

**PROPOSAL 3 - £2M FOR INVESTMENT 2018-19 (follow on from Proposal 2)**

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	£8,304	60,291	£6,873	£15,216	£137,462	£152,678
150 High Pressure Sodium	3,533	1,636		1,636	£269,940	1,228,865	£140,091	£492,436	£2,801,814	£3,294,250
100 High Pressure Sodium	1,187	252		252	£33,516	119,881	£13,666	£64,764	£273,319	£338,083
135 Low Pressure Sodium	286	152		152	£25,536	112,904	£12,871	£48,032	£257,427	£305,459
90 Low Pressure Sodium	327	106		106	£14,310	53,966	£6,152	£28,302	£123,045	£151,347
55 Low Pressure Sodium	1,700	0	1,700	0	£0	0	£0	£0	£0	£0
<b>Totals</b>	<b>7,897</b>			<b>2,194</b>	<b>£351,606</b>			<b>£648,750</b>	<b>£3,593,067</b>	<b>£4,241,817</b>

**Mtce Cost  
£ 297,144**

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	£14,256	31,448	£3,585	£23,472	£71,701	£95,173
150 High Pressure Sodium	3,533	1,636		1,636	£485,892	1,071,843	£122,190	£800,004	£2,443,803	£3,243,807
100 High Pressure Sodium	1,187	252		252	£78,624	104,108	£11,868	£143,136	£237,366	£380,502
135 Low Pressure Sodium	286	152		152	£45,144	99,584	£11,353	£74,328	£227,053	£301,381
90 Low Pressure Sodium	327	106		106	£33,072	43,791	£4,992	£60,208	£99,845	£160,053
55 Low Pressure Sodium	1,700	0	1,700	0	£0	0	£0	£0	£0	£0
<b>Totals</b>	<b>7,897</b>			<b>2,194</b>	<b>£656,988</b>			<b>£1,101,148</b>	<b>£3,079,767</b>	<b>£4,180,915</b>

**Mtce Cost  
£444,160**

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	£38,400	24,036	£2,740	£38,400	£54,803	£93,203
150 High Pressure Sodium	3,533	1,636		1,636	£1,308,800	593,951	£67,710	£1,308,800	£1,354,209	£2,663,009
100 High Pressure Sodium	1,187	252		252	£201,600	25,238	£2,877	£201,600	£57,543	£259,143
135 Low Pressure Sodium	286	152		152	£121,600	76,116	£8,677	£121,600	£173,543	£295,143
90 Low Pressure Sodium	327	106		106	£84,800	38,483	£4,387	£84,800	£87,742	£172,542
55 Low Pressure Sodium	1,700	0	1,700	0	£0	0	£0	£0	£0	£0
<b>Totals</b>	<b>7,897</b>			<b>2,194</b>	<b>£1,755,200</b>			<b>£1,755,200</b>	<b>£1,727,841</b>	<b>£3,483,041</b>

**Mtce Cost  
£0**

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	£14,256	31,448	£3,585	£23,472	£71,701	£95,173
150 High Pressure Sodium	3,533	1,636		1,636	£1,308,800	593,951	£67,710	£1,308,800	£1,354,209	£2,663,009
100 High Pressure Sodium	1,187	252		252	£201,600	25,238	£2,877	£201,600	£57,543	£259,143
135 Low Pressure Sodium	286	152		152	£45,144	99,584	£11,353	£74,328	£227,053	£301,381
90 Low Pressure Sodium	327	106		106	£33,072	43,791	£4,992	£60,208	£99,845	£160,053
55 Low Pressure Sodium	1,700	0	1,700	0						
<b>Totals</b>	<b>7,897</b>			<b>2,194</b>	<b>£1,602,872</b>			<b>£1,668,408</b>	<b>£1,810,351</b>	<b>£3,478,759</b>
								<b>Mtce Cost</b>		
								<b>£65,536</b>		

**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, cost of ©£700k for LED replacements the initial costs are ©£300k with a 20 year Whole Life - so preferred option is LED replacement