



**GARDINER CITY COUNCIL
AGENDA ITEM INFORMATION SHEET**



Meeting Date	01/23/2019	Department	Finance
Agenda Item	3.d Public Hearing and Second Read of a Bond Proposal not to exceed \$295,000 for LED Streetlight Conversion		
Est. Cost	n/a		

Background Information

This will be a Public Hearing and Second Read of a Bond Proposal not to exceed \$295,000 for the LED Streetlight Conversion.

As you will recall from previous discussions surrounding the conversion, the City of Gardiner will be asked to pay, up front, Affinity Lighting for the LED Streetlight Conversion. This conversion will allow all of the current 500 +/- lights in the City to be converted to LED and to also be 'networked'. Using the proposal, the City of Gardiner is set to save approximately \$1.2M over 20 years.

This proposal has been offered to us at the same price that surrounding municipalities have been offered.

Requested Action	n/a
City Manager and/or Finance Review	n/a
Council Vote/ Action Taken	
Departmental Follow-Up	

City Clerk Use Only	1 st Reading <u>01/09/2019</u>	Advertised <u>12/24/2018</u>	EFFECTIVE DATE _____
	2 nd Reading <u>01/23/2019</u>	Advertised <u>02/07/2019</u> w/in 15 Days	
	Final to Dept _____	Updated Book _____	Online _____

Enter values

Loan amount	\$ 294,074.00
Annual interest rate	4.00 %
Loan period in years	4
Number of payments per year	1
Start date of loan	11/1/2018
Optional extra payments	\$ -

Lender name:

Loan summary

Scheduled payment	\$ 81,014.46
Scheduled number of payments	4
Actual number of payments	4
Total early payments	\$ -
Total interest	\$ 29,983.84

Total Principal and Interest 324,057.84

Pmt No.	Payment Date	Beginning Balance	Scheduled Payment	Extra Payment	Total Payment	Principal	Interest	Ending Balance	Cumulative Interest
1	11/1/2019	\$ 294,074.00	\$ 81,014.46	-	\$ 81,014.46	\$ 69,251.50	\$ 11,762.96	\$ 224,822.50	\$ 11,762.96
2	11/1/2020	224,822.50	81,014.46	-	81,014.46	72,021.56	8,992.90	152,800.94	20,755.86
3	11/1/2021	152,800.94	81,014.46	-	81,014.46	74,902.42	6,112.04	77,898.52	26,867.90
4	11/1/2022	77,898.52	81,014.46	-	77,898.52	74,782.58	3,115.94	0.00	29,983.84



Account Number: 2017102178

GARDINER, ME (CMP) "NETWORKED" LED STREETLIGHT CONVERSION PROPOSAL

Updated: Nov. 11, 2018



ANNUAL HOURS: 4,300

ELECTRIC SUPPLY: 366 monthly hrs X Rate = \$11,148.00

ELECTRIC SUPPLY: 50,000 kWh X Rate = \$1,500.00

MANICIPAL STREET LIGHTING SUMMARY

Current Lighting Description	Quantity	Annual Hours	Annual kWh	Annual Cost	Annual kWh	Annual Cost	Annual kWh	Annual Cost
50WPS CUT OFF COBIA	153	654	27,630	\$828.90	27,630	\$828.90	27,630	\$828.90
70WPS OPEN SUBURBAN	61	262	10,882	\$327.46	10,882	\$327.46	10,882	\$327.46
70WPS CUT OFF COBIA	61	262	10,882	\$327.46	10,882	\$327.46	10,882	\$327.46
100WPS CUT OFF COBIA	37	158	6,576	\$199.28	6,576	\$199.28	6,576	\$199.28
150WPS CUT OFF COBIA	29	124	5,166	\$155.00	5,166	\$155.00	5,166	\$155.00
250WPS CUT OFF COBIA	49	208	8,724	\$261.72	8,724	\$261.72	8,724	\$261.72
160WPS FLOOD	1	4	168	\$5.04	168	\$5.04	168	\$5.04
250WPS FLOOD	1	4	168	\$5.04	168	\$5.04	168	\$5.04
400WPS CUT OFF COBIA	9	38	1,584	\$48.52	1,584	\$48.52	1,584	\$48.52
100WPS OPEN SUBURBAN	1	4	168	\$5.04	168	\$5.04	168	\$5.04
50WPS ENCLOSED COBIA	66	283	11,724	\$351.72	11,724	\$351.72	11,724	\$351.72
70WPS ENCLOSED COBIA	71	300	12,420	\$372.60	12,420	\$372.60	12,420	\$372.60
100WPS ENCLOSED COBIA	10	42	1,752	\$52.56	1,752	\$52.56	1,752	\$52.56
150WPS ENCLOSED COBIA	10	42	1,752	\$52.56	1,752	\$52.56	1,752	\$52.56
250WPS ENCLOSED COBIA	1	4	168	\$5.04	168	\$5.04	168	\$5.04
OTHER EQUIPMENT (pole/bracket, etc)								

LED Models	LED Qty	Annual kWh	Annual Cost	Annual kWh	Annual Cost	Annual kWh	Annual Cost	
Artemis 2000-20W-30K-7X	25	107	4,286	\$128.58	4,286	\$128.58	4,286	\$128.58
Artemis 3000-20W-30K	30	129	5,166	\$155.00	5,166	\$155.00	5,166	\$155.00
Artemis 3000-40W-30K-7X	25	107	4,286	\$128.58	4,286	\$128.58	4,286	\$128.58
Artemis 3000-40W-30K-7X	40	170	6,306	\$189.18	6,306	\$189.18	6,306	\$189.18
Artemis 3000-100W-30K-7X	65	277	11,124	\$333.72	11,124	\$333.72	11,124	\$333.72
Artemis 3000-100W-30K-7X	100	428	17,244	\$517.32	17,244	\$517.32	17,244	\$517.32
Artemis 3000-100W-30K-7X	80	341	13,724	\$411.72	13,724	\$411.72	13,724	\$411.72
Artemis 3000-100W-30K-7X	80	341	13,724	\$411.72	13,724	\$411.72	13,724	\$411.72
Artemis 3000-20W-30K-7X	20	87	3,486	\$104.58	3,486	\$104.58	3,486	\$104.58
Artemis 3000-20W-30K-7X	20	87	3,486	\$104.58	3,486	\$104.58	3,486	\$104.58
Artemis 3000-20W-30K-7X	25	107	4,286	\$128.58	4,286	\$128.58	4,286	\$128.58
Artemis 3000-40W-30K-7X	40	170	6,306	\$189.18	6,306	\$189.18	6,306	\$189.18
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Artemis 3000-100W-30K-7X	100	428	17,244	\$517.32	17,244	\$517.32	17,244	\$517.32
Artemis 3000-100W-30K-7X	100	428	17,244	\$517.32	17,244	\$517.32	17,244	\$517.32

Equipment	Quantity	Cost per Unit	Total Cost
Networked Lighting Controls	1	\$72,461	\$72,461
Electrical Enclosure & Fuse	1	\$26,972	\$26,972
Installation Services	1	\$50,314	\$50,314
Equipment	1	\$84,710	\$84,710
Allow Equipment & Installation	1	\$474,631	\$474,631

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Category	Value
Annual Energy Savings (kwh)	164,841
Long Term Energy Savings (5 Years)	\$24,204
Long Term Energy Savings (10 Years)	\$48,407
Long Term Energy Savings (20 Years)	\$96,814
Annual CO2 Emissions Reduction	270,458 lbs
Long Term CO2 Emissions Reduction (5 Years)	1,352,290 lbs
Long Term CO2 Emissions Reduction (10 Years)	2,704,579 lbs
Long Term CO2 Emissions Reduction (20 Years)	5,409,158 lbs
Annual OPEX Savings	\$75,942
Long Term OPEX Savings (5 Years)	\$379,708
Long Term OPEX Savings (10 Years)	\$759,417
Long Term OPEX Savings (20 Years)	\$1,518,833
Short Term Cumulative ROI	93.0%
Long Term Cumulative ROI	28.3%
10 Year CAPEX Cumulative Impact	\$93,066 Profit
20 Year CAPEX Cumulative Impact	\$186,132 Profit

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Short Term Cumulative ROI	93.0%
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10 Year CAPEX Cumulative Impact	\$93,066 Profit
20 Year CAPEX Cumulative Impact	\$186,132 Profit

Net Book Value provided by City Of Gardiner via annual from CMP

Years: 3.87
Months: 46.5

Net Book Value provided by City Of Gardiner via annual from CMP

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