NON-CONFIDENTIAL

Request IR-37:

With respect to NSPI's response to Multeese IR-2(a):

(a) Please provide a copy of the "parallel and independent unmetered pricing study" referred to which resulted in the rates approved by the Board.

(b) If the study does not include the derivation of various street lighting rates, please provide the derivation of pricing for Rate Codes 121, 221 and 321 as approved by the Board in P-888.

Response IR-37:

(a–b) Please refer to Attachment 1.

Nova Scotia Power Incorporated

2009
UNMETERED CLASS
COST OF SERVICE AND PRICING STUDY REVIEW
Prepared in Support of 2009 Compliance Filing

SCHEDULE 1

STREET / CROSSWALK LIGHTING STUDY

Inventory Level as of JANUARY 2008

Rate Code	Description	Quantity			
		Full Charge	Energy & Maint	Energy Only	Total
001/003	Incandescent < 300 Watts	32	0	7	39
002	Incandescent > 300 Watts	2	0	0	2
		34	0	7	41
100	Mercury Vapour 100 Watts	276	0	0	276
101/201/301	Mercury Vapour 125 Watts	11,687	8	11	11,706
102/202/302	Mercury Vapour 175 Watts	2,932	22	152	3,106
103/203/303	Mercury Vapour 250 Watts	1,123	34	53	1,210
104/204/304	Mercury Vapour 400 Watts	1,445	9	15	1,469
105/205/305	Mercury Vapour 700 Watts	11	0	1	12
106/206/306	Mercury Vapour 1000 Watts	74	21	7	102
107	Mercury Vapour 250 Watt Cont. Oper.	5	0	0	5
		17,553	94	239	17,886
110	Fluorescent 2x24" 70 Watts	905	0	0	905
111	Fluorescent 2x48" 220 Watts	135	0	0	135
112	Fluorescent 2x72" 300 Watts	67	0	0	67
113/213	Fluorescent 4x72" 600 Watts	15	0	0	15
114/214	Fluorescent 1x96" 110 Watts	5	26	0	31
115/215	Fluorescent 1x72" 150 Watts	2	3	0	5
116	Fluorescent 4x48" 440 Watts	2	0	0	2
217	Fluorescent 1x48"	0	1	0	1
218	Fluorescent 2x48"	0	0	0	0
330	Fluorescent 4x35"	0	0	2	2
350	Fluorescent 4x96"	0	0	75	75
		1,131	30	77	1,238
117	Fluorescent Crosswalk Cont. 4x72"	0	0	1	1
118	Fluorescent Crosswalk Cont. 2x24"	0	0	16	16
119	Fluorescent Crosswalk Cont. 4x48"	0	0	21	21
120	Fluorescent Crosswalk Cont. 2x96"	0	0	32	32
150	Fluorescent Crosswalk Cont. 4x96"	0	0	21	21
		0	0	91	91
310	Fluorescent Crosswalk 2x24"	0	0	1	1
311	Fluorescent Crosswalk 4x48"	0	0	5	5
312	Fluorescent Crosswalk 2x72"	0	0	1	1
313	Fluorescent Crosswalk 4x72"	0	0	0	0
314	Fluorescent Crosswalk 1x96"	0	0	25	25
315	Fluorescent Crosswalk 1x72"	0	0	0	0
		0	0	32	32
121/221/321	High Pressure Sodium 250 Watts	5,346	141	1,691	7,178
122/326	High Pressure Sodium 400 Watts	3,752	0	87	3,839
123/222/322	High Pressure Sodium 70 Watts	39,004	248	6,322	45,574
124/223/323	High Pressure Sodium 100 Watts	46,746	109	2,540	49,395
125/224/324	High Pressure Sodium 150 Watts	5,420	229	1,310	6,959
126	HP Sodium 100 Watts - Cont. Oper.	10	0	0	10
327	High Pressure Sodium 500 Watts	0	0	3	3
328	High Pressure Sodium 1000 Watts	0	0	16	16
		100,278	727	11,969	112,974
130	Low Pressure Sodium 135 Watts	61	0	0	61
131/231/331	Low Pressure Sodium 180 Watts	876	43	37	956
132	Low Pressure Sodium 90 Watts	1	0	0	1
		938	43	37	1,018
140/342	Metallic Arc 400 Watts	1,286	0	156	1,442
141/341	Metallic Arc 1000 Watts	935	0	21	956
142/343	Metallic Arc 250 Watts	97	0	90	187
143	Metallic Arc 150 Watts	4	0	0	4
144	Metallic Arc 100 Watts	3	0	0	3
344	Metallic Arc 175 Watts	0	0	98	98
345	Metallic Arc 150 Watts	0	0	3	3
346	Metallic Arc 100 Watts	0	0	0	0
		2,325	0	368	2,693
	TOTAL	**122,259**	**894**	**12,820**	**135,973**

SCHEDULE 2

STREET / CROSSWALK LIGHTING STUDY
CALCULATION OF MAINTENANCE COSTS BY FIXTURE TYPE

(A) Code	(B) Lamp Type	(C) Service Life (Years)	(D) Maintenance Weighting Factors	(E) # of Full Chg & Eng.+Maint. Fixtures	(F) Weighting Total	(G) Cost Per Year	(H) Cost Per Month
A	Mercury Vapour	6.000	1.0000	5,952	5,952	$36.93	$3.08
B	Mercury Vapour - 125W	4.500	1.3333	11,695	15,593	$49.24	$4.10
C	Fluorescent	3.000	2.0000	1,161	2,322	$73.85	$6.15
D	High Pressure Sodium (Note1)	6.000	1.0000	101,005	101,005	$36.93	$3.08
E	Incandescent	0.625	9.6000	34	326	$354.50	$29.54
G	Metallic Arc 100W, 150W & 250W	2.500	2.4000	104	250	$88.63	$7.39
H	Metallic Arc 400W	3.750	1.6000	1,286	2,058	$59.08	$4.92
I	Metallic Arc 1000W	2.500	2.4000	935	2,244	$88.63	$7.39
J	Low Pressure Sodium	2.000	3.0000	981	2,943	$110.78	$9.23
				123,153	132,693		

Street Lighting Maint. Expenses
(from 2009 COSS, Exhibit 6A) **$4,900,000**

Annual Cost of High Pressure Sodium
(4,900,000 / 132,693 weighted fixtures) **$36.93**

Note 1: Maintenance weighting factors relative to High Pressure Sodium fixture, index = 1.0
Factor is: HPS service life / various fixture service lives

SCHEDULE 3

STREET / CROSSWALK LIGHTING STUDY

CAPITAL COST

Gross Plant Value (including installation costs) less Retirements of Street Lighting Equipment as of December 31, 2007 **$47,751,749**

Description	Unit Cost Mar/1977	Unit Cost June 2007	# of Fixtures	Total Value	
Incandescent < 300 Watts	$51.36	$64.20	32	$2,054	
Incandescent > 300 Watts	$63.62	$79.53	2	159	
Mercury Vapour 100 Watts	$76.55	$228.81	276	63,151	
Mercury Vapour 125 Watts	$77.16	$204.16	11,687	2,385,989	
Mercury Vapour 175 Watts	$85.30	$200.64	2,932	588,264	
Mercury Vapour 250 Watts	$87.24	$292.72	1,123	328,728	
Mercury Vapour 400 Watts	$107.82	$302.69	1,445	437,388	
Mercury Vapour 700 Watts	$485.12	$451.03	11	4,961	
Mercury Vapour 1000 Watts	$492.29	$575.25	74	42,569	
Mercury Vapour 250 Watt Cont. Oper.	$87.24	$292.72	5	1,464	
Fluorescent 2x24" 70 Watts	$106.44	$133.05	905	120,410	
Fluorescent 2x48" 220 Watts	$131.91	$164.89	135	22,260	
Fluorescent 2x72" 300 Watts	$178.72	$223.40	67	14,968	
Fluorescent 4x72" 600 Watts	$293.72	$367.15	15	5,507	
Fluorescent 1x96" 110 Watts	$160.00	$200.00	5	1,000	
Fluorescent 1x72" 150 Watts	$121.22	$151.53	2	303	
Fluorescent 4x48" 440 Watts	$188.91	$236.14	2	472	
High Pressure Sodium 70 Watts	N/A	$200.01	39,004	7,801,190	
High Pressure Sodium 100 Watts	N/A	$192.16	46,756	8,984,502	
High Pressure Sodium 150 Watts	N/A	$195.20	5,420	1,057,997	
High Pressure Sodium 250 Watts	$156.49	$242.65	5,346	1,297,231	
High Pressure Sodium 400 Watts	$173.73	$254.90	3,752	956,373	
High Pressure Sodium 1000 Watts	N/A	$637.24	0	0	
Low Pressure Sodium 90 Watts	N/A	$597.79	1	598	
Low Pressure Sodium 135 Watts	$371.69	$597.79	61	36,465	
Low Pressure Sodium 180 Watts	$226.10	$557.01	876	487,938	
Metallic Additive 250 Watts	N/A	$298.80	101	30,179	
Metallic Additive 400 Watts	$358.84	$305.51	1,286	392,887	
Metallic Additive 1000 Watts	$560.49	$527.15	935	492,883	
Metallic Additive 100 Watts	N/A		3	0	25,557,890
			122,259		

Total Installation Costs (Labour) $22,193,859

Installation Costs per Fixture **$183.85**

Escalation Factor (Incandescent)	125%
Escalation Factor (Fluorescent)	125%

Note: 2007 costs are based on stores material inventory cost as of June 2007 with the exception of Incandescent and fluorescent which have been assumed at 130% of 1977 costs.

Sample Material Cost - 100 Watt High Intensity (Pressure) Sodium :
Inventory Prices as of June 2007

Fixture, Ballast & Photocell	$100.21
Bracket Assembly (Davit)	62.09
Wire	18.78
Miscellaneous Hardware	2.55
Lamp Replacement	8.53
TOTAL	**$192.16**

SCHEDULE 4

STREET / CROSSWALK LIGHTING STUDY

Capital Cost Rate Component Calculation

Depreciation Rate for 2009	4.67%
Tax Adjusted Weighted Average Cost of Capital	11.59%

	Material Cost June/2007	Labour Cost	Total	Depreciation Expense	Cost of Capital	Total Annual Cost	Total Monthly Cost
Incandescent < 300 Watts	$64.20	$183.85	$248.05	$11.58	$28.75	$40.33	$3.36
Incandescent > 300 Watts	79.53	183.85	263.37	12.30	30.52	42.82	3.57
Mercury Vapour 100 Watts	228.81	183.85	412.65	19.27	47.83	67.10	5.59
Mercury Vapour 125 Watts	204.16	183.85	388.00	18.12	44.97	63.09	5.26
Mercury Vapour 175 Watts	200.64	183.85	384.48	17.96	44.56	62.52	5.21
Mercury Vapour 250 Watts	292.72	183.85	476.57	22.26	55.23	77.49	6.46
Mercury Vapour 400 Watts	302.69	183.85	486.54	22.72	56.39	79.11	6.59
Mercury Vapour 700 Watts	451.03	183.85	634.87	29.65	73.58	103.23	8.60
Mercury Vapour 1000 Watts	575.25	183.85	759.10	35.45	87.98	123.43	10.29
Mercury Vapour 250 Watt Cont. Oper.	292.72	183.85	476.57	22.26	55.23	77.49	6.46
Fluorescent 2x24" 70 Watts	133.05	183.85	316.90	14.80	36.73	51.53	4.29
Fluorescent 2x48" 220 Watts	164.89	183.85	348.73	16.29	40.42	56.70	4.73
Fluorescent 2x72" 300 Watts	223.40	183.85	407.25	19.02	47.20	66.22	5.52
Fluorescent 4x72" 600 Watts	367.15	183.85	551.00	25.73	63.86	89.59	7.47
Fluorescent 1x96" 110 Watts	200.00	183.85	383.85	17.93	44.49	62.41	5.20
Fluorescent 1x72" 150 Watts	151.53	183.85	335.37	15.66	38.87	54.53	4.54
Fluorescent 4x48" 440 Watts	236.14	183.85	419.98	19.61	48.68	68.29	5.69
High Pressure Sodium 70 Watts	200.01	183.85	383.86	17.93	44.49	62.42	5.20
High Pressure Sodium 100 Watts	192.16	183.85	376.00	17.56	43.58	61.14	5.09
High Pressure Sodium 150 Watts	195.20	183.85	379.05	17.70	43.93	61.63	5.14
High Pressure Sodium 250 Watts	242.65	183.85	426.50	19.92	49.43	69.35	5.78
High Pressure Sodium 400 Watts	254.90	183.85	438.74	20.49	50.85	71.34	5.94
High Pressure Sodium 1000 Watts	637.24	183.85	821.09	38.34	95.16	133.51	11.13
Low Pressure Sodium 90 Watts	597.79	183.85	781.64	36.50	90.59	127.09	10.59
Low Pressure Sodium 135 Watts	597.79	183.85	781.64	36.50	90.59	127.09	10.59
Low Pressure Sodium 180 Watts	557.01	183.85	740.85	34.60	85.86	120.46	10.04
Metallic Arc 250 Watts	298.80	183.85	482.64	22.54	55.94	78.48	6.54
Metallic Arc 400 Watts	305.51	183.85	489.36	22.85	56.72	79.57	6.63
Metallic Arc 1000 Watts	$527.15	$183.85	$710.99	$33.20	$82.40	$115.61	$9.63

SCHEDULE 5

STREET / CROSSWALK LIGHTING STUDY

Tax-Adjusted Weighted Average Cost of Capital For 2009 Street Light Rates

a) Weighted Average Cost of Capital - Pretax

	Proportion	Cost	Extended
ST Debt	7.10%	6.17%	0.44%
LT Debt	46.40%	8.16%	3.79%
Preferred	9.00%	5.42%	0.49%
Common	37.50%	9.35%	3.51%
	100.00%		8.22%

WACC - pretax cost	8.22%

b) Additional income tax for common equity

Extended equity cost	3.51%
Effective tax rate (excluding surtax)	35.0%
Income tax	1.89%

WACC - equity tax cost	1.89%

c) Large Corporations Tax

Provincial capital tax (2009)	0.175%
Federal capital tax (2009)	0.000%
Ave. NBV - Street Lighting	$25.914
Ave. NBV - Assigned GP Plt.	1.863
Ave. Deferred Chgs & W/C	3.410
NPV - Total Street Lighting	$31.187
Provincial capital tax	$0.055
Federal capital tax	$0.000
Total	$0.055
Percentage of NBV	0.18%

WACC - Large Corporations Tax	0.18%

d) Grants in Lieu of Property Tax

Total 2009 Forecasted Expense	$34.800
St. Lgts. % of Total Electric Plant	1.17%
St. Lgts. Allocated Amount	$0.406
Percentage of NBV	1.30%

WACC - Grants in Lieu of Property Tax	1.30%

Total WACC - Interest / Carrying Cost	**11.59%**

SCHEDULE 6

STREET / CROSSWALK LIGHTING STUDY
AREA LIGHTING MATERIAL COST ANALYSIS
June 2007

Light Type Street Lights	Material Cost	Fixture	Lamp	Photocell	Davit	Wire	Connectors	Fasteners
Incandescent < 300 Watts	$51.36	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Incandescent > 300 Watts	$63.62	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Mercury Vapour 100 Watts	$228.81	**$122.41**	$15.99	$6.99	$62.09	$18.78	$0.94	$1.61
Mercury Vapour 125 Watts	$204.16	**$102.95**	$10.80	$6.99	$62.09	$18.78	$0.94	$1.61
Mercury Vapour 175 Watts	$200.64	**$102.95**	$7.28	$6.99	$62.09	$18.78	$0.94	$1.61
Mercury Vapour 250 Watts	$292.72	**$189.80**	$7.96	$6.99	$66.64	$18.78	$0.94	$1.61
Mercury Vapour 400 Watts	$302.69	**$198.75**	$8.98	$6.99	$66.64	$18.78	$0.94	$1.61
Mercury Vapour 700 Watts	$451.03	**$318.97**	$37.10	$6.99	$66.64	$18.78	$0.94	$1.61
Mercury Vapour 1000 Watts	$575.25	**$439.19**	$41.10	$6.99	$66.64	$18.78	$0.94	$1.61
Mercury Vapour 250 Watt Cont. Oper.	$292.72	**$189.80**	$7.96	$6.99	$66.64	$18.78	$0.94	$1.61
Fluorescent 2x24" 70 Watts	$106.44	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Fluorescent 2x48" 220 Watts	$131.91	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Fluorescent 2x72" 300 Watts	$178.72	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Fluorescent 4x72" 600 Watts	$293.72	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Fluorescent 1x96" 110 Watts	$160.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Fluorescent 1x72" 150 Watts	$121.22	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
Fluorescent 4x48" 440 Watts	$188.91	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00	$0.00
High Pressure Sodium 70W	$200.01	$107.80	**$8.79**	$0.00	$62.09	$18.78	$0.94	$1.61
High Pressure Sodium 100W	$192.16	$100.21	**$8.53**	$0.00	$62.09	$18.78	$0.94	$1.61
High Pressure Sodium 150W	$195.20	$102.95	**$8.83**	$0.00	$62.09	$18.78	$0.94	$1.61
High Pressure Sodium 250 Watts	$242.65	$145.32	**$9.36**	$0.00	$66.64	$18.78	$0.94	$1.61
High Pressure Sodium 400 Watts	$254.90	$156.93	**$10.00**	$0.00	$66.64	$18.78	$0.94	$1.61
Low Pressure Sodium 90W	$597.79	$463.38	$44.00	$6.99	$62.09	$18.78	$0.94	$1.61
Low Pressure Sodium 135 Watts	$597.79	$463.38	$44.00	$6.99	$62.09	$18.78	$0.94	$1.61
Low Pressure Sodium 180 Watts	$557.01	$411.00	$55.60	$6.99	$62.09	$18.78	$0.94	$1.61
Metallic Additive 250W	$298.80	$191.62	**$19.21**	$0.00	$66.64	$18.78	$0.94	$1.61
Metallic Arc 400 Watts	$305.51	$202.61	**$14.93**	$0.00	$66.64	$18.78	$0.94	$1.61
Metallic Arc 1000 Watts	$527.15	$407.24	**$31.94**	$0.00	$66.64	$18.78	$0.94	$1.61

Light Type Flood Lights	Material Cost	Fixture	Lamp	Photocell	Davit	Wire	Connectors	Fasteners
Mercury Vapour 175 Watts	$69.84	$53.03	$7.28	$6.99	$0.00	$0.00	$0.94	$1.61
Mercury Vapour 250 Watts	$415.39	$397.90	$7.96	$6.99	$0.00	$0.00	$0.94	$1.61
Mercury Vapour 400 Watts	$299.68	$281.17	$8.98	$6.99	$0.00	$0.00	$0.94	$1.61
Mercury Vapour 1000 Watts	$489.82	$439.19	$41.10	$6.99	$0.00	$0.00	$0.94	$1.61
HIS 150W	$215.53	$180.76	$25.23	$6.99	$0.00	$0.00	$0.94	$1.61
High Intensity Sodium 250 Watts	$200.68	$181.78	$9.36	$6.99	$0.00	$0.00	$0.94	$1.61
High Intensity Sodium 400 Watts	$211.74	$192.21	$10.00	$6.99	$0.00	$0.00	$0.94	$1.61
Metallic Additive 250W	$220.36	$191.62	$19.21	$6.99	$0.00	$0.00	$0.94	$1.61
Metallic Arc 400 Watts	$227.08	$202.61	$14.93	$6.99	$0.00	$0.00	$0.94	$1.61
Metallic Arc 1000 Watts	$448.71	$407.24	$31.94	$6.99	$0.00	$0.00	$0.94	$1.61

Date: 7/6/2011

SCHEDULE 7

STREET / CROSSWALK LIGHTING STUDY

AREA LIGHTING MATERIAL COST ANALYSIS
June 2007

ITEM	DESCRIPTION	AVG COST	Location
0000386440	LAMP FLUORESCENT 40W 48	1.35	
0000386450	LAMP FLUORESCENT 40W 48	1.35	
0000386700	LAMP FLUORESCENT 75W 96	3.49	
0000386710	LAMP FLUORESCENT 205W	3.95	
0000387070	LAMP FLUORESCENT 35W 24	4.19	
0000387190	LAMP FLUORESCENT 60W 48	3.14	
0000387360	LAMP FLUORESCENT 85W 72	6.54	
0000388000	LAMP 100 WATT M.V.	15.99	
0000388180	LAMP 125 WATT M.V.	10.80	
0000388330	LAMP 175 WATT M.V.	7.28	
0000388500	LAMP 250 WATT M.V.	7.96	
0000388660	LAMP 400 WATT M.V.	8.98	
0000388770	LAMP 700 WATT M.V.	37.10	
0000388980	LAMP 1000 WATT MV	41.10	
0000388990	LAMP 70 WATT H.P.S.	8.79	
0000389000	LAMP 100 WATT H.P.S.	8.53	
0000389030	LAMP 135 WATT L.P.S.	44.00	
0000389040	LAMP 150 WATT HPS 100V	25.23	
0000389060	LAMP 150 WATT H.P.S.55V	8.83	
0000389090	LAMP 180 WATT L.P.S.	55.60	
0000389250	LAMP 250 WATT H.P.S.	9.36	
0000389400	LAMP 400 WATT H.P.S.	10.00	
0000389450	LAMP 1000W HPS	60.47	
0000389700	LAMP HALIDE 250W	19.21	
0000389770	LAMP HALIDE 400W	14.93	
0000389810	LAMP HALIDE 1000W	31.94	
0000389900	LAMP STREET LITE SIGNAL	2.21	
0002103270	CONDUIT FLEX BLK 1/2"	4.39	
0050091540	BOLT LAG 1/2"X 4" GALV	0.53	
0050103120	BOLT MACHINE 5/8" X 12"	1.08	
0054223510	CRIMPIT #2/0- #8 WR139	0.47	
0057151000	BRACKET 10'L	88.91	
0057152040	BRACKET 1 1/4"X4' FIXED	58.38	
0057152220	BRACKET 4'X 2' 16" TEN	27.46	
0057154060	BRACKET 1 1/4"X6' LOWER	62.09	
0057155060	BRACKET SWIVEL 1 1/4 X6	18.91	
0057155720	BRACKET TAPERED 6' X 2"	48.90	
0057155723	BRACKET TAPERED 8'	87.05	
0057155725	BRACKET TAPERED 2"X10'	106.44	
0057156020	BRACKET LOWER 2" X 6'	66.64	
0057156080	BRACKET FIXED 2" X 8'	87.48	
0057157010	BRACKET TAPERED 12'L	141.42	
0057158140	PLATE POLE ST LITE 1 1/	9.46	
0057158220	PLATE POLE ST LIGHT 2"	26.24	
0057350350	LUMINAIRE LPS 135W	463.38	

SCHEDULE 7

STREET / CROSSWALK LIGHTING STUDY

AREA LIGHTING MATERIAL COST ANALYSIS
June 2007

ITEM	DESCRIPTION	AVG COST	Location
0057350720	LUM LPS 180W 120/240/347 V	411.00	R04B
0057350750	LUMINAIRE LPS 180W 240V	493.30	XX
0057350800	LUMINAIRE LPS 180W 347V	495.00	XX
0057350830	LUMINAIRE HPS 70W POLY	73.33	XX
57350835	LUM. 70W POLY C/W LAMP	99.23	XX
0057350836	LUM 70W POLY ALUM.ALLOY	97.70	XX
0057350837	LUMINAIRE 70W HPS CWA ACRY	122.82	C01A
0057350850	LUMINAIRE HPS 70W GLASS	69.32	XX
0057350855	LUM. 70W GLASS C/W LAMP	97.68	C03A
0057350856	LUM 70W GLASS AL. ALLOY	99.37	M12D
0057350857	LUM. 70W GLASS CWI BAL.	120.32	M08A
0057350860	LUM 100W HPS POLY	75.00	XX
0057350865	LUM. 100W POLY C/W LAMP	100.21	XX
0057350866	LUMINAIRE 100W ACRYLIC HPS	124.85	C07A
0057350867	LUM 100W POLY AL. ALLOY	98.37	XX
0057350875	LUM. 100W GLASS C/WLAMP	98.76	XX
0057350877	LUM. 100W GLASS CWI BAL	135.75	XX
0057350880	LUMINAIRE HPS 150W GLAS	82.27	XX
0057350885	LUM. 150W GLASS C/WLAMP	100.95	XX
0057350886	LUMINAIRE 150W HPS CWI GLAS	145.97	M05A
0057350887	LUM. 150W HPS 240V GLAS	150.88	C09A
0057350890	LUMINAIRE HPS 150W POLY	79.24	XX
0057350895	LUM. 150W POLY C/W LAMP	102.95	XX
0057351315	LUMINAIRE 250W HPS CWI GLAS	145.32	C07A
0057351400	LUMINAIRE 250W HPS CWI 347V	160.36	C05A
0057351710	LUMINAIRE HPS 400W GLAS	109.60	XX
0057351715	LUMINAIRE 400W HPS CWI 120/2	156.93	M12A
0057351720	LUMINAIRE HPS 400W 240V	204.30	XX
0057351730	LUMINAIRE HPS 400W 347V	196.00	XX
0057351760	LUMINAIRE 400W 600V HPS CWI	169.81	M12A
0057353330	LUMINAIRE MTL-HLDE 400W	281.54	XX
0057353500	LUMINAIRE HALIDE 1000 W	300.00	XX
0057353550	LUMINAIRE HALIDE 1000 W	294.79	T01C
0057400920	AREA LIGHT MV 125 W	107.76	XX
0057401200	LUMINAIRES 70W H-P.S.	107.80	D14B
0057401205	DUSK-T-DAWN 70W HPS CWA	200.30	D08B
0057402020	AREA LIGHT MV 175 W	92.88	XX
0057402100	LUMINAIRES 100W H.P.S.	106.37	XX
0057402105	DUSK-T-DAWN 100W HPS CWA	140.50	C15A
0057402150	FLOODLIGHT 150W HPS CWI	180.76	C17A
0057402240	FLOODLIGHT M.V. 175W	53.03	
0057403330	FLOODLIGHT M V 250 W	397.90	XX
0057403500	FLOODLIGHT 250W HPS CWI	181.78	
0057404050	FLOODLIGHT M V 400 W	281.17	XX
0057404600	FLOODLIGHT 400W HPS CWI	192.21	C11A

SCHEDULE 7

STREET / CROSSWALK LIGHTING STUDY

AREA LIGHTING MATERIAL COST ANALYSIS
June 2007

ITEM	DESCRIPTION	AVG COST	Location
0057408250	FLOODLIGHT MTL HAL.250W	191.62	D05B
0057408500	FLOODLIGHT 400W MTL-HAL CW	202.61	D03A
0057409000	FLOODLIGHT 1000W MH CWI	407.24	
0057409380	FLOODLIGHT M V 1000 W	439.19	XX
0057600450	BRACKET & ADAPTORS	9.15	
0057601010	CAP SHORTING TWIST LOCK	4.80	
0057601200	CONTROL 120 V PHOTO	7.05	
0057601400	CONTROL ELECT 120V PHOTOC	6.99	
0057602000	PHOTO CONTROL 120V HD	19.90	
0057602400	CONTROL 240V ELECT PHOTOC	11.01	
0057602960	GUARD WIRE FOR ST-LITE	50.44	
0057603800	REFRACTOR GLASS	32.60	
0057603900	REFRACTORS POLYCARBON #	0.00	
0057604020	REFRACTOR POLY LU B2214	48.03	
0057604050	REFRACTOR POLY LU B2217	73.74	
0057604080	REFRACTOR POLYCARBON #9	21.07	
0057604170	REFRACTOR GLASS	66.37	
0057604200	REFRACTOR ACRYLIC VB15	40.70	
0057604210	REFRACTOR POLY LUM VB15	78.68	
0057604220	REFRACTOR AREA LIGHT	18.66	
0057604240	REFRACTOR GLASS OV15	16.00	
0057604250	REFRACTOR POLY LUM 0V15	24.00	
0057604255	REFRACTOR STREETLIGHT OV	17.85	
0057604270	REFRACTOR GLASS OV25	25.89	
0057604280	REFRACTOR POLY OV25	92.87	
0057604300	REFRACTOR GLASS OV50	17.50	
0057605800	REDUCER LAMPHOLDER,	6.25	
0057606100	REFRACTOR 125 W M V	34.36	
0057606500	REFRACTOR FOR SODIUM	71.31	
0057606550	REFRACTOR FOR SODIUM	88.62	
0057606700	REFRACTOR 250 W M V	38.69	
0057606950	REFRACTOR 400 W M V	33.01	
0057607300	RELAY 30 AMP 110 V MURC	33.89	
0057607330	RELAY 30 AMP 125 V	140.04	
0057607400	RELAY 60 AMP 115 V	215.37	
0057607440	RELAY 60 AMP 250 V	191.29	
0057608690	STARTERS HPS LUMINAIRES	31.63	
0057608700	STARTER FOR HPS 70-150W	40.95	
0057608703	STARTER FOR HPS 55V	41.17	
0057608710	STARTER FOR SODIUM	40.41	
0057608713	STARTER KIT HPS 55V 70/	31.75	
0057608720	STARTER FOR HPS 150-400	40.76	
0057608722	STARTER FOR HPS 100V	36.35	
0057608730	STARTER FOR SODIUM	48.16	
0065734220	CABLE CU ST-LITE 2C #12	1.20	

SCHEDULE 8

STREET / CROSSWALK LIGHTING STUDY
LAMP LIFE ANALYSIS
September 2005

Assumptions: Total annual photocell operating time is based on 4,000 hours per year or 333 hours per month.
All Average Rated Life Spans are as indicated in the IES Lighting Handbook, 1981 Edition
(IES = Illuminating Engineering Society)

Lamp Type	Average Life (Hrs)	Burning Hours per Year	Service Life (Years)	Life Relative to 100W HPS	Replacements Relative to 100W HPS
Incandescent	2500	4000	0.6	0.10	9.60
Flourescent (48 in., T12, Recess Base)	12000	4000	3.0	0.50	2.00
Mercury Vapour	24000	4000	6.0	1.00	1.00
Mercury Vapour 125W *See Note	18000	4000	4.5	0.75	1.33
Metal Halide 175W	7500	4000	1.9	0.31	3.20
Metal Halide 250W	10000	4000	2.5	0.42	2.40
Metal Halide 400W	15000	4000	3.8	0.63	1.60
Metal Halide 1000W	10000	4000	2.5	0.42	2.40
High Pressure Sodium 70W	24000	4000	6.0	1.00	1.00
High Pressure Sodium 100W	24000	4000	6.0	1.00	1.00
Low Pressure Sodium	8000	4000	2.0	0.33	3.00

*** No Average life data was available for this lamp size in the references listed above. 75% of the quoted life for all Mercury Lamps was used.**

STREET / CROSSWALK LIGHTING STUDY

ANALYSIS & COMPARISON OF PROPOSED VS CURRENT STREET LIGHTING RATES
EFFECTIVE JANUARY 1, 2009

Description	Rate Code	kW.h/Mo.	Power & Energy	Maintenance	Capital	2009 New Proposed Rates	2009 New Proposed Revenue	2007 Current Rates	Percent Change	Inv. Level at Jan. 2008 Units	Revenue Variance	Connected Load (kW)	Total Load (kW)	Continuous Load (kW)
Incandescent < 300 Watts - Note 1	001	97.00	$10.58	$3.08	$6.46	$20.12	$7,725	$19.50	3.2%	32	$237	0.291	9.312	
Incandescent > 300 Watts - Note 1	002	154.00	16.79	3.08	6.59	26.46	635	25.79	2.6%	2	16	0.462	0.924	
Incandescent < 300 Watts - Note 1	003	97.00	10.58	0.00	0.00	10.58	889	10.48	1.0%	7	8	0.291	2.037	
										41	261			
Mercury Vapour :														
Mercury Vapour 100 Watts	100	43.00	4.70	3.08	5.59	13.37	44,286	12.72	5.1%	276	2,158	0.129	35.604	
Mercury Vapour 125 Watts	101	52.00	5.66	4.10	5.26	15.02	2,106,109	14.27	5.2%	11,687	104,827	0.156	1,823.172	
Mercury Vapour 175 Watts	102	69.00	7.51	3.08	5.21	15.80	555,898	15.14	4.4%	2,932	23,212	0.207	606.924	
Mercury Vapour 250 Watts	103	97.00	10.58	3.08	6.46	20.12	271,104	19.50	3.2%	1,123	8,322	0.291	326.793	
Mercury Vapour 400 Watts	104	154.00	16.79	3.08	6.59	26.46	458,861	25.79	2.6%	1,445	11,663	0.462	667.590	
Mercury Vapour 700 Watts	105	260.00	28.36	3.08	8.60	40.04	5,286	39.28	1.9%	11	101	0.780	8.580	
Mercury Vapour 1000 Watts	106	363.00	39.60	3.08	10.29	52.97	47,034	52.13	1.6%	74	742	1.089	80.586	
Mercury Vapour 250 Watt Cont. Oper.	107	212.00	17.93	6.16	6.46	30.55	1,833	29.55	3.4%	5	60	0.291	1.455	1.455
Mercury Vapour 125 Watts	201	52.00	5.66	4.10	0.00	9.76	937	9.30	4.9%	8	44	0.156	1.248	
Mercury Vapour 175 Watts	202	69.00	7.51	3.08	0.00	10.59	2,796	10.22	3.6%	22	98	0.207	4.554	
Mercury Vapour 250 Watts	203	97.00	10.58	3.08	0.00	13.66	5,573	13.24	3.2%	34	171	0.291	9.894	
Mercury Vapour 400 Watts	204	154.00	16.79	3.08	0.00	19.87	2,146	19.39	2.5%	9	52	0.462	4.158	
Mercury Vapour 700 Watts	205	260.00	28.36	3.08	0.00	31.44	0	30.86	1.9%	0	0	0.780	0.000	
Mercury Vapour 1000 Watts	206	363.00	39.60	3.08	0.00	42.68	10,755	42.01	1.6%	21	169	1.089	22.869	
Mercury Vapour 125 Watts	301	52.00	5.66	0.00	0.00	5.66	747	5.62	0.7%	11	5	0.156	1.716	
Mercury Vapour 175 Watts	302	69.00	7.51	0.00	0.00	7.51	13,698	7.46	0.7%	152	91	0.207	31.464	
Mercury Vapour 250 Watts	303	97.00	10.58	0.00	0.00	10.58	6,729	10.48	1.0%	53	64	0.291	15.423	
Mercury Vapour 400 Watts	304	154.00	16.79	0.00	0.00	16.79	3,022	16.63	1.0%	15	29	0.462	6.930	
Mercury Vapour 700 Watts	305	260.00	28.36	0.00	0.00	28.36	340	28.10	0.9%	1	3	0.780	0.780	
Mercury Vapour 1000 Watts	306	363.00	39.60	0.00	0.00	39.60	3,326	39.25	0.9%	7	29	1.089	7.623	
										17,886	151,840			
Fluorescent :														
Fluorescent 2x24" 70 Watts	110	30.00	3.28	6.15	4.29	13.72	149,042	13.07	5.0%	905	7,102	0.091	82.355	
Fluorescent 2x48" 220 Watts	111	85.00	9.27	6.15	4.73	20.15	32,635	19.44	3.6%	135	1,143	0.254	34.290	
Fluorescent 2x72" 300 Watts	112	116.00	12.67	6.15	5.52	24.34	19,568	23.62	3.0%	67	577	0.348	23.316	
Fluorescent 4x72" 600 Watts	113	222.00	24.20	6.15	7.47	37.82	6,807	37.00	2.2%	15	147	0.665	9.975	
Fluorescent 1x96" 110 Watts	114	47.00	5.12	6.15	5.20	16.47	988	15.80	4.2%	5	40	0.141	0.705	
Fluorescent 1x72" 150 Watts	115	60.00	6.55	6.15	4.54	17.24	414	16.56	4.1%	2	16	0.180	0.360	
Fluorescent 4x48" 440 Watts	116	166.00	18.13	6.15	5.69	29.97	719	29.19	2.7%	2	19	0.499	0.998	
										1,131	9,044			
Fluorescent 4x72" 600 Watts	213	222.00	24.20	6.15	0.00	30.35	0	29.51	2.8%	0	0	0.665	0.000	
Fluorescent 1x96" 110 Watts	214	47.00	5.12	6.15	0.00	11.27	3,516	10.59	6.4%	26	212	0.141	3.666	
Fluorescent 1x72" 150 Watts	215	60.00	6.55	6.15	0.00	12.70	457	12.01	5.7%	3	25	0.180	0.540	
Fluorescent 4x48" 440 Watts	216	166.00	18.13	6.15	0.00	24.28	0	23.49	3.4%	0	0	0.499	0.000	
Fluorescent 1x48" 120 Watts	217	49.00	5.33	6.15	0.00	11.48	138	10.80	6.3%	1	8	0.146	0.146	
Fluorescent 2x48" 220 Watts	218	85.00	9.27	6.15	0.00	15.42	0	14.71	4.8%	0	0	0.254	0.000	
Fluorescent 4x35"	330	47.00	5.12	0.00	0.00	5.12	123	5.06	1.2%	2	1	0.140	0.280	
										32	246			

STREET / CROSSWALK LIGHTING STUDY

ANALYSIS & COMPARISON OF PROPOSED VS CURRENT STREET LIGHTING RATES
EFFECTIVE JANUARY 1, 2009

Description	Rate Code	kW.h/Mo.	Power & Energy	Maintenance	Capital	2009 New Proposed Rates	2009 New Proposed Revenue	2007 Current Rates	Percent Change	Inv. Level at Jan. 2008 Units	Revenue Variance	Connected Load (kW)	Total Load (kW)	Continuous Load (kW)
Fluorescent Crosswalk - Continuous Burning - Customer Owned :														
Fluorescent 4x72" 600 Watts	117	486.00	41.09	0.00	0.00	41.09	493	40.73	0.9%	1	4	0.665	0.665	0.665
Fluorescent 2x24" 70 Watts	118	66.00	5.57	0.00	0.00	5.57	1,069	5.52	0.9%	16	10	0.091	1.456	1.456
Fluorescent 4x48" 440 Watts	119	364.00	30.79	0.00	0.00	30.79	7,759	30.53	0.9%	21	66	0.499	10.479	10.479
Fluorescent 2x96"	120	254.00	21.49	0.00	0.00	21.49	8,252	21.31	0.8%	32	69	0.348	11.136	11.136
Fluorescent 4x96"	150	613.00	51.84	0.00	0.00	51.84	13,064	51.38	0.9%	21	116	0.840	17.640	17.640
										91	265			
Fluorescent Crosswalk - Photocell Burning - Customer Owned :														
Fluorescent 2x24" 70 Watts	310	30.00	3.28	0.00	0.00	3.28	39	3.25	0.9%	1	0	0.091	0.091	
Fluorescent 4x48" 440 Watts	311	166.00	18.13	0.00	0.00	18.13	1,088	17.97	0.9%	5	10	0.499	2.495	
Fluorescent 2x72" 300 Watts	312	116.00	12.67	0.00	0.00	12.67	152	12.57	0.8%	1	1	0.348	0.348	
Fluorescent 4x72" 600 Watts	313	222.00	24.20	0.00	0.00	24.20	0	23.99	0.9%	0	0	0.665	0.000	
Fluorescent 1x96" 110 Watts	314	47.00	5.12	0.00	0.00	5.12	1,536	5.08	0.8%	25	12	0.142	3.550	
Fluorescent 1x72" 150 Watts	315	60.00	6.55	0.00	0.00	6.55	0	6.49	0.9%	0	0	0.180	0.000	
Fluorescent 4x96"	350	280.00	30.55	0.00	0.00	30.55	27,495	30.28	0.9%	75	243	0.841	63.075	
										107	266			
Low Pressure Sodium :														
Low Pressure Sodium 135 Watts	130	60.00	6.55	9.23	10.59	26.37	19,304	25.11	5.0%	61	923	0.180	10.980	
Low Pressure Sodium 180 Watts	131	80.00	8.73	9.23	10.04	28.00	294,321	28.77	-2.7%	876	(8,109)	0.240	210.240	
Low Pressure Sodium 90 Watts	132	45.00	4.90	9.23	10.59	24.72	297	23.49	5.2%	1	15	0.135	0.135	
Low Pressure Sodium 180 Watts E&M	231	80.00	8.73	9.23	0.00	17.96	9,267	16.93	6.1%	43	531	0.240	10.320	
Low Pressure Sodium 180 Watts E/O	331	80.00	8.73	0.00	0.00	8.73	3,876	8.65	0.9%	37	36	0.240	8.880	
										1,018	(6,604)			
High Pressure Sodium :														
High Pressure Sodium 250 Watts	121	100.00	10.91	3.08	5.78	19.77	1,268,227	19.11	3.4%	5,346	42,283	0.300	1,603.800	
High Pressure Sodium 400 Watts	122	150.00	16.36	3.08	5.94	25.38	1,142,933	24.70	2.8%	3,752	30,841	0.450	1,688.400	
High Pressure Sodium 70 Watts	123	32.00	3.48	3.08	5.20	11.76	5,504,837	11.11	5.9%	39,004	304,824	0.096	3,744.384	
High Pressure Sodium 100 Watts	124	45.00	4.90	3.08	5.09	13.07	7,334,369	12.42	5.3%	46,746	367,345	0.135	6,310.710	
High Pressure Sodium 150 Watts	125	65.00	7.09	3.08	5.14	15.31	995,510	14.62	4.7%	5,420	44,625	0.195	1,056.900	
HP Sodium 100 Watts - Cont. Oper.	126	99.00	8.35	6.16	5.09	19.60	2,353	18.60	5.4%	10	121	0.135	1.350	1.350
High Pressure Sodium 250 Watts	221	100.00	10.91	3.08	0.00	13.99	23,671	13.58	3.0%	141	694	0.300	42.300	
High Pressure Sodium 70 Watts	222	32.00	3.48	3.08	0.00	6.56	19,523	6.21	5.6%	248	1,042	0.096	23.808	
High Pressure Sodium 100 Watts	223	45.00	4.90	3.08	0.00	7.98	10,438	7.63	4.6%	109	458	0.135	14.715	
High Pressure Sodium 150 Watts	224	65.00	7.09	3.08	0.00	10.17	27,947	9.79	3.9%	229	1,044	0.195	44.655	
High Pressure Sodium 250 Watts	321	100.00	10.91	0.00	0.00	10.91	221,386	10.82	0.8%	1,691	1,826	0.300	507.300	
High Pressure Sodium 70 Watts	322	32.00	3.48	0.00	0.00	3.48	264,007	3.45	0.9%	6,322	2,276	0.096	606.912	
High Pressure Sodium 100 Watts	323	45.00	4.90	0.00	0.00	4.90	149,352	4.87	0.6%	2,540	914	0.135	342.900	
High Pressure Sodium 150 Watts	324	65.00	7.09	0.00	0.00	7.09	111,455	7.03	0.9%	1,310	943	0.195	255.450	
High Pressure Sodium 400 Watts	326	150.00	16.36	0.00	0.00	16.36	17,080	16.21	0.9%	87	157	0.450	39.150	
High Pressure Sodium 500 Watts	327	183.00	19.97	0.00	0.00	19.97	719	19.81	0.8%	3	6	0.550	1.650	
High Pressure Sodium 1000 Watts	328	363.00	39.61	0.00	0.00	39.61	7,605	39.26	0.9%	16	67	1.090	17.440	
High Pressure Sodium 1500 Watts	329	500.00	54.54	0.00	0.00	54.54	654		#DIV/0!	1	654	1.090	1.090	
										112,974	799,466			

STREET / CROSSWALK LIGHTING STUDY

ANALYSIS & COMPARISON OF PROPOSED VS CURRENT STREET LIGHTING RATES
EFFECTIVE JANUARY 1, 2009

Description	Rate Code	kW.h/Mo.	Power & Energy	Maintenance	Capital	2009 New Proposed Rates	2009 New Proposed Revenue	2007 Current Rates	Percent Change	Inv. Level at Jan. 2008 Units	Revenue Variance	Connected Load (kW)	Total Load (kW)	Continuous Load (kW)
Metallic Additive :														
Metallic Arc 400 Watts	140	150.00	16.36	4.92	6.63	27.91	430,720	26.92	3.7%	1,286	15,290	0.450	578.700	
Metallic Arc 1000 Watts	141	360.00	39.27	7.39	9.63	56.29	631,618	55.22	1.9%	935	12,050	1.080	1,009.800	
Metallic Arc 250 Watts	142	100.00	10.91	7.39	6.54	24.84	28,914	25.65	-3.2%	97	(943)	0.300	29.100	
Metallic Arc 150 Watts	143	67.00	7.30	7.39	6.54	21.23	1,019	22.06	-3.8%	4	(40)	0.200	*0.800*	
Metallic Arc 100 Watts	144	50.00	5.45	7.39	6.54	19.38	698	20.23	-4.2%	3	(31)	0.150	0.450	
Metallic Arc 1000 Watts	341	360.00	39.27	0	0	39.27	9,896	38.92	0.9%	21	88	1.080	22.680	
Metallic Arc 400 Watts	342	150.00	16.36	0	0	16.36	30,626	16.21	0.9%	156	281	0.450	70.200	
Metallic Arc 250 Watts	343	100.00	10.91	0	0	10.91	11,783	10.82	0.8%	90	97	0.300	27.000	
Metallic Arc 175 Watts	344	75.00	8.18	0	0	8.18	9,620	8.11	0.9%	98	82	0.225	22.050	
Metallic Arc 150 Watts	345	67.00	7.30	0	0	7.30	263	7.23	1.0%	3	3	0.200	0.600	
Metallic Arc 100 Watts	346	50.00	5.45	0	0	5.45	0	5.40	0.9%	0	0	0.150	0.000	
										2,693	26,877			
TOTALS							$22,409,372.54			135,974	$981,988		22,242.051	44.181

Count = 83

Note 1 - Red highligted P&E charges relate to calculated rounding differences using Misc. Small Loads Tariff.
Note 2 - Incandescent rates were set at 250W and 400W Mercury Vapour

Calculation of Power & Energy Rate : Based on Misc. Small Loads Tariff Rate Components & 1kW lighting load			
Photocell Operation (4000 burning hours per year)			
Demand Charge $ 8.43/kW (annual)			$102.06
Energy Charge :			
1st Block : 1st 200 kW.h (annual)	2,400	0.09665	231.96
2nd Block : All additional (annual)	1,600	0.06396	102.34
			$436.36
Rate per kW.h	4,000		**$0.1090891**
Continuous Burning (8760 burning hours per year)			
Demand Charge $ 8.43/kW (annual)			$102.06
Energy Charge :			
1st Block : 1st 200 kW.h (annual)	2,400	0.09665	231.96
2nd Block : All additional (annual)	6,360	0.06396	406.79
			$740.81
Rate per kW.h	8,760		**$0.0845669**

Revenue Summary by Rate Component

	Power & Energy	Maintenance	Capital	Total
2009 Proposed Revenue (Using Actual Jan 2008 Inv. Level)				
Current Rates	$9,470,670	$4,329,764	$7,315,865	$21,116,299
Proposed Rates	9,704,758	4,892,737	7,811,878	22,409,373
Variance	234,088	562,973	496,013	1,293,074
Add. Forecasted S/L Revenue using 2009 Load Forecast	193,314	145,290	243,169	581,773
Adjusted 2009 Prop. S/L Revenue	9,898,072	5,038,027	8,055,047	22,991,146
Prop. Misc. Lighting Revenue	2,160,872			2,160,872
Add. Forecasted Misc. Revenue using 2009 Load Forecast	42,830			42,830
Total Prop. Unmetered Rev.	**$12,101,774**	**$5,038,027**	**$8,055,047**	**$25,194,848**

NON-CONFIDENTIAL

Request IR-38:

With respect to NSPI's response to Multeese IR-2(b), please provide the derivation of the Revenue numbers in the final table of that response.

Response IR-38:

Please refer to Multeese IR-37 Attachment 1 (Revenue Summary by Rate Component, page 15).

NON-CONFIDENTIAL

Request IR-39:

With respect to NSPI's response to Multeese IR-13, the last paragraph before the Revised Schedule 5A refers to adjustments to Line 42 of Exhibit 4 of the Cost of Service Study. For clarity, please provide a revised Line 42.

Response IR-39:

The revised Line 42 of Exhibit 4 in millions of dollars is shown below.

Category	Total Expenses ($M)	Prod. Expenses ($M)	Trans. Expenses ($M)	Dist. Expenses ($M)	Retail Expense ($M)	Direct Expenses ($M)
Corporate Taxes	40.70	27.68	4.85	8.04	0	0.14

NON-CONFIDENTIAL

Request IR-40:

With respect to NSPI's response to Multeese IR-13, the revised Schedule 5A LED Gross Plant Values and Net Plant Values do not appear to have been changed to reflect the response to this IR. Please provide Schedule 5A with those adjustments included.

Response IR-40:

Please refer to Attachment 1.

SCHEDULE 5A

STREET / CROSSWALK LIGHTING STUDY

Tax-Adjusted Weighted Average Cost of Capital Amounts by Components For 2012 Street Light Rates

Capital Cost Expenses (Net Plant Value) For 2012 Street Light Rates

Depreciation Rate	**5.33%**
Salvage Rate	**0.00%**
Salvage Incl. in Depreciation Rate	**0.00%**
Gross-up factor for tax purposes (LED only)	**0.00%**

	Non LED	LED	Non LED	LED
Gross Plant Value (YA)			$46,669	$8,840
Net Plant Value (YA)			$21,981	$8,604
a) Weighted Average Cost of Capital - Pretax				
ST Debt	0.21%	0.21%		$18.4
LT Debt	3.94%	3.94%		$339.3
Subtotal			*728*	*$357.8*
Preferred	0.22%	0.22%	$48.5	$18.6
Common	3.60%	3.60%	$767.7	$309.8
WACC - pretax cost	7.97%	7.97%	$1,543.8	$686.1
b) Additional income tax for common equity				
WACC - equity tax cost	1.62%	1.62%		$139.4
c) Large Corporations Tax				
WACC - Large Corporations Tax	0.03%	0.03%		$2.6
Subtotal			*$248.0*	*$142.0*
d) Grants in Lieu of Property Tax				
WACC - Grants in Lieu of Property Tax	1.09%		$213.3	$0.0
Subtotal Financing Expense	**10.71%**	**9.62%**	**$2,005.0**	**$828.1**
Depreciation Expense			**$2,401.1**	**$471.2**
Gross up for Tax Purposes			**N/A**	**$211.7**
Total Depreciation Expense Grossed Up for Tax Purposes			**N/A**	**$682.9**
CCA			**$0.0**	**-$219.2**
TOTAL CAPITAL COST EXPENSE			**$4,406.1**	**$1,291.8**

NON-CONFIDENTIAL

Request IR-41:

With respect to RB-01, Attachment 1:

(a) Please identify any capital additions for 2011 and 2012 which were in the 2011 ACE Plan (including those proposed to be submitted for approval at a later date) but are not included in this Attachment, and explain why they were not included.

(b) Please identify any capital additions for 2011 and 2012 which are in this Attachment but were not included in the 2011 ACE Plan and explain why they were not in the ACE Plan.

(c) If any of the projects that were identified in the ACE Plan for later submission to the Board (as identified in Schedule C of the Board's June 23, 2011 Decision re the 2011 ACE Plan) are included in Attachment 1 but are no longer expected to be submitted before the end of 2012, please identify those projects and provide the reason for the delay.

(d) If any projects are identified in c), please provide an update of RB-01 Attachment 1 and RB-02, Attachment 1.

Response IR-41:

(a-b) Please refer to NPB IR-11. Differences between the RB-01 attachment and the ACE Plan reflect the fact that these documents were prepared on two different timelines (the background for the Application was prepared before the ACE Plan was finalized).

(c-d) Projects included in the 2011 ACE Plan for later submission are still being finalized. It is expected that all projects identified in that list will be brought forward to the UARB

before the end of 2012 with the exception of Co-firing Biomass (CI 38947). This project is no longer being considered given the change in government policy. With only one change, NSPI has not prepared an updated version of the referenced attachments.

NON-CONFIDENTIAL

Request IR-42:

With respect to NSPI's response to NPB IR-27, page 2, Lines 24-27, which note that the treatment of DSM in the COSS is different from the 2009 GRA and DSM proceedings, what plans does NSPI have to address this?

Response IR-42:

NSPI is prepared to make the appropriate amendments to the cost of service study regarding this item.