage incineration plant located downtown. Since MERC was torn down, people have invested and planned to invest more than 100,000 million dollars into the downtown area. This growth rate is rapid and requires strategic agility by the City of Biddeford. The City and its Economic Development Department must continue to promote the growth and to support and facilitate the changes that are taking place.
2. **A place to live, work, and play:** Biddeford has affordable residential homes and apartments for rent. This fits nicely with growth from new businesses coming into the City, as well as existing businesses choosing to stay. Southern Maine Health Care, UNE, and businesses in the industrial park all offer well paying jobs in the community. Tiger pride is as strong as it has ever been with academic, recreation, sports, and many enjoyable activities available.
3. **Tourism:** Tourism continues to be an opportunity to support local companies while offering visitors and locals a diverse selection of places to eat, drink, and experience all that the area offers.

The City of Biddeford collaborates with several non-profit groups, as well as, businesses in the community. This collaboration works on many levels, including:

- **Each non-profit helps to fill a need**: The Biddeford + Saco Chamber of Commerce, Heart of Biddeford, Engine, Biddeford Mills Museum, City Theater, MacArthur Library, Community Bicycle Center, YMCA, Ever After Mustang Rescue, and Eastern Trail Alliance are just a few organizations that serve our community and its people admirably. These organizations have large followings and a strong connection to the community, so they work to enhance the quality of life for Biddeford residents and visitors.
- **The business community:** Many restaurants, breweries, distilleries, shops, and manufacturers have amazing followings and serve as ambassadors for Biddeford. In many of their advertising campaigns and social media posts, they reference the difference that comes with doing business in Biddeford, Maine!
- **Visibility through UNE:** UNE has brought in students (and their families) from all over New England. This supports New England-wide growth, enabling Biddeford to reach a larger audience. Biddeford Pool has become a top destination and if you are lucky enough to be a Biddeford resident, the Pool,

Fortunes Rocks, Hills Beach, and Granite Point offer year-round oceanfront pleasure.

Communications plans for 2018-2019:

Market segmentation and targeting: Each generation has its media preferences. This includes:

Baby Boomers Generation (Born between 1946-1964): This generation is not taking to the rocking chair for their retirement years. They are enjoying life after the children leave their home. They may be downsizing and taking up exercise and hobbies, which increases their longevity. To reach this generation:

- Alan has a monthly e-newsletter blast that can be sent out
- Facebook offers a great way to connect (this generation still uses Facebook to keep up with family and friends activities) Heart of Biddeford & the weekly e-newsletter
- Mat and the Economic Development team are producing a monthly show for the local news access channel
- Broadcast television and Spectrum Cable advertising (they have not "cut the cord" yet and are not seeking alternative methods of watching their local news/favorite television shows)

Generation X (Born between 1965 and 1980): This generation is entrepreneurial, they want to save the neighborhood not the world. They have a desire to learn, explore and make a contribution. For Gen X'ers:

- Alan has a monthly e-newsletter blast that can be sent out
- Facebook is a great way to connect (Heart of Biddeford)
- Maine Biz ads twice a year will reach this demographic (entrepreneurial, reads local magazine to keep up to date on trends in the market)
- Local magazine ads, such as Sunrise Guide reach this generation which is health conscience, buys local, and supports local businesses

- Updating the City website with current information as a go-to resource
- OTT: Over-the-top is a media distribution practice that allows streaming content

Generation Y/Millennials (Born between 1981-2000): This generation was raised with high academic expectations, but also nurtured by omnipresent parents. People in this generation are optimistic and focused. This generation schedules everything. They prefer to work in teams and prefer digital information, as this is what they grew up on. Millennials view the world as a 24/7 place and require immediate access to information. They do not live to work and prefer a more relaxed atmosphere. The plan to engage Millennials involves:

- Online advertising will reach this generation
- Instagram, Snapchat, and Twitter are the 3 top social media sites that they use
- YouTube video pre-roll (watch videos to learn everything from video gaming to academic)
- Outreach to networking and co-working office shared spaces
- OTT (Streaming content)

Selective collaboration: The City of Biddeford will be selective in its collaborations with other cities and organizations. This may involve:

- Leveraging its marketing investment in organizations, such as the Biddeford + Saco Chamber of Commerce and the Heart of Biddeford.
- Combining its marketing investments selectively with investment from others, such as the City of Saco
- Seeking to complement, rather than to duplicate the marketing efforts of for-profit, nonprofit, and civic organizations that also aim to benefit local and regional economic development

In summary, the goal for 2018-2019 communications plans is the following;

- Maximize the advertising money available to reach all 3 age groups
- The messaging will be about collaboration, people, resources and community
- Video and pictures will capture the essence of Biddeford and can be shared with the City of Biddeford and its partners

Thank you for the opportunity. I am looking forward to this campaign and watching Biddeford grow!

Sincerely,

Jennifer Kenneally

Medium	What	Creative	Group
Maine Biz	Full Page	Downtown: Biddeford is exporting excellence	Business Professionals
Spectrum Online	850	Entrepreneur, Events,Foody	Age 25-40
Cable TV	700	Entrepreneur, Events,Foody	Age 41-65
Sunrise Guide Healthy Green Maine Visitors Guide	Half Page	Activities	Ages 35-65
Sunrise Guide Coupons Sponsorship	Half Page	Food/Downtown	Ages 35-65
Miscellaneous	TBD		
Total Budget			
Consultation Services			
Kenneally and Co			
Trade Shows			
Mereda			Real Estate Developers
Build Maine			Business Professionals
Maine Start Up Week			Entrepreneurs

Biddeford Airport	2-May	10-May
Rumerys Boatyard	10-May	

Geography	Deliverable	Month	July	August	September	October
State of Maine	34,000 readers, ages 40-59 professionals		$ 2,500.00			
25 mile radius of Biddeford	100,000 impressions per month			$ 850.00	$ 850.00	$ 850.00
Portland and York County Zones	100,000 impressions per mont, approximately 400 commercials per month			$ 700.00	$ 700.00	$ 700.00
State of Maine	33,000 print, 140,000 readers		$ 795.00			
State of Maine	8,000 print, 160,000 impressions					
			$ 200.00	$ 200.00	$ 200.00	$ 200.00
			$ 3,000.00			$ 3,000.00
					$ 1,000.00	

November	December	January	February	March	April	May	June	Budget
		$ 2,500.00						$ 5,000.00
		$ 850.00	$ 850.00	$ 850.00	$ 850.00	$ 850.00	$ 850.00	$ 8,500.00
$ 700.00	$ 700.00	$ 700.00	$ 700.00	$ 700.00	$ 700.00	$ 700.00	$ 700.00	$ 8,400.00
								$ 795.00
		$ 795.00						$ 795.00
$ 200.00	$ 200.00	$ 200.00	$ 200.00	$ 200.00	$ 200.00	$ 200.00	$ 200.00	$ 2,400.00
								$ 25,890.00
		$ 3,000.00			$ 3,000.00			$ 12,000.00
								$ 12,000.00
		$ 1,000.00						$ 1,000.00
							$ 1,000.00	$ 1,000.00
								$ 1,000.00
								$ 3,000.00

City of Biddeford
Chief Operating Officer/Technology Dept/IPP
P.O. Box 586 • 205 Main Street
Biddeford, ME 04005
Phone: (207) 571-0032 • Fax: (207) 571-0656

Briefing Memo

TO: Council President John McCurry and Members of the Finance Committee

CC: James Bennet, City Manager
Cheryl Fournier, Finance Director

FROM: Brian S. Phinney, COO/Technology/IPP

DATE: June 14, 2018

RE: Request for Authorization to Proceed with Acquisition and Conversion of Streetlights

In January of 2017, the City began reviewing the feasibility of acquiring and converting to LED technology the community streetlight inventory. The process was authorized under Order 2017.4 with the stipulation that project costs and project finance details be presented to the City Council for review and approval under a separate Order. That milestone has been reached and we now seek Council approval to proceed with acquisition and conversion of street lighting to LED technology. Prior to submission to Council we are seeking a recommendation from the Finance Committee.

An overview of the streetlight conversion project is planned for the night of June 19th as part of the regular meeting under *Presentations* to provide the Council and the public with an additional level of detail prior to discussing this item under Order of the Day. A copy of the PowerPoint presentation is included as part this packet for your reference along with the *Interim Report for the City of Biddeford LED Streetlight Conversion (*Interim Report*)*, dated June 13, 2018 and the draft Order.

The City has been working with Realterm Energy US, LP (Realterm) over the past 15+ months to obtain sufficient data to determine the financial viability of acquiring street lighting for the purpose of convert the inventory to LED technology. The results of the analysis indicate that significant savings can be realized by implementing the conversion. As referenced in Table 4.3 of the Interim Report, in year on the net savings is in excess of $156,000 per year.

Staff is seeking Finance Committee authorization to proceed with the project, financed through a lease purchase instrument for a period of no more than 10 years (120 months). Due to the regulatory structure within the State of Maine, the conversion, if authorized, will be performed in several steps.

1. Realterm has inventoried approximately 107 fixtures belonging to the Biddeford School Department, Biddeford Ice Arena, Biddeford Alumi Assoc., and ShuttleBus-Zoom. The City has the option of offering each of these entities the ability to join the project subject to applicable financing rules and cost accounting provisions. If the City chooses not to extend an invitation to these entities or if one or more entities chooses not to participate if offered, the total fixture inventory and project cost will be reduced proportionally.

2. The City will obtain an acquisition cost from Central Maine Power Company for the streetlight fixtures. The City is required to "buyout" the residual value of the fixtures, subject to a final reconciliation after the conversion is complete. The current buyout estimate of $265,865 is based on a 2017 CMP estimate, which at this point is conservatively high. Each year the residual value goes down. CMP is currently preparing an updated buyout number, which is expected to be lower than the 2017 estimate simply due to depreciation. It is important to note that acquisition of the fixtures is the first step in the conversion process with payment due at the time of acquisition. Of equal importance is the understanding that once payment is made, the City is responsible for maintenance of the existing fixtures. The City has the ability to respond to repairs on an as needed basis through the market place or sign a maintenance agreement with Realterm to cover the pre-conversion period.

3. Once the fixtures are acquired, Realterm will finalize the lighting plan, currently based on a photometric analysis, design standards, and a like-for-like replacement scheme. The fixtures will be ordered based on the analysis. Vendors and a range of fixtures have already been selected through a multi-community bid process coordinated by Realterm. Area a site specific fixture modifications can be made as part of the process although an cursory review has not indicated any significant community issues. Streetlight fixtures have also been selected to be smart grid compatible, meaning at some future point a module may be purchased/installed to allow for any number of smart grid technologies.

4. Once the fixtures have been ordered, the City will be entered into the construction queue and conversion will begin in earnest.

5. At the end of the construction period Realterm will perform a final reconciliation of streetlights based on CMPs buyout estimate and actual field conditions. Realterm will work with CMP to resolve any discrepancies.

6. Upon agreement of the final project cost, the City will obtain lease purchase financing for the project through the Finance Dept., and will own the fixtures from that point forward.

The financing will allow for repayment of any advances, and moving forward the city will begin to recoup net savings in year one in excess of $150,000 per year.

Based on the results of the analysis, staff recommends moving forward with the conversion process.

Update:
Status of
Community Street Light Project

Brian S. Phinney, COO

June 19, 2018

Background

- Legislative work 2002 through 2013
- PUC work 2013-2016
- Council authorization to enter into an agreement with Realterm 01/17/17
- Realterm completed GIS inventory 2017
- Realterm released group fixture RFP to increase buying power (Falmouth, South Portland, Biddeford, Rockland)
- Realterm completed Interim Conversion Report 2018

Where we are

- **Process Steps**
  - GIS Survey ✓
  - Lighting Design ✓
  - Manufacturer Selection ✓
  - Cash flow analysis ✓

  - Decision Point – Go/No Go

  - Extend offer to Schools, Arena, Alumni, BSOOB Transit?
  - Procurement Existing Fixtures (CMP)
  - Procurement Replacement Fixtures
  - Installation
  - Final Audit
  - Lease Purchase Agreement

Cash Flow Analysis

CAPITAL COST	TERM (YEARS)	INTEREST RATE	ANNUAL PAYMENT	COST OF BORROWING
$1,650,449	10	3.69%	$200,357	$353,125

Cash Flow Analysis

Annual Savings over 10-year Period for a 10-year loan period with 3.69% interest rate

	Payments ("Outlays") by City ($)				Project Savings ($)		
Year	**Total Annual Financing Payments**	**Maintenance Services**	**Total (1)**	**Annual Utility Savings**	**Cumulative Utility Savings**	**Annual Net Savings**	**Cumulative Net Savings**
1	$200,357	$36,008	$236,366	$392,667	$392,667	$156,301	$156,301
2	$200,357	$36,728	$237,086	$404,447	$797,113	$167,361	$323,662
3	$200,357	$37,463	$237,820	$416,580	$1,213,693	$178,760	$502,422
4	$200,357	$38,212	$238,570	$429,077	$1,642,771	$190,508	$692,929
5	$200,357	$38,976	$239,334	$441,950	$2,084,720	$202,616	$895,545
6	$200,357	$39,756	$240,113	$455,208	$2,539,929	$215,095	$1,110,640
7	$200,357	$40,551	$240,908	$468,864	$3,008,793	$227,956	$1,338,596
8	$200,357	$41,362	$241,719	$482,930	$3,491,723	$241,211	$1,579,807
9	$200,357	$42,189	$242,547	$497,418	$3,989,142	$254,872	$1,834,679
10	$200,357	$43,033	$243,391	$512,341	**$4,501,483**	$268,950	**$2,103,629**
Total	**$2,003,573**	**$394,280**	**$2,397,853**	**$4,501,483**	**N/A**	**$2,103,629**	**N/A**

Back to the Decision Point

- Include other entities or not?
  - If not included, deduct from total
- Purchase streetlights from CMP
- Place order for new fixtures (5% contingency included)
- Get in the installation queue
- Perform conversion
- Final reconciliation with CMP
- Finalize lease purchase agreement

Details: Procurement (CMP)

- Current streetlights owned by CMP
- "Leased" to community through tariff system
- Typical 15-year life
- Inventory = 2,343 fixtures
  - 2,084 Cobra
  - 258 Decorative
- Buyout cost due at acquisition ($265,839 as high)
- Triggers ability to convert to LED
- Plan for interim maintenance of fixtures

Details: Procurement (New Fixtures)

- Fixtures selected like-for-like
- All smart grid capable (module control)
- Group RFP
  - Rockland, South Portland, Falmouth, Biddeford
  - Increased buying power
- Opportunity for adjustments to numbers and locations
- Upgrade based on real numbers
- Place procurement order
- Enter installation queue

Next Step

Council authorization to proceed….

Questions

Interim Report

for the City of Biddeford

LED Streetlighting Conversion

June 13, 2018

O-0826

Primary Contact
Paul Vesel, Director, Business Development – NE USA
201 West Street, Suite 200, Annapolis, MD 21401
(413)-695-0045
pvesel@realtermenergy.com

TABLE OF CONTENTS

June 12, 2018

The City of Biddeford
205 Main Street
Biddeford, ME 04005

Dear Mr. James Bennett,

We have conducted a preliminary analysis of your street light system to reflect the proposed upgrade to LEDs based on Field Audit Data collected. The street light upgrade stands to provide approximately 79% in yearly operating cost savings.

The estimated total project cost is approximately $1,650,449 (including estimate acquisition cost from Central Maine Power), with a projected payback of 5.3 years (including Financing costs). The enclosed interim report includes an analysis based on preliminary LED replacements, however, the project cost and savings presented in this report will be finalized during the completion of the Investment Grade Audit.

We look forward to moving your project to the next phase. We will arrange for a conference call to discuss the contents of this report in the next few days, but until then please feel free to contact us should you have any questions.

Yours truly,

Sean Neely, President
sneely@realtermenergy.com

1. EXECUTIVE SUMMARY

Technical / Environmental Assessment	Title	City of Biddeford LED Street Light Conversion	
	Baseline	Qty HID Cobrahead Fixtures:	2,084
		Qty HID Flood/Decorative Fixtures:	258
		Total Demand:	336.2 kW
		Annual Operating Hours:	4,260
		Annual Energy Consumption:	1,432,135 kWh
	Technology Employed	Smart ready LED Fixtures	
	Technology Provider(s)	Eaton Cooper, Acuity Brands	
	Technical Specifications	7-PIN, Smart ready fixtures Color temp: 3000K; 4000K for some downtown Decoratives Average life ≥ 100,000 hours CRI ≥65, IP ≥ IP 65	
	Fixture Warranty	10 years	
	Annual Operating Cost Savings	$359,134 (79%)	
Financial Assessment	Financing Scheme	Lease Purchase	
	Estimated Project Cost	$1,384,610	
	Estimated Acquisition Cost	$265,839	
	Estimated Total Project Cost (RTE & Acquisition Cost)	$1,650,449	
	Project Reference Period	23 Years	
	Payback Period (including Financing costs)	5.3 Years	
	Payback Period (excluding Financing Costs)	4.4 Years	

(1) – High Intensity Discharge

(2) - Acquisition Cost from CMP is estimated and is included for analysis purpose only

(3) – Fixture Unit Price does not include the acquisition cost

2. GPS MAPPING

RealTerm Energy conducted a complete GIS inventory of the City of Biddeford's street lights and used the information derived from this review to develop a detailed picture of Biddeford's current street lighting network which includes the following:

- Accurate count of all fixtures and fixture types
- Wattage of each existing fixture
- Length of fixture arms, fixture heights, setbacks from roadway, pole spacing, etc.
- Exact GPS coordinates
- Road classifications
- Utility pole ID numbers (when available)

A detailed breakdown of the revised lighting inventory, obtained from the GIS/GPS audit is presented below:

2.1. GPS Inventory (Actual)

UTILITY	TYPE	SYSTEM WATTAGE	QTY
COBRAHEAD FIXTURES			
CMP	Cobrahead - HPS 50W	65	20
CMP	Cobrahead - HPS 70W	95	1,642
CMP	Cobrahead - HPS 100W	130	42
CMP	Cobrahead - HPS 150W	195	136
CMP	Cobrahead Type 2 - HPS 150W	195	2
CMP	Cobrahead - HPS 200W	250	1
CMP	Cobrahead - HPS 250W	300	208
CMP	Cobrahead Type 2 - HPS 250W	300	5
CMP	Cobrahead - HPS 400W	464	28
Subtotal (Cobrahead)			**2,084**

UTILITY	TYPE	SYSTEM WATTAGE	QTY
DECORATIVE FIXTURES			
CMP	Decorative - Acorn Post Top - HPS 100W	130	2
CMP	Decorative - Acorn Post Top Type 3 - HPS 100W	130	3
CMP	Decorative - Acorn Post Top Type 1 - HPS 175W	210	66
CMP	Decorative - Bell Downlighting - HPS 70W	95	14
CMP	Decorative - Box Top Type 3 - HPS 100W	130	14
CMP	Decorative - Box Top Type 4 - HPS 100W	130	9
CMP	Decorative - Box Top Type 3 - HPS 250W	300	12
CMP	Decorative - Box Top Type 2 - HPS 400W	465	2
CMP	Decorative - Box Top Type 3 - HPS 400W	465	32
CMP	Decorative - Cube Post Top - HPS 400W	465	10
CMP	Decorative - Globe Post Top Type 1 - HPS 100W	130	1
CMP	Decorative - Other Type 2 - HPS 100W	130	1
CMP	Decorative - Other Type 4 - HPS 100W	130	8
CMP	Decorative - Other Type 4 - HPS 400W	465	10
CMP	Decorative - Victorian Lantern Post Top - HPS 100W	130	10
CMP	Floodlight - HPS 250W	300	40
CMP	Floodlight - HPS 400W	465	12
CMP	Sentinel - HPS 70W	95	2
CMP	Sentinel - HPS 100W	130	9
CMP	Sentinel - HPS 250W	300	1
Subtotal (Decorative)			**258**

3. PRELIMINARY LED REPLACEMENT INVENTORY

Our team has developed an initial LED assessment for illustrative purposes. For any assumptions made regarding the inventory ownership, please refer to Section 5: *Calculation Assumptions*, of this report. For the analysis presented, we have used Eaton and Acuity LED fixtures with comparative light outputs for all existing HPS fixtures recorded in the inventory. This analysis is only a starting point, and demonstrates the energy savings that are possible using LED technology while deploying industry standard roadway practices.

3.1. LED Replacements (one-for-one, Post-Upgrade)

UTILITY	TYPE	WATTAGE	QTY
	COBRAHEAD FIXTURES		
CMP	31W_Eaton_Archeon	31	1,299
CMP	40W_Eaton_Archeon	40	405
CMP	64W_Eaton_Archeon	64	136
CMP	64W_Eaton_Archeon_NewArm	64	2
CMP	94W_Eaton_Archeon	94	209
CMP	94W_Eaton_Archeon_NewArm	94	5
CMP	148W_Eaton_Archeon	148	28
Subtotal (Cobrahead)			**2,084**

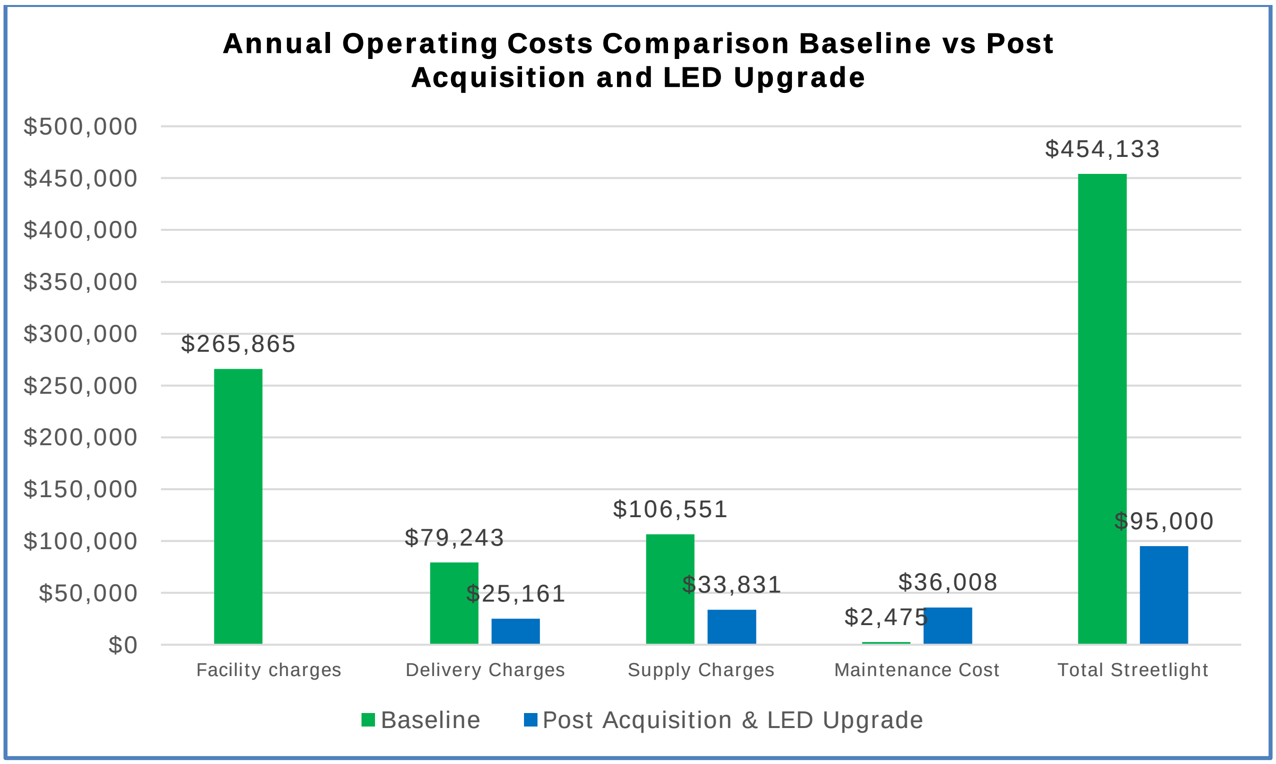
UTILITY	TYPE	WATTAGE	QTY
	DECORATIVE FIXTURES		
CMP	38W_Acuity_MSPL2	38	14
CMP	39W_Acuity_GVD2	39	31
CMP	39W_Acuity_GVD2Round	39	1
CMP	39W_Acuity_W4GLED	39	1
CMP	43W_Acuity_WL1C	43	12
CMP	46W_Acuity_247L	46	10
CMP	48W_Acuity_ATB0	48	31
CMP	71W_Acuity_ATB0	71	64
CMP	71W_Acuity_ATB0_BR1056	71	2
CMP	72W_Acuity_W4GLED	72	8
CMP	119W_Acuity_ACP0LED	119	44
CMP	60W_Acuity_GVD2	60	3
CMP	60W_Acuity_GVD2Cage	60	24
CMP	60W_Acuity_GVD2Cage (TBD)	60	13
Subtotal (Decorative)			**258**
TOTAL			**2,342**

3.2. Expected Savings

Expected Savings – Complete Inventory (City Budget and Option)

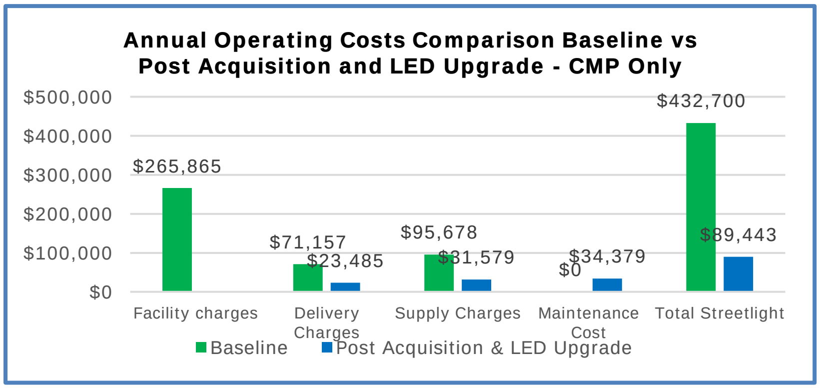
CURRENT STATUS	BEFORE UPGRADE	Post-Acquisition & LED Upgrade	VARIANCE	PERCENT
Fixture Quantity	**2,342**	**2,342**		
Annual Electricity Consumption (kWh)	**1,432,135**	**454,721**	**977,414**	**68%**
Facility charges	$265,865	$0	$265,865	N/A
Delivery Charges	$79,243	$25,161	$54,082	68%
Supply Charges	$106,551	$33,831	$72,720	68%
Maintenance Cost	$2,650	$36,008	($33,358)	N/A
Total Streetlight	**$454,308**	**$95,000**	**$359,308**	**79%**
Average Annual Cost per Fixture	**$194**	**$41**	**$153**	**79%**

(1) In the 'BEFORE UPGRADE' scenario above, we have assumed that 106 Outdoor HID fixtures are not CMP Owned and Maintained (SL-Full Service Lighting). For these fixtures we have assumed that existing maintenance cost are $25/fixture/year.



Expected Savings (City Budget)

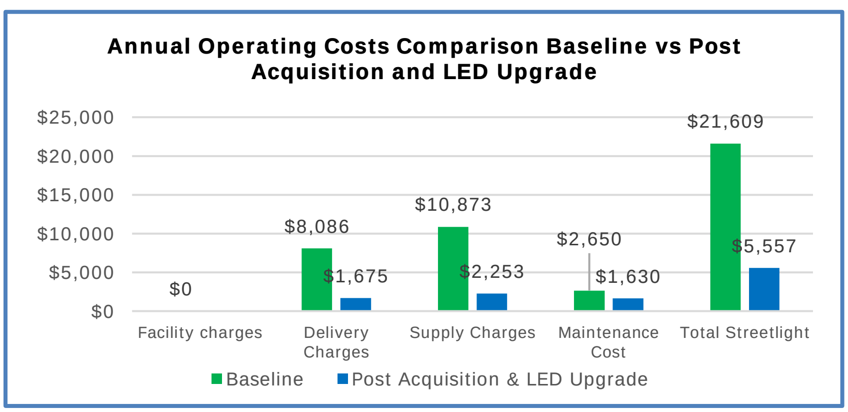
CURRENT STATUS	BEFORE UPGRADE	Post-Acquisition & LED Upgrade	VARIANCE	PERCENT
Fixture Quantity	**2,236**	**2,236**		
Annual Electricity Consumption (kWh)	**1,285,996**	**424,445**	**861,551**	**67%**
Facility charges	$265,865	$0	$265,865	N/A
Delivery Charges	$71,157	$23,485	$47,671	67%
Supply Charges	$95,678	$31,579	$64,099	67%
Maintenance Cost	$0	$34,379	($34,379)	N/A
Total Streetlight	**$432,700**	**$89,443**	**$343,257**	**79%**
Average Annual Cost per Fixture	**$194**	**$40**	**$154**	**79%**



Expected Savings (Option – Others Budget)

(Biddeford Schools, Biddeford Ice Arena, Biddeford Alumni Assoc., and Shuttle Bus-Zoom).

CURRENT STATUS	BEFORE UPGRADE	Post-Acquisition & LED Upgrade	VARIANCE	PERCENT
Fixture Quantity	**106**	**106**		
Annual Electricity Consumption (kWh)	**146,139**	**30,276**	**115,863**	**79%**
Facility charges	$0	$0	$0	N/A
Delivery Charges	$8,086	$1,675	$6,411	79%
Supply Charges	$10,873	$2,253	$8,620	79%
Maintenance Cost	$2,650	$1,630	$1,020	39%
Total Streetlight	**$21,609**	**$5,557**	**$16,051**	**74%**
Average Annual Cost per Fixture	**$204**	**$52**	**$151**	**74%**



4. PROJECT COSTS

In a Lease Purchase option, or a “Design, Upgrade and Transfer”, the City arranges the financing of the project.

4.1. Project Costs, Savings and Investment Return

Project Costs, Savings and Investment Return – Complete Inventory

PROJECT COSTS	Total	Average Unit
Number of Fixtures	**2,342**	
LED Lighting Upgrade Project Cost	$1,384,610	$591
Acquisition Cost from Utility(1)	$265,839	$119
Total Project Cost	**$1,650,449**	**$705**

(1) Only fixtures owned by CMP are acquired.

The total estimated project cost is inclusive of a 17% RTE margin on the costs for the procurement of fixtures and installation related charges. In addition, the estimated project cost includes a charge of $10.50 per pole for data collection and the preparation of an Investment Grade Audit (IGA).

Project Costs, Savings and Investment Return – City Budget

PROJECT COSTS	Total	Average Unit
Number of Fixtures	**2,236**	
LED Lighting Upgrade Project Cost	$1,295,423	$579
Acquisition Cost from Utility	$265,839	$119
Total Project Cost	**$1,561,262**	**$698**

Project Costs, Savings and Investment Return – Option – Others Budget

(Biddeford Schools, Biddeford Ice Arena, Biddeford Alumni Assoc., and Shuttle Bus-Zoom)

PROJECT COSTS	Total	Average Unit
Number of Fixtures	**106**	
LED Lighting Upgrade Project Cost	$89,186	$841
Total Project Cost	**$89,186**	**$841**

4.2. Financing Scenario (All Inventory)

The following table shows an example of financing based on a representative interest rate (3.69%):

CAPITAL COST	TERM (YEARS)	INTEREST RATE	ANNUAL PAYMENT	COST OF BORROWING
$1,650,449	10	3.69%	**$200,357**	$353,125

4.3. Net Savings Over Loan Period

Annual Savings over 10-year Period for a 10-year loan period with 3.69% interest rate

	Payments ("Outlays") by City ($)				Project Savings ($)		
Year	**Total Annual Financing Payments**	**Maintenance Services**	**Total (1)**	**Annual Utility Savings**	**Cumulative Utility Savings**	**Annual Net Savings**	**Cumulative Net Savings**
1	$200,357	$36,008	$236,366	$392,667	$392,667	$156,301	$156,301
2	$200,357	$36,728	$237,086	$404,447	$797,113	$167,361	$323,662
3	$200,357	$37,463	$237,820	$416,580	$1,213,693	$178,760	$502,422
4	$200,357	$38,212	$238,570	$429,077	$1,642,771	$190,508	$692,929
5	$200,357	$38,976	$239,334	$441,950	$2,084,720	$202,616	$895,545
6	$200,357	$39,756	$240,113	$455,208	$2,539,929	$215,095	$1,110,640
7	$200,357	$40,551	$240,908	$468,864	$3,008,793	$227,956	$1,338,596
8	$200,357	$41,362	$241,719	$482,930	$3,491,723	$241,211	$1,579,807
9	$200,357	$42,189	$242,547	$497,418	$3,989,142	$254,872	$1,834,679
10	$200,357	$43,033	$243,391	$512,341	**$4,501,483**	$268,950	**$2,103,629**
Total	**$2,003,573**	**$394,280**	**$2,397,853**	**$4,501,483**	**N/A**	**$2,103,629**	**N/A**

As can be seen, there are significant net savings from the outset of the project, net of financing costs.

5. CALCULATION ASSUMPTIONS

1. The electricity consumption and cost savings were calculated based on CMP's current rates valid at the date of the preparation of this report. This information can be obtained online from CMP's pricing schedules[1]. Any changes in the data obtained will change the energy consumption and cost savings depicted in this report.

Item	Baseline	Post-Upgrade
Number of Fixtures	2,342	2,342
Fixture Ownership	Central Maine Power	City of Biddeford
Tariff	SL-Full Service Lighting	SL-Delivery-Only Service Lighting
Annual Operating Hours	4,260	4,260
Annual Luminaire, Lamp and Facility Charges	Annual Facility Charges as per SL-Full Service Lighting	N/A
Electricity Delivery Charges	$0.055332 / kWh	$0.055332 / kWh
Electricity Supply Charges	$0.07440 / kWh Constellation New Energy Inc	$0.07440 /kWh Constellation New Energy Inc
Annual Maintenance Cost	Estimated based on $25.00/Fixture/year Only for the City-owned portion	Refer to Maintenance Services in section 4.3

2. The acquisition cost from Central Maine Power provided by the City is included in our calculations for analysis purposes only.

3. After the first year, the energy and maintenance costs' inflation rates are 3% and 2%, respectively.

4. Installation cost is based on labor assumptions and is inclusive of connection and fusing as per Central Maine Power Section 53.7 Terms and Conditions for Municipal-owned street lights[2]. Installation price includes fusing material approved by Central Maine Power. If traffic control services (Flaggers and Police details) are required, this may result in an increase in the projected installation cost.

[1] Central Maine Power Pricing Schedules: https://www.cmpco.com/YourHome/pricing/pricingSchedules/default.html

[2] Central Maine Power Terms and Conditions: Section 53 - Municipal Ownership of Streetlights: https://www.cmpco.com/YourHome/pricing/pricingSchedules/TermsCondition.html

5. The total installation budget includes a 5% contingency to cover the following costs:

   - Elliptical bracket replacement for retrofitted fixtures (aside from the 7 fixtures identified in table 3.1 as requiring new arms)
   - Modification of fixture mounting
   - Relocation of fixtures
   - The replacement of the fixtures near high voltage wires or in the restricted zone

6. RealTerm Energy will work with the City of Biddeford and Efficiency Maine in applying and obtaining any available incentives from the street light upgrade. In order to apply for the incentives, the finalized part numbers (obtained from the photometric designs) will be required. In addition, any additional important information for qualification of the incentive, for example, pole ownership, would have to be verified and confirmed.

6. CONCLUSION AND RECOMMENDATION

RealTerm Energy recommends that the City begins the process of acquiring the street light asset from Central Maine Power while the Investment Grade Audit (IGA) is being finalized. As depicted in this interim report, a City-owned street light upgrade presents the potential for substantial long-term savings to the City. Furthermore, the project can be personalized to meet the City's needs:

1. Schedule and timing of the installation
2. LED Photometric Designs
3. Ability to incorporate LED fixtures that are smart control ready should the City wish to incorporate controls today, or in the future

If the City of Biddeford chooses to move forward with the Design, Upgrade and Transfer option, the total project cost ("City Budget" and "Option – Others Budget"), including acquisition, will be approximately $1,650,449. The City should expect a payback period of approximately 5.3 years (including financing costs). The actual project cost and savings will be revised during the final IGA.

The next steps to start the implementation of this new technology and start seeing energy and maintenance savings are as follows:

- Conference call to review Interim Report with City staff and RealTerm Energy
- Acquisition of street lights from Central Maine Power
- Preparation and review of final IGA report
- Review and apply for any available incentives through Efficiency Maine

City of Biddeford

2018.61 **IN BOARD OF CITY COUNCIL…JUNE 19, 2018**

BE IT ORDERED, that the City Manager is hereby authorized to proceed with procuring and converting streetlights and other exterior fixtures from conventional technology to LEDs (the "Street Light Project") as follows:

1. Extend an invitation to the Biddeford School Dept., Biddeford Ice Arena, Biddeford Alumni Association, and Shuttle Bus-Zoom, to be party to the Street Light Project with each entity being responsible for their respective cost of procurement, conversion, installation, and financing of streetlights should they choose to join;
2. Enter into an agreement with Central Maine Power Company (CMP), in the name of and on behalf of the City of Biddeford, negotiating terms in the best interest of the City of Biddeford, for the procurement of streetlights, not to exceed $265,839.00;
3. Obtain pricing, in conformance with current purchasing rules, for ongoing maintenance of conventional streetlights for the period immediately after procurement from CMP through immediately after conversion to LEDs;
4. Work with Realterm Energy US, LP, as necessary and proper for the completion of the Street Light Project to establish the total cost of conversion with financing based upon a final reconciliation with CMP using the actual number of fixtures converted and the actual program expenses as the basis for the total cost of conversion;
5. Negotiate, enter into, execute, deliver and cause to be performed, and to approve, in the name of and on behalf of the City of Biddeford, a lease purchase agreement and any and all other agreements, instruments, certificates and other documents, upon such terms, conditions, limitations and undertakings, including but limited to prepayment of the lease purchase agreement, as the City Manager determines are necessary and proper for the completion of the Street Light Project, and to grant security interests in the Street Light Project, upon such terms, conditions, limitations and undertakings, as the City Manager determines are necessary and proper for the procurement and financing of the Street Light Project, provided that any lease purchase agreement will be countersigned by both the Mayor and the Treasurer of the City of Biddeford and that (a) the principal amount of such agreement will not exceed $1,650,500.00, (b) the term of such agreement will not exceed one hundred and twenty (120) months, and (c) any obligation of the City of Biddeford to make lease payments pursuant to such agreement shall be subject to annual appropriation by the City Council of the City of Biddeford
6. With advice of bond counsel and to the extent available under the Internal Revenue Code of 1986, as amended (the "Code"), designate the lease purchase

agreement as a qualified tax-exempt obligation under Section 265 of the Code of 1986.

7. Without limiting the foregoing, the City Manager is authorized, in the name of and on behalf of the City of Biddeford, to refinance the lease purchase agreement at a future date, independently or consolidated with other debt instruments of the City, if such refinancing is in the best interest of the City; provided, however, that any such refinancing shall not extend the original term of the lease purchase agreement without prior approval by the City Council.
8. Due to the steps required for the proposed procurement and conversion of the Street Light Project, the City expects to incur and pay costs of the of the Street Light Project prior to entering into any lease purchase agreement and intends to reimburse such costs as part of the lease purchase financing; the City Manager is therefore authorized to establish a debt account for payment of these interim expenses of the of the Street Light Project, with such advances being repaid upon execution of the lease purchase agreement.
9. This order is a declaration of official intent under Treasury Regulation §1.150-2.

NOTE: The savings in utility expenses will exceed the lease purchase expense. The lease purchase may be repaid in full in as little as five and one half (5.5) years if all utility savings are applied to the lease purchase. The lease purchase will be repaid in ten (10) years if savings in excess of the lease purchase payment are reserved for the General Fund.

City of Biddeford

Finance Department - (207) 284-9333

205 Main Street, P O Box 586
Biddeford, ME 04005

Cheryl Fournier, Finance Director

Fax (207) 571-0667

June 15, 2018

To: Finance Committee

From: Cheryl Fournier, Finance Director

Re: Tax-Exempt Lease

The City went out to bid for a tax-exempt lease to replenish the purchase of 13 items. It was emailed to multiple agencies, posted in the newspaper, and posted on the website. The City received eight bids. Attached is the summary of the bids received, see Exhibit A. Also attached is the listing of all the equipment/vehicles that are included in the tax-exempt leasing, see Exhibit B.

All the bids are very competitive. The interest rates are starting to climb, as you see the lowest rates are just over 3%. The recommendation is to approve the Municipal Leasing Consultants bid for the tax-exempt leasing.

Exhibit A

	5 year				7 year				10 year				Total		
	Principal	**Percentage**	**Total Interest Paid**	**Annual Payment**	**Principal**	**Percentage**	**Total Interest Paid**	**Annual Payment**	**Principal**	**Percentage**	**Total Interest Paid**	**Annual Payment**	**Principal**	**Total Interest Paid**	**Annual Payment**
Bank of America	51,071.45	3.11%	4,867.50	11,187.79	376,211.00	3.25%	50,427.03	60,948.29	757,004.00	3.37%	147,250.80	90,425.48	1,184,286.45	202,545.33	162,561.56
Androscoggin	51,071.45	4.02%	6,325.68	11,479.43	376,211.00	4.11%	64,389.10	62,942.88	757,004.00	4.15%	183,440.65	94,044.47	1,184,286.45	254,155.43	168,466.78
Androscoggin with min deposit	51,071.45	3.92%	6,164.47	11,447.19	376,211.00	4.01%	62,764.60	62,710.81	757,004.00	4.05%	178,779.03	93,578.24	1,184,286.45	247,708.10	167,736.24
Capital One	51,071.45	3.30%		11,247.38	376,211.00	3.45%		61,412.48	757,004.00	3.55%		91,252.74	1,184,286.45	214,365.21	163,912.60
Usbancorp	51,071.45	3.19%	4,989.68	11,212.23	376,211.00	3.30%	51,331.61	61,077.52	757,004.00	3.47%	151,700.58	90,870.46	1,184,286.45	208,021.87	163,160.21
PNC Equipment Finance	427,282.45	3.30%	43,216.15	94,099.72	757,004.00	3.56%	111,564.40	124,081.20					1,184,286.45	154,780.55	218,180.92
Municipal Leasing Consultants	**51,071.00**	**3.12%**	**4,873.35**	**11,188.87**	**376,211.00**	**3.15%**	**48,823.61**	**60,719.23**	**757,004.00**	**3.22%**	**140,291.30**	**89,729.53**	**1,184,286.00**	**193,988.26**	**161,637.63**
Gorham Savings Bank	51,071.45	3.87%	6,009.40	11,416.17	376,211.00	4.00%	61,996.77	62,601.11	757,004.00	4.16%	182,526.80	93,953.08	1,184,286.45	250,532.97	167,970.36

Exhibit B

City of Biddeford

Equipment & Vehicle for FY2018 Combination Lease

Revised June 1, 2018

Five (5) Year Schedule Items

1. 2018 Chevy Tahoe 4X4. Purchased new 10/31/17. Cost $34,900.00, to be financed $28,850.45.
2. 2017 Ford Transit. Purchased new 5/23/17. Cost $21,528.00, to be financed $17,528.00.
3. Two-way Radio for Ambulance. Purchased new 6/29/17, 7/18/17. Cost $4,805.87, to be financed $4,733.00.

Total Cost: $60,233.87 Total to be financed: $51,071.45

Seven (7) Year Schedule Items

a. Ambulance. Purchased new 10/10/17. Cost $222,146.00, to be financed $186,646.00.
b. 2017 Trackless Sidewalk Tractor. Purchased new 10/10/17. Cost $140,999.00, to be financed $130,999.00.
c. 2018 Morbark M15R Wood Chipper. Purchased new (invoice coming soon). Cost $75,066.00, to be financed $58,566.00.

Total Cost: $438,211.00 Total to be financed: $376,211.00

Ten (10) Year Schedule Items

A. 2018 Freightliner. Purchased new 1/2/18. Cost $218,740.00, to be financed $174,740.00.
B. Freightliner Chassis. Purchased new 10/10/17. Cost $75,143.00, to be financed $70,143.00.
C. Heated Asphalt Body. Purchased new 12/12/17. Cost $98,809.00, to be financed $89,309.00.
D. 2018 Single Axle Western Star Plow Truck. Purchased new Cost $186,665.00, to be financed $151,632.00.
E. 2017 John-Deere 410L Backhoe/Loader. Purchased new 4/4/17. Cost $120,500.00, to be financed $83,500.00.
F. 2018 Volvo Excavator. Purchased new (invoice coming soon). Cost $157,000.00, to be financed $117,400.00.
G. Sani-Tech System Inc. Purchased new 4/10/18. Cost $92,780.00, to be financed $70,280.00.

Total Cost: $949,637.00 Total to be financed: $757,004.00

Total Amount to be financed: $1,184,286.45