

## Lighting Audit, Analysis & Proposal

# FOODLAND North York

Audit date: October 30 2015

Proposal date: February 02, 2016

Lighting Retrofit Summary															\$/kwh = \$	0.170	
Location	Fixture Style	Existing Fixture Specs	Number of Lamps	Watts per Fixture	Hours per Year	Quantity Fixtures	energy Usag (kwh/year)	Current Cost/Year	Replacement Fixture or Lamp	Quantity of New Fixtures	Number of Lamps	Watts per Fixture	NEW Usage kwh/year	NEW Cost/Year	Energy Saved (kwh/year)	% Saved	\$ Saved (\$/year)
Main Shop Floor	Industrial	T12 (8 foot) 4L 75W	4	290	8760	77	195,611	\$ 33,254	LED Panel 2x2	166	1	40	58,166	\$ 9,888	137,444	70%	\$ 23,366
	Industrial	T12 (8 foot) 2L 75W	2	145	8760	6	7,621	\$ 1,296		0	0	0	-	\$ -	7,621	100%	\$ 1,296
	Wrap	1x4' T8 2L	2	68	8760	73	43,485	\$ 7,392	T8 LED Lamps 15w	73	2	30	19,184	\$ 3,261	24,300	56%	\$ 4,131
	Wrap	2x4 ' T8 4L	4	131	8760	2	2,295	\$ 390	T8 LED Lamps 15w	2	4	60	1,051	\$ 179	1,244	54%	\$ 211
DELI Storage	Exit Sign	Exit Sign	1	30	8760	2	526	\$ 89	Combo LED exit	2	1	4	70	\$ 12	456	87%	\$ 77
	Industrial	T8 (4 foot) 2L	2	68	8760	10	5,957	\$ 1,013	T8 LED Lamps 15w	10	2	30	2,628	\$ 447	3,329	56%	\$ 566
	A19	CFL Spiral	1	15	8760	2	263	\$ 45	LED A19	2	1	9	158	\$ 27	105	40%	\$ 18
DELI Freezer	Exit Sign	Exit Sign	1	30	8760	1	263	\$ 45	Combo LED exit	1	1	4	35	\$ 6	228	87%	\$ 39
	A19	Incondescent Bulb	1	60	4380	1	263	\$ 45	LED A19	1	1	9	39	\$ 7	223	85%	\$ 38
Stairs to 2nd Floor	Wrap	1x4' T8 2L	2	68	4380	1	298	\$ 51	T8 LED Lamps 15w	1	2	30	131	\$ 22	166	56%	\$ 28
Storage 1st Floor	Industrial	T12 (8 foot) 2L 75W	2	145	8760	11	13,972	\$ 2,375	Vapor Tight Fixt VP 484	11	1	48	4,625	\$ 786	9,347	67%	\$ 1,589
	Exit Sign	Exit Sign	1	30	8760	1	263	\$ 45	Combo LED exit	1	1	4	35	\$ 6	228	87%	\$ 39
Stairs to Basement	Exit Sign	Exit Sign	1	30	8760	1	263	\$ 45	Combo LED exit	1	1	4	35	\$ 6	228	87%	\$ 39
	Industrial	T8 (4 foot) 2L	2	68	8760	1	596	\$ 101	T8 LED Lamps 15w	1	2	30	263	\$ 45	333	56%	\$ 57
BASEMENT STORAGE	Industrial	T12 (4 foot) 2L 80W	2	80	8760	5	3,504	\$ 596	T8 LED Lamps 15w	5	2	30	1,314	\$ 223	2,190	63%	\$ 372
	Fluorescent	T12 (8 foot) 2L 80W	2	75	8760	23	15,111	\$ 2,569	Vapor Tight Fixt VP 484	23	1	48	9,671	\$ 1,644	5,440	36%	\$ 925
	Exit Sign	Exit Sign	1	30	8760	2	526	\$ 89	Combo LED exit	2	1	4	70	\$ 12	456	87%	\$ 77
	CFL	CFL SPIRAL 15W	1	15	8760	20	2,628	\$ 447	LED A19	20	1	9	1,577	\$ 268	1,051	40%	\$ 179
	Basement Storage near belt	Industrial	T12 (8 foot) 2L 80W	2	160	8760	7	9,811	\$ 1,668	Vapor Tight Fixt VP 484	7	1	48	2,943	\$ 500	6,868	70%
Fluorescent		T8 (4 foot)	2	68	8760	2	1,191	\$ 203	T8 LED Lamps 15w	2	2	30	526	\$ 89	666	56%	\$ 113
Produce /milk Cooler Meat Cooler	Industrial	T8 (4 foot) 2L	2	64	8760	30	16,819	\$ 2,859	T8 LED Lamps 15w	30	2	30	7,884	\$ 1,340	8,935	53%	\$ 1,519
	Industrial	T8 (4 foot) 2L	2	64	8760	23	12,895	\$ 2,192	T8 LED Lamps 15w	23	2	30	6,044	\$ 1,028	6,850	53%	\$ 1,165
<b>TOTALS for Project</b>						<b>301</b>	<b>334,159</b>	<b>\$ 56,807</b>		<b>384</b>			<b>116,451</b>	<b>\$ 19,797</b>	<b>217,708</b>	<b>65%</b>	<b>\$ 37,010</b>

Lighting Audit, Analysis & Proposal (Complete)

**FOODLAND North York**

Audit date: October 30 2015

Proposal date: February 02, 2016

**Investment Summary**

Location	Existing Fixture Specs	Watts /Fixture Old	Hours /Year	Replacement Fixture or Lamp	Quantity of New Fixtures	Number of Lamps	Watts /Fixture New	Energy Saved (kwh/year)	\$ Saved (\$/year)	Cost/Fixture (\$)	Total Investment Materials	Total Labor & Installation	Drop in Watts	OPA Rebate	Investment After Rebate	ROI (%)	Payback Period mths
Main Shop Floor	T12 (8 foot) 4L 75W	290	8760	LED Panel 2x2	166	1	40	137,444	\$ 23,366	\$ 124.00	\$ 20,584	\$ 9,960	15,690	\$ 6,872	\$ 23,672	99%	12.2
	T12 (8 foot) 2L 75W	145	8760	0	0	0	0	7,621	\$ 1,296	\$ -	\$ -	\$ -	870	\$ -	\$ -	-	-
	1x4' T8 2L	68	8760	T8 LED Lamps 15w	73	2	30	24,300	\$ 4,131	\$ 48.00	\$ 3,504	\$ 1,460	2,774	\$ 1,215	\$ 3,749	110%	10.9
	2x4' T8 4L	131	8760	T8 LED Lamps 15w	2	4	60	1,244	\$ 211	\$ 96.00	\$ 192	\$ 40	142	\$ 62	\$ 170	125%	9.6
	Exit Sign	30	8760	Combo LED exit	2	1	4	456	\$ 77	\$ 64.00	\$ 128	\$ 60	52	\$ 30	\$ 158	49%	24.5
DELI Storage	T8 (4 foot) 2L	68	8760	T8 LED Lamps 15w	10	2	30	3,329	\$ 566	\$ 48.00	\$ 480	\$ 200	380	\$ 166	\$ 514	110%	10.9
	CFL Spiral	15	8760	LED A19	2	1	9	105	\$ 18	\$ 10.00	\$ 20	\$ 10	12	\$ 13	\$ 17	105%	11.4
	Exit Sign	30	8760	Combo LED exit	1	1	4	228	\$ 39	\$ 64.00	\$ 64	\$ 30	26	\$ 15	\$ 79	49%	24.5
DELI Freezer Stairs to 2nd Floor	Incondescent Bulb	60	8760	LED A19	1	1	9	223	\$ 38	\$ 10.00	\$ 10	\$ 5	51	\$ 7	\$ 9	447%	2.7
	1x4' T8 2L	68	8760	T8 LED Lamps 15w	1	2	30	166	\$ 28	\$ 48.00	\$ 48	\$ 20	38	\$ 8	\$ 60	47%	25.3
								<b>175117</b>	<b>\$ 29,770</b>		<b>\$ 25,030</b>			<b>\$ 8,389</b>	<b>\$ 28,426</b>	<b>105%</b>	<b>11.5</b>
Storage 1st Floor	T12 (8 foot) 2L 75W	145	8760	apor Tight Fixt VP 48	11	1	48	9,347	\$ 1,589	\$ 132.00	\$ 1,452	\$ 440	1,067	\$ 467	\$ 1,425	112%	10.8
	Exit Sign	30	8760	Combo LED exit	1	1	4	228	\$ 39	\$ 64.00	\$ 64	\$ 30	26	\$ 15	\$ 79	49%	24.5
Stairs to Basement	Exit Sign	30	8760	Combo LED exit	1	1	4	228	\$ 39	\$ 64.00	\$ 64	\$ 30	26	\$ 15	\$ 79	49%	24.5
	T8 (4 foot) 2L	68	8760	T8 LED Lamps 15w	1	2	30	333	\$ 57	\$ 48.00	\$ 48	\$ 20	38	\$ 17	\$ 51	110%	10.9
								<b>10,135</b>	<b>\$ 1,723</b>		<b>\$ 1,628</b>			<b>\$ 514</b>	<b>\$ 1,634</b>	<b>105%</b>	<b>11.4</b>
BASEMENT STORAGE	T12 (4 foot) 2L 80W	80	8760	T8 LED Lamps 15w	5	2	30	2,190	\$ 372	\$ 48.00	\$ 240	\$ 100	250	\$ 110	\$ 231	162%	7.4
	T12 (8 foot) 2L 80W	75	8760	apor Tight Fixt VP 48	23	1	48	5,440	\$ 925	\$ 132.00	\$ 3,036	\$ 920	621	\$ 272	\$ 3,684	25%	47.8
	Exit Sign	30	8760	Combo LED exit	2	1	4	456	\$ 77	\$ 56.00	\$ 112	\$ 60	52	\$ 30	\$ 142	55%	22.0
	CFL SPIRAL 15W	15	8760	LED A19	20	1	9	1,051	\$ 179	\$ 10.00	\$ 200	\$ 100	120	\$ 130	\$ 170	105%	11.4
	Basement Storage near be	T12 (8 foot) 2L 80W	160	8760	apor Tight Fixt VP 48	7	1	48	6,868	\$ 1,168	\$ 132.00	\$ 924	\$ 280	784	\$ 343	\$ 861	136%
T8 (4 foot)		68	8760	T8 LED Lamps 15w	2	2	30	666	\$ 113	\$ 48.00	\$ 96	\$ 40	76	\$ 33	\$ 103	110%	10.9
								<b>18,326</b>	<b>\$ 3,115</b>		<b>\$ 5,016</b>			<b>\$ 927</b>	<b>5678.868</b>	<b>55%</b>	<b>21.9</b>
Produce /milk Cooler Meat Cooler	T8 (4 foot) 2L	64	8760	T8 LED Lamps 15w	30	2	30	8,935	\$ 1,519	\$ 48.00	\$ 1,440	\$ 600	1,020	\$ 447	\$ 1,593	95%	12.6
	T8 (4 foot) 2L	64	8760	T8 LED Lamps 15w	23	2	30	6,850	\$ 1,165	\$ 48.00	\$ 1,104	\$ 460	782	\$ 343	\$ 1,221	95%	12.6
								<b>15,786</b>	<b>\$ 2,684</b>		<b>\$ 2,544</b>			<b>\$ 789</b>	<b>\$ 2,815</b>	<b>95%</b>	<b>12.6</b>
<b>TOTALS for Project</b>					<b>384</b>			<b>217,708</b>	<b>37,010</b>		<b>\$ 33,810</b>	<b>\$ 14,865</b>	<b>24,897</b>	<b>\$ 10,610</b>	<b>\$ 38,065</b>	<b>97%</b>	<b>12.3</b>

Lighting Audit, Analysis & Proposal  
**FOODLAND North York**

<b>Rate Analysis</b>				
<b>Electricity Costs</b>	<b>Cost per kwh <i>combined</i></b>	<b>Increase in Electricity Costs</b>	<b>Energy Saved <i>kwh/year</i></b>	<b>Cost Saved per Year <i>\$/year</i></b>
Electricity Costs Year 1	\$ 0.170	8%	217,708	\$ 37,010
Electricity Costs Year 2	\$ 0.184	8%	217,708	\$ 39,971
Electricity Costs Year 3	\$ 0.198	8%	217,708	\$ 43,169
Electricity Costs Year 4	\$ 0.214	8%	217,708	\$ 46,622
Electricity Costs Year 5	\$ 0.231	8%	217,708	\$ 50,352
<b>5 Year Totals</b>		<b>40%</b>	<b>1,088,540</b>	<b>\$ 217,125</b>

<b>Life Cycle Analysis: Labour &amp; Materials Avoided</b>				
<b>Maintenance Costs Avoided over 5 Years</b>	<b>Cost per Fixture or lamp</b>	<b>Relamping Frequency over 5 years</b>	<b>Quantity Fixtures or Lamps</b>	<b>Total Cost over 5 years</b>
Labour Costs per Fixture	\$ 30.00	1	226	\$ 6,780.00
T12/T8 lamp Costs	\$ 5.00	1	700	\$ 3,500.00
T12/T8 ballast Costs	\$ 20.00	1	350	\$ 7,000.00
CFL /A19	\$ 5.00	1	23	\$ 115.00
GLS 30W for exit sign	\$ 5.00	1	7	\$ 35.00
<b>5 Year Totals</b>				<b>\$ 17,430</b>

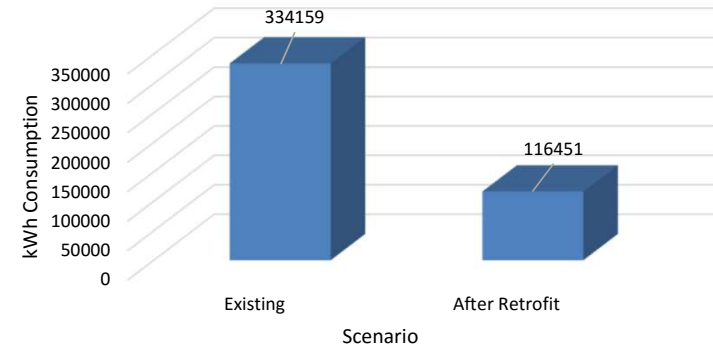
# Lighting Audit, Analysis & Proposal

## FOODLAND North York

### Total Project Summary

Current Energy Consumption per Year	334,159 KWHs
Projected Energy Consumption per Year	116,451 KWHs
<b>A Energy Savings per Year</b>	<b>217,708 KWHs</b>
<b>Drop in Energy for Lighting</b>	<b>65%</b>
Current Cost of Energy per Year	\$ 56,807
Projected Cost of Energy per Year	\$ 19,797
<b>B Cost Savings / Year based on 2014 rates</b>	<b>\$ 37,010</b>
Cost of Lighting Materials	\$ 33,810
Labour for installtion (Estimate)	\$ 14,865
Recycling costs (estimate)	\$ 1,000
<b>C OPA Rebate (estimate)</b>	<b>-\$ 10,610</b>
<b>D Final Investment: Equipment &amp; Labour after rebate</b>	<b>\$ 39,065</b>
Energy Saving per Year	217,708 KWHs
Cost Savings per Year, adjusted 5 year average rate	\$ 43,425
<b>E Cost Savings over 5 Years, adjusted</b>	<b>\$ 217,125</b>
<b>F Simple ROI on Capital Equipment &amp; Labour (after Rebate &amp; Savings)</b>	<b>95%</b>
<b>Payback Period</b>	<b>12.7 months</b>
<b>G Avoided Maintenance Cost due to relamping</b>	<b>-\$ 17,430</b>
<b>ROI including Avoided Maintence Costs</b>	<b>104%</b>
<b>Payback Period applying Avoided Maintence Costs</b>	<b>11.5</b>
<b>H Return of Investment after 5 years (\$)</b>	<b>\$ 195,490</b>

Comparison of kWh per annum consumption



Cash flow from the project in \$

