

Assumptions

Fixture Costs

Cobra Heads	\$250	Cobra Head (including photocell)
Decorative Post-Top	\$1,200	New Fixture
Town & Country Post-Top	\$100	LED Bulb

Energy and Labor Rates

Energy Rate (\$ per kWh - FY14/FY15)	\$0.23
In-house Labor Rate (\$ per Hr)	\$48

Other

Streetlight Burn Hours per year	4,270
Projected Maintenance Savings	0% *Realized maintenance savings will shorten the payback period*

Executive Summary

		Upfront Costs			Annual Savings			Payback (years)		IRR	
		Fixture	Installation	Total Cost	Utility Costs	Maintenance	Total	Electricity only	Inc. Maintenance	10 year	20 year
Return Analysis (Full Rollout)											
Cobra Heads	1,791	\$447,750	\$43,053	\$490,803	\$85,447	\$0	\$85,447	5.7	5.7	12%	17%
Decorative Post-Top	130	\$156,000	\$3,125	\$159,125	\$20,064	\$0	\$20,064	7.9	7.9	4%	11%
Town & Country Post-Top	73	\$7,300	\$1,755	\$9,055	\$10,080	\$0	\$10,080	0.9	0.9	111%	111%
All Lights	1,994	\$611,050	\$47,933	\$658,983	\$115,591	\$0	\$115,591	5.7	5.7	12%	17%
<i>Note: 2 fixtures on inventory were already switched to LEDs (Total Fixtures 1,996)</i>											
Return Analysis (Year 1 Proposal)											
	Number										
High Traffic Locations	214	\$53,500	\$5,144	\$58,644	\$14,722	\$0	\$14,722	4.0	4.0	22%	25%
Town & Country Post-Top	73	\$7,300	\$1,755	\$9,055	\$10,246	\$0	\$10,246	0.9	0.9	111%	111%
Total - Year 1 Proposal	287	\$60,800	\$6,899	\$67,699	\$24,968	\$0	\$24,968	2.7	2.7	35%	37%

Return Analysis Details - Cobra Heads

Cobra Head Specific Assumptions

Installation Time per Fixture (Hrs) 0.25 Hours per crew
 Staff per installation crew 2

Return Analysis

	Number	Upfront Costs			Annual Savings			Payback (years)	
		Fixture	Installation	Total Cost	Utility Costs	Maintenance	Total	Electricity only	Inc. Maintenance
All Cobra Heads	1,791	\$447,750	\$43,053	\$490,803	\$85,447	\$0	\$85,447	5.7	5.7

Details

Fixture Type	Number	Current Setup (Annual)			LEDs (Annual)			Savings (Annual)	
		Wattage	kWh	Utility Costs	Wattage	kWh	Utility Costs	kWh	Utility Costs
Sodium Vapor (58w)	843	58	208,777	\$48,193	20	71,992	\$16,618	136,785	\$31,575
Sodium Vapor (64w)	1	64	273	\$63	20	85	\$20	188	\$43
Sodium Vapor (83w)	749	83	265,453	\$61,275	30	95,947	\$22,148	169,506	\$39,128
Sodium Vapor (88w)	8	88	3,006	\$694	30	1,025	\$237	1,981	\$457
Sodium Vapor (100w)	14	100	5,978	\$1,380	50	2,989	\$690	2,989	\$690
Sodium Vapor (101w)	7	101	3,019	\$697	50	1,495	\$345	1,524	\$352
Sodium Vapor (117w)	125	117	62,449	\$14,415	50	26,688	\$6,160	35,761	\$8,255
Sodium Vapor (119w)	9	119	4,573	\$1,056	50	1,922	\$444	2,652	\$612
Sodium Vapor (171w)	11	171	8,032	\$1,854	50	2,349	\$542	5,683	\$1,312
Sodium Vapor (188w)	2	188	1,606	\$371	50	427	\$99	1,179	\$272
Sodium Vapor (193w)	7	193	5,769	\$1,332	50	1,495	\$345	4,274	\$987
Sodium Vapor (215w)	5	215	4,590	\$1,060	50	1,068	\$246	3,523	\$813
Sodium Vapor (286w)	1	286	1,221	\$282	50	214	\$49	1,008	\$233
High Pressure Sodium	2	250	2,135	\$493	50	427	\$99	1,708	\$394
Incandescent	7	92	2,750	\$635	45	1,345	\$310	1,405	\$324
Total	1,791	75.79	579,631	\$133,798	27.39	209,465	\$48,351	370,166	\$85,447

Return Analysis Details - Decorative and Town & Country Fixtures

Decorative / Town & Country Specific Assumptions

Installation Time per Fixture (Hrs) 0.25 Hours per crew
 Staff per installation crew 2

Return Analysis

	Number	Upfront Costs			Annual Savings			Payback (years)	
		Fixture	Installation	Total Cost	Utility Costs	Maintenance	Total	Electricity only	Inc. Maintenance
Decorative (Acorn)	130	\$156,000	\$3,125	\$159,125	\$20,064	\$0	\$20,064	7.9	7.9
Town and Country	73	\$7,300	\$1,755	\$9,055	\$10,080	\$0	\$10,080	0.9	0.9
All Post Top Lights	203	\$163,300	\$4,880	\$168,180	\$30,144	\$0	\$30,144	5.6	5.6

Details

Fixture Type	Number	Current Setup			LEDs (Annual)			Savings (Annual)	
		Wattage	kWh	Utility Costs	Wattage	kWh	Utility Costs	kWh	Utility Costs
Sodium Vapor (141w) (Town & Country)	49	141	29,501	\$6,810	18	3,766	\$869	25,735	\$5,941
Metal Halide (Decorative - Acorn)	3	92	1,179	\$272	45	576	\$133	602	\$139
Metal Halide (Decorative - Acorn)	8	95	3,245	\$749	45	1,537	\$355	1,708	\$394
Metal Halide (Decorative - Acorn)	95	215	87,215	\$20,132	50	20,283	\$4,682	66,932	\$15,450
Metal Halide (Decorative - Acorn)	3	325	4,163	\$961	45	576	\$133	3,587	\$828
Mercury Vapor (Decorative - Acorn)	20	200	17,080	\$3,943	45	3,843	\$887	13,237	\$3,056
Mercury Vapor (Decorative - Acorn)	1	250	1,068	\$246	50	214	\$49	854	\$197
Mercury Vapor (Town & Country)	24	200	20,496	\$4,731	25	2,562	\$591	17,934	\$4,140
Total	203	189.14	163,947	\$37,844	38.48	33,357	\$7,700	130,589	\$30,144

Return Analysis Details - High Traffic Streets and Town & Country Post-Top Locations

High Traffic Locations Specific Assumptions

Installation Time per Fixture (Hrs) 0.25 Hours per crew
 Staff per installation crew 2

Return Analysis

	Number	Upfront Costs			Annual Savings			Payback (years)	
		Fixture	Installation	Total Cost	Utility Costs	Maintenance	Total	Electricity only	Inc. Maintenance
High Traffic Streets	214	\$53,500	\$5,144	\$58,644	\$14,722	\$0	\$14,722	4.0	4.0
Town & Country Post-Top	73	\$7,300	\$1,755	\$9,055	\$10,246	\$0	\$10,246	0.9	0.9
Total	287	\$60,800	\$6,899	\$67,699	\$24,968	\$0	\$24,968	2.7	2.7

Details

Street	Fixture Type	Number	Current Setup (Annual)			LEDs (Annual)			Savings (Annual)		
			Wattage	kWh	Utility Costs	Wattage	kWh	Utility Costs	kWh	Utility Costs	Fixture Cost
WHITE PLAINS PO (Post Road) (117W)	Cobra Head	72	117	35,970	\$8,303	50	15,372	\$3,548	20,598	\$4,755	\$18,000
WHITE PLAINS PO (Post Road) (193W)	Cobra Head	4	193	3,296	\$761	50	854	\$197	2,442	\$564	\$1,000
HEATHCOTE RD (83W)	Cobra Head	29	83	10,278	\$2,372	30	3,715	\$858	6,563	\$1,515	\$7,250
HEATHCOTE RD (101W)	Cobra Head	3	101	1,294	\$299	30	384	\$89	910	\$210	\$750
HEATHCOTE RD (193W)	Cobra Head	1	193	824	\$190	30	128	\$30	696	\$161	\$250
MAMARONECK RD (83W)	Cobra Head	66	83	23,391	\$5,399	30	8,455	\$1,952	14,936	\$3,448	\$16,500
MAMARONECK RD (188W)	Cobra Head	2	188	1,606	\$371	30	256	\$59	1,349	\$311	\$500
WEAVER ST (117W)	Cobra Head	26	117	12,989	\$2,998	30	3,331	\$769	9,659	\$2,230	\$6,500
WEAVER ST (171W)	Cobra Head	11	171	8,032	\$1,854	30	1,409	\$325	6,623	\$1,529	\$2,750
Town and Country (SV 141W)	Town & Country	49	141	29,501	\$6,810	18	3,766	\$869	25,735	\$5,941	\$4,900
Town and Country (MV 200W)	Town & Country	24	200	20,496	\$4,731	18	1,845	\$426	18,651	\$4,305	\$2,400
		287	120.51	147,678	\$34,089	32.24	39,515	\$9,121	108,163	\$24,968	\$60,800