

PROPOSAL 2 - £1M FOR INVESTMENT 2017-18 (based on Replacement of 250HP and 55LP Lamps)

Lamp Type	Number	Number of units in Conflicted Area	Proposal 2: 2017-18	Remaining units in Conflicted Area	Like-for-Like Replacement					
					Initial Unit Cost	Annual Energy (kWh)	Annual Energy Cost (£)	Unit Cost for 20 Years	Energy Cost for 20 Years	20 year Whole Life Cost
250 High Pressure Sodium	864	698	650	48	£112,450	816,446	£93,074	£206,050	£1,861,470	£2,067,520
150 High Pressure Sodium	3,533	1,636	0	1,636	£0	0	£0	£0	£0	£0
100 High Pressure Sodium	1,187	252	0	252	£0	0	£0	£0	£0	£0
135 Low Pressure Sodium	286	152	0	152	£0	0	£0	£0	£0	£0
90 Low Pressure Sodium	327	106	0	106	£0	0	£0	£0	£0	£0
55 Low Pressure Sodium	1,700	0	1,700	0	£221,000	524,960	£59,840	£425,000	£1,196,800	£1,621,800
Totals	7,897		2,350		£333,450	1,341,406	£152,914			£3,689,320

Lamp Type	Number	Number of units in Conflicted Area	Proposal 2: 2017-18	Remaining units in Conflicted Area	CPO (Cosmopolis) Replacement					
					Initial Unit Cost	Annual Energy (kWh)	Annual Energy Cost (£)	Unit Cost for 20 Years	Energy Cost for 20 Years	20 year Whole Life Cost
250 High Pressure Sodium	864	698	650	48	£193,050	425,855	£48,547	£317,850	£970,949	£1,288,799
150 High Pressure Sodium	3,533	1,636	0	1,636	£0	0	£0	£0	£0	£0
100 High Pressure Sodium	1,187	252	0	252	£0	0	£0	£0	£0	£0
135 Low Pressure Sodium	286	152	0	152	£0	0	£0	£0	£0	£0
90 Low Pressure Sodium	327	106	0	106	£0	0	£0	£0	£0	£0
55 Low Pressure Sodium	1,700	0	1,700	0	£494,700	482,399	£54,993	£916,300	£1,099,869	£2,016,169
Totals	7,897		2,350		£687,750	908,253	£103,541			£3,304,968

Lamp Type	Number	Number of units in Conflicted Area	Proposal 2: 2017-18	Remaining units in Conflicted Area	LED Replacement					
					Initial Unit Cost	Annual Energy (kWh)	Annual Energy Cost (£)	Unit Cost for 20 Years	Energy Cost for 20 Years	20 year Whole Life Cost
250 High Pressure Sodium	864	698	650	48	£520,000	325,494	£37,106	£520,000	£742,126	£1,262,126
150 High Pressure Sodium	3,533	1,636	0	1,636	£0	0	£0	£0	£0	£0
100 High Pressure Sodium	1,187	252	0	252	£0	0	£0	£0	£0	£0
135 Low Pressure Sodium	286	152	0	152	£0	0	£0	£0	£0	£0
90 Low Pressure Sodium	327	106	0	106	£0	0	£0	£0	£0	£0
55 Low Pressure Sodium	1,700	0	1,700	0	£289,000	170,255	£19,414	£289,000	£388,280	£677,280
Totals	7,897		2,350		£809,000	495,749	£56,520			£1,939,406

Lamp Type	Number	Number of units in Conflicted Area	Proposal 2: 2017-18	Remaining units in Conflicted Area	CPO (Cosmopolis)/ LED Replacement					
					Initial Unit Cost	Annual Energy (kWh)	Annual Energy Cost (£)	Unit Cost for 20 Years	Energy Cost for 20 Years	20 year Whole Life Cost
250 High Pressure Sodium	864	698	650	48	£193,050	425,855	£48,547	£317,850	£970,949	£1,288,799
150 High Pressure Sodium	3,533	1,636	0	1,636	£0	0	£0	£0	£0	£0
100 High Pressure Sodium	1,187	252	0	252	£0	0	£0	£0	£0	£0
135 Low Pressure Sodium	286	152	0	152	£0	0	£0	£0	£0	£0
90 Low Pressure Sodium	327	106	0	106	£0	0	£0	£0	£0	£0
55 Low Pressure Sodium	1,700	0	1,700	0	£289,000	170,255	£19,414	£289,000	£388,280	£677,280
Totals	7,897		2,350		£482,050	596,110	£67,961			£1,966,079

NOTES:

The selection for the combined table (CPO (Cosmopolis)/ LED Replacement) was assessed on the total Initial Unit Costs and the total 20 year Whole Life Costs, so for Proposal 2 (2017-18):

The **250W High Pressure Sodium Units** (650 to be replaced); for Cosmopolis had an initial cost of ©£200k with a 20 year Whole Life cost of ©£1,300k, for LED replacements the initial costs are ©500k with a 20 year Whole Life cost of ©£1,250k - so preferred option is Cosmopolis replacement

The **55W Low Pressure Sodium Units** (1,700 to be replaced); for Cosmopolis had an initial cost of ©£500k with a 20 year Whole Life cost of ©£2,000k, for LED replacements the initial costs are ©300k with a 20 year Whole Life cost of ©£700k - so preferred option is LED replacement