

#	Item	175 W Category							400 W Category				400 W Flood	
		150W HPS	70W LED	60W LED	65W LED	80/85 IND	MH 100	MV 175	145W LED	250W HPS	MH 250	MV 400	400W Flood	250W Flood
1	Input Watts	150	70	60	65	85	100	175	145	250	250	400	400	200
2	Lumens	13,000	6,650	6,498	6,498	6,400	6,400	6,800	17,499	25,000	17,000	20,000	20,000	17,000
3	Cost of Light Including Installation	\$ 146.55	\$ 436.53	\$ 396.63	\$ 411.95	\$ 424.93	\$ 226.51	\$ 159.45	\$ 642.70	\$ 465.18	\$ 496.18	\$ 405.00	\$ 414.80	\$ 396.45
4	Annual Carrying Cost (16.59%)	24.32	72.43	65.81	68.35	70.51	37.58	26.46	106.64	77.19	82.33	67.20	68.83	65.78
5	Annual Energy Usage	720	290	248	269	352	600	840	600	1,190	1,190	1,800	1,800	1,190
6	Annual Energy Cost	\$ 78.34	\$ 31.55	\$ 26.98	\$ 29.27	\$ 38.30	\$ 65.28	\$ 91.39	\$ 65.28	\$ 129.47	\$ 129.47	\$ 195.84	\$ 195.84	\$ 129.47
7	Annual Est. Maintenance cost	\$ 24.88	\$ 5.45	\$ 5.45	\$ 5.45	\$ 5.45	\$ 32.65	\$ 21.26	\$ 9.32	\$ 26.28	\$ 28.85	\$ 24.28	\$ 24.28	\$ 28.85
8	Annual Interest Expense (3.25%)	\$ 4.86	\$ 14.49	\$ 13.17	\$ 13.67	\$ 14.10	\$ 7.52	\$ 5.29	\$ 21.33	\$ 15.44	\$ 16.47	\$ 13.44	\$ 13.77	\$ 13.16
9	Total Annual Cost	\$ 132.40	\$ 123.92	\$ 111.41	\$ 116.75	\$ 128.36	\$ 143.03	\$ 144.40	\$ 202.58	\$ 248.38	\$ 257.12	\$ 300.76	\$ 302.72	\$ 237.26
10	Monthly Cost	\$ 11.03	\$ 10.33	\$ 9.28	\$ 9.73	\$ 10.70	\$ 11.92	\$ 12.03	\$ 16.88	\$ 20.70	\$ 21.43	\$ 25.06	\$ 25.23	\$ 19.77
11	Proposed Monthly Charge	\$ 9.31	\$ 9.31	\$ 9.31	\$ 9.31	\$ 9.31	\$ 9.31	\$ 9.31	\$ 13.89	\$ 13.89	\$ 13.89	\$ 13.89	\$ 18.90	\$ 18.90
12	Cost less Charge	\$ 1.72	\$ 1.02	\$ (0.03)	\$ 0.42	\$ 1.39	\$ 2.61	\$ 2.72	\$ 2.99	\$ 6.81	\$ 7.54	\$ 11.17	\$ 6.33	\$ 0.87

- Notes
- 1,2 From manufacturer
 - 3 Cost of light plus installation cost based on 2 hrs of lineman labor, plus overheads, plus bucket truck transportation
 - 4 Based on applicable costs as percentage of test year rate base (incl. Cust Acct, Cust Serv, A&G, Depr, and Return on Rate Base)
 - 5 Based on 4,140 hours of usage annually
 - 6 Based on proposed all-in retail rate of \$0.1088/kWh
 - 7 Based on estimates for bulb life, parts and labor per fixture
 - 8 Based on test year interest on long term debt (\$701,164 / \$ 21,123,844)
 - 9 Sum of Lines 4, 6, 7, and 8.

Big Sandy RECC

	175 W Category							400 W Category				400 W Flood	
	150W HPS	70W LED	60W LED	65W LED	80/85 IND	MH 100	MV 175	145W LED	250W HPS	MH 250	MV 400	400W Flood	250W Flood
1. Input Watts	150	70	60	65	85	100	175	145	250	250	400	400	200
2. Lumens	13,000	6,650	6,498	6,498	6,400	6,400	6,800	17,499	25,000	17,000	20,000	20,000	17,000
3. Cost of Light Including Installation	\$146.55	\$436.53	\$396.63	\$411.95	\$424.93	\$226.51	\$159.45	\$642.70	\$465.18	\$496.18	\$405.00	\$414.80	\$396.45
4. Annual Carrying Cost	24.32	72.43	65.81	68.35	70.51	37.58	26.46	106.64	77.19	82.33	67.20	68.83	65.78
5. Annual Energy Usage	720	290	248	269	352	600	840	600	1,190	1,190	1,800	1,800	1,190
6. Annual Energy Cost 0.1088	\$78.34	\$31.55	\$26.98	\$29.27	\$38.30	\$65.28	\$91.39	\$65.28	\$129.47	\$129.47	\$195.84	\$195.84	\$129.47
7. Annual Est. Maintenance cost	\$24.88	\$5.45	\$5.45	\$5.45	\$5.45	\$32.65	\$21.26	\$9.32	\$26.28	\$28.85	\$24.28	\$24.28	\$28.85
8. Annual Interest Expense 3.32%	\$4.86	\$14.49	\$13.17	\$13.67	\$14.10	\$7.52	\$5.29	\$21.33	\$15.44	\$16.47	\$13.44	\$13.77	\$13.16
8. Total Annual Cost	\$132.40	\$123.92	\$111.41	\$116.75	\$128.36	\$143.03	\$144.40	\$202.58	\$248.38	\$257.12	\$300.76	\$302.72	\$237.26
9. Monthly Cost	\$11.03	\$10.33	\$9.28	\$9.73	\$10.70	\$11.92	\$12.03	\$16.88	\$20.70	\$21.43	\$25.06	\$25.23	\$19.77
10 Proposed Monthly Charge	\$9.31	\$9.31	\$9.31	\$9.31	\$9.31	\$9.31	\$9.31	\$13.89	\$13.89	\$13.89	\$13.89	\$18.90	\$18.90
11 Cost less Charge	\$1.72	\$1.02	-\$0.03	\$0.42	\$1.39	\$2.61	\$2.72	\$2.99	\$6.81	\$7.54	\$11.17	\$6.33	\$0.87

ANNUAL CARRYING CHARGE CALCULATION

	2016	PERCENTAGE
CUSTOMER ACCOUNTS EXPENSE	\$887,246	2.61%
CUSTOMER SERVICE & INFORMATI	\$35,184	0.10%
ADMINISTRATIVE & GENERAL EXPE	\$1,364,315	4.01%
DEPRECIATION EXPENSE	\$2,272,704	6.68%
SUB-TOTAL		13.39%
Total Rate Base	\$34,044,017	
Rate of Return on Rate Base Requested		3.20%
Total annual Carrying Charges		16.59%
INTEREST EXPENSE	\$701,164	
Total LTD Share	\$21,123,844	3.32%

#	Fixture	Bulb (lamp) life	Parts	Part cost	Labor (1 maint. Visit)	Est. frequency	Total one trip	Avg annual cost
1	150W HPS	24000 hour bulb	bulb, starter, photocontrol	\$ 34.00	90.39	5yrs	\$ 124.39	\$ 24.88
2								
3	70 watt LED		repalcement cost	fixture & labor	estimate 29% failure over 20 yrs	see note	\$	5.45
4								
5	60 watt led		repalcement cost	fixture & labor	estimate 29% failure over 20 yrs			
6								
7	65 watt LED		repalcement cost		estimate 29% failure over 20 yrs			
8								
9	80/85 IND		repalcement cost					
10								
11	MH100	20000 hours	blub, photocontrol	\$ 40.27	\$ 90.39	4 years	\$ 130.66	32.665
12								
13	MV 175	24000 hours	bulb, photocontrol	\$ 15.89	\$ 90.39	5 years	\$ 106.28	21.256
14								
15	250W HPS	24000 hours	bulb, photocontrol, starter	\$ 41.00	\$ 90.39	5 yrs	\$ 131.39	\$ 26.28
16								
17	250 MH	20000 hours	bulb, photo control	\$ 25.00	\$ 90.39	4 yrs	\$ 115.39	\$ 28.85
18								
19	400 Watt MV	24000 hours	bulb, photocontrol	\$ 31.00	\$ 90.39	5 years	\$ 121.39	\$ 24.28
20								
21	400 watt Flood	24000 hours	bulb, photocontrol	\$ 31.00	\$ 90.39	5 years	\$ 121.39	\$ 24.28
22								
23	250 watt flood	20000 hours	bulb, photo control	\$ 25.00	\$ 90.39	4 yrs	\$ 115.39	\$ 28.85
24								
25								
26	145 watt LED		replacement cost		estimate 29% failure over 20 yrs	see note	\$	9.32