



**RATE SCHEDULE E-47
CLASSIFIED SERVICE
DUSK TO DAWN LIGHTING SERVICE**

AVAILABILITY

This rate schedule is applicable to Customer's for Dusk to Dawn lighting.

DESCRIPTION

The E-47 rate is available to Customers with Dusk to Dawn lights. These lights are on the Customer's property or a private street and the Customer is charged a monthly fee for the light. This rate schedule is applicable to outdoor lighting which operates only from dusk to dawn and where service can be supplied from the existing secondary facilities of the Company.

TIME PERIOD

Dusk:

Time between sunset and full night when photocontrol senses the lack of sufficient sunlight and turns on the lights.

Dawn:

The time between full night and sunrise when a photocontrol senses sufficient sunlight to turn off lights.

CHARGES

The monthly bill will consist of the following charges, plus adjustments:

I. FIXTURES (Includes Mounting Arm, if Applicable)

	Lumen	Watts	kWh	CHARGES	
				Company Owned	Customer Owned
A. Acorn	3,835 LED	75	26	\$21.63	\$2.74
	4,796 LED	75	26	\$17.38	\$2.69
	5,003 LED	100	35	\$23.45	\$3.61
	5,904 LED	100	35	\$23.03	\$3.61
	6,000 IND	85	29	\$19.24	\$2.98
B. Architectural	6,200 IND	85	29	\$10.13	\$2.98
	8,400 IND	100	34	\$10.69	\$3.39
	10,200 IND	120	41	\$11.75	\$3.95
	13,000 IND	150	52	\$12.98	\$4.84
	20,500 IND	200	69	\$14.78	\$6.23
	22,500 IND	265	91	\$17.63	\$8.01
	3,300 LED	43	15	\$10.24	\$1.56



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				CHARGES	
B. Architectural	3,800 LED	32	12	\$7.73	\$1.25
	3,900 LED	32	12	\$9.96	\$1.28
	4,050 LED	63	22	\$18.63	\$2.33
	4,100 LED	45	16	\$10.34	\$1.66
	4,800 LED	41	15	\$8.27	\$1.54
	5,000 LED	41	15	\$9.61	\$1.55
	5,100 LED	60	21	\$10.18	\$2.12
	5,300 LED	67	24	\$10.47	\$2.41
	5,800 LED	94	32	\$17.81	\$3.23
	5,890 LED	89	31	\$20.56	\$3.20
	6,000 LED	62	22	\$18.63	\$2.33
	6,000 LED	67	24	\$19.89	\$2.53
	6,810 LED	101	35	\$18.89	\$3.56
	7,100 LED	62	22	\$19.70	\$2.34
	7,400 LED	127	44	\$20.42	\$4.20
	7,500 LED	73	26	\$20.08	\$2.72
	7,700 LED	86	30	\$18.41	\$3.08
	8,200 LED	88	31	\$10.45	\$3.07
	8,200 LED	95	33	\$11.87	\$3.27
	8,300 LED	72	25	\$17.93	\$2.60
	8,300 LED	106	37	\$12.45	\$3.65
	8,500 LED	88	31	\$11.69	\$3.09
	9,020 LED	139	48	\$22.94	\$4.81
	9,900 LED	130	45	\$13.82	\$4.42
	10,000 LED	93	32	\$21.43	\$3.30
	10,000 LED	113	39	\$13.26	\$3.86
	10,600 LED	126	44	\$22.56	\$4.43
	11,100 LED	108	38	\$12.76	\$3.75
	11,500 LED	108	38	\$13.16	\$3.76
	12,300 LED	203	70	\$25.48	\$6.31
12,900 LED	119	41	\$22.31	\$4.15	
13,260 LED	202	70	\$27.11	\$6.94	
14,000 LED	171	59	\$26.07	\$5.90	
15,000 LED	136	47	\$24.93	\$4.76	
15,400 LED	144	50	\$25.21	\$5.04	
18,300 LED	162	56	\$16.13	\$5.49	
19,200 LED	257	89	\$26.87	\$8.72	
20,000 LED	258	89	\$26.87	\$8.72	
20,300 LED	193	67	\$17.17	\$6.53	
21,000 LED	193	67	\$24.77	\$6.62	



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I. FIXTURES (Includes Mounting Arm, if Applicable (cont.))

				CHARGES			
				Company Owned	Customer Owned		
		Lumen	Watts	kWh			
C. Cobra		6,200 IND	75	26	\$10.54	\$2.74	
		6,400 IND	85	29	\$8.97	\$2.98	
		8,000 IND	88	30	\$10.47	\$3.06	
		8,400 IND	100	34	\$9.70	\$3.39	
		10,200 IND	120	41	\$10.44	\$3.95	
		13,000 IND	150	52	\$11.50	\$4.84	
		15,250 IND	200	69	\$13.86	\$6.23	
		22,500 IND	250	86	\$18.55	\$7.60	
	Gray/Bronze		3,500 IND	55	19	\$10.50	\$2.16
			6,000 LED	95	33	\$17.05	\$3.31
			8,700 LED	142	49	\$19.17	\$4.60
			9,600 LED	157	54	\$20.40	\$5.01
			11,600 B-LED	181	62	\$19.03	\$5.65
	Gray/Bronze		3,300 LED	43	15	\$9.00	\$1.84
	Gray/Bronze		5,300 LED	67	23	\$10.45	\$2.49
	Gray/Bronze		8,300 LED	106	37	\$13.55	\$3.63
	Gray/Bronze		10,500 LED	130	45	\$15.08	\$4.28
Gray/Bronze		20,000 LED	258	89	\$26.21	\$7.86	
D. Decorative Transit		5,300 LED	75	26	\$28.44	\$2.74	
		8,300 LED	100	34	\$30.45	\$3.39	
		8,147 LED	75	26	\$35.76	\$2.92	
		9,522 LED	100	35	\$36.14	\$3.77	
		10,500 LED	150	52	\$32.69	\$4.84	
		14,896 LED	150	52	\$39.98	\$5.41	
	Double		8,147 LED	75	26	\$64.74	\$3.12
	Double		9,522 LED	100	35	\$64.67	\$3.98
	Double		14,896 LED	100	52	\$70.67	\$5.59
	Copper	6,000 IND	85	29	\$18.87	\$2.98	
	Gray/Black	8,000 IND	88	30	\$14.86	\$3.06	
	Gray/Black	4,350 LED	86	30	\$13.48	\$3.06	



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I. FIXTURES (Includes Mounting Arm, if Applicable (cont.))

	Lumen	Watts	kWh	CHARGES	
				Company Owned	Customer Owned
E. Flood	14,470 LED	148	51	\$23.93	\$5.12
	16,000 LED	125	43	\$23.17	\$4.36
F. Pendant	8,678 LED	75	26	\$26.36	\$2.80
	13,964 LED	100	35	\$27.84	\$3.67
G. Post Top	4,350 LED	86	30	\$13.43	\$3.01
	6,400 LED	30	30	\$13.43	\$3.01
	6,600 LED	83	29	\$13.33	\$2.91
H. Roadway	3,300 LED	43	15	\$9.46	\$1.55
	3,800 LED	32	12	\$7.24	\$1.25
	3,900 LED	32	12	\$9.18	\$1.27
	4,100 LED	45	16	\$9.56	\$1.65
	4,800 LED	41	15	\$7.76	\$1.53
	5,000 LED	41	15	\$9.12	\$1.55
	5,100 LED	60	21	\$9.69	\$2.12
	5,300 LED	67	24	\$9.98	\$2.41
	8,200 LED	88	31	\$9.72	\$3.06
	8,200 LED	95	33	\$11.36	\$3.26
	8,300 LED	106	37	\$11.74	\$3.64
	8,500 LED	88	31	\$11.18	\$3.08
	9,900 LED	130	45	\$13.31	\$4.41
	10,000 LED	113	39	\$12.75	\$3.85
	11,100 LED	108	38	\$12.03	\$3.75
	11,500 LED	108	38	\$12.65	\$3.75
	18,300 LED	162	56	\$15.23	\$5.47
	19,200 LED	257	89	\$19.11	\$8.62
	20,000 LED	258	89	\$19.11	\$8.62
	20,300 LED	193	67	\$16.27	\$6.51
21,000 LED	193	67	\$17.01	\$6.52	



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I. FIXTURES (Includes Mounting Arm, if Applicable (cont.))

				CHARGES		
				Company Owned	Customer Owned	
		Lumen	Watts	kWh		
FROZEN		4,000 INC	295	103	\$10.54	\$5.89
		7,000 MV	175	73	\$13.65	\$7.83
		20,000 MV	400	150	\$26.84	\$15.21
FROZEN ACORN		9,500 HPS	100	41	\$29.14	\$9.93
		16,000 HPS	150	69	\$32.35	\$12.55
FROZEN ARCHITECTURAL		9,500 HPS	100	41	\$16.56	\$7.90
		16,000 HPS	150	69	\$19.34	\$10.58
		30,000 HPS	250	99	\$22.95	\$13.57
		50,000 HPS	400	153	\$28.32	\$19.53
		14,000 MH	175	72	\$23.17	\$12.70
		21,000 MH	250	101	\$26.31	\$15.66
		36,000 MH	400	159	\$32.89	\$21.54
		8,000 LPS	55	30	\$24.08	\$10.58
		13,500 LPS	90	50	\$28.39	\$12.76
		22,500 LPS	135	72	\$32.43	\$15.56
		33,000 LPS	180	90	\$39.01	\$18.33
		5,800 HPS	70	29	\$9.40	\$5.56
FROZEN COBRA ROADWAY		9,500 HPS	100	41	\$11.07	\$6.81
		16,000 HPS	150	69	\$13.86	\$9.50
		30,000 HPS	250	99	\$16.72	\$12.35
		50,000 HPS	400	153	\$22.69	\$17.63
		14,000 MH	175	72	\$16.12	\$10.99
		21,000 MH	250	101	\$18.84	\$13.67
		36,000 MH	400	159	\$24.81	\$18.99
		8,000 FL	100	38	\$18.53	\$5.43
FROZEN DECORATIVE TRANSIT		9,500 HPS	100	41	\$39.95	\$11.96
		16,000 HPS	150	69	\$39.72	\$6.80
		30,000 HPS	250	99	\$45.74	\$17.26
FROZEN FLOOD		30,000 HPS	250	99	\$22.20	\$13.79
		50,000 HPS	400	153	\$27.53	\$19.14
		21,000 MH	250	101	\$23.69	\$14.58
		36,000 MH	400	159	\$28.89	\$19.76
FROZEN POST TOP		8,000 FL	100	38	\$19.97	\$5.64
	Colonial	9,500 HPS	100	41	\$11.42	\$7.16
	Colonial	9,500 HPS	100	41	\$13.15	\$7.41
	Decorative	9,500 HPS	100	41	\$34.97	\$11.03
Brackets over 8 ft. and up to 16 ft. in length					\$1.85	--



- NOTES:
1. Company Owned fixtures are those fixtures that the Company installs, owns, and operates.
 2. Customer Owned fixtures are those fixtures where the Customer owns and maintains the lighting fixtures, and the Company approves the installation, operates the fixtures, and replaces Company standard lamps only. The Company may replace standard lamps if it has a maintenance agreement with the customer.
 3. Listed kWh reflect the assigned monthly energy usage for each type of fixture and are used to determine any applicable transmission, system benefit, distribution, energy, and adjustment charges.
 4. HPS = High Pressure Sodium
 5. MH = Metal Halide
 6. LPS = Low Pressure Sodium
 7. FL = Fluorescent
 8. INC = Incandescent. Incandescent lighting charges are applicable and available only to those Customers being served and those installations in service on April 21, 1983.
 9. MV = Mercury Vapor. Mercury Vapor lighting charges are applicable and available only to those Customers being served and those installation in service on June 1, 1987 in accordance with A.R.S. §49-1104(A).
 10. LED = Light Emitting Diode
 11. IND = Induction
 13. B-LED = Beta Light Emitting Diode



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II. POLES

			CHARGES	
			Height	Company Owned
A. Anchor Base Mounted	Round Steel	1 Simplex Adapter	12 ft.	\$13.11
			22 ft.	\$14.75
			25 ft.	\$15.97
			30 ft.	\$18.34
			32 ft.	\$19.27
	Round Steel	2 Simplex Adapters	12 ft.	\$13.98
			22 ft.	\$16.06
			25 ft.	\$16.75
			30 ft.	\$19.47
			32 ft.	\$20.77
	Square Steel	5"	13 ft.	\$15.03
			15 ft.	\$13.43
			23 ft.	\$15.93
			25 ft.	\$17.51
			28 ft.	\$19.44
			32 ft.	\$19.33
	Concrete		12 ft.	\$44.79
	Fiberglass		12 ft.	\$37.93
	Decorative Transit	4"	16 ft.	\$36.98
Decorative Transit	6"	30 ft.	\$71.39	
Hinged	Square	15 ft.	\$14.21	
	Round	19 ft.	\$12.85	
B. Anchor Base Mounted (Pedestal)	Round Steel	1 Simplex Adapter	12 ft.	\$12.61
			22 ft.	\$14.26
			25 ft.	\$15.46
			30 ft.	\$17.85
			32 ft.	\$18.75
	Round Steel	2 Simplex Adapters	12 ft.	\$13.47
			22 ft.	\$15.05
			25 ft.	\$16.24
			30 ft.	\$18.97
			32 ft.	\$20.26
		3 Bolt	32 ft.	\$23.28
	Square Steel	5"	13 ft.	\$14.54
			15 ft.	\$14.86
			23 ft.	\$15.43
			25 ft.	\$17.02
			28 ft.	\$18.91
			32 ft.	\$19.63



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II. POLES (cont)

		CHARGES		
		Height	Company Owned	
C. Direct Bury	Round Steel	19 ft.	\$19.84	
		30 ft.	\$15.49	
		38 ft.	\$18.90	
		Self-Support Stepped	40 ft.	\$23.28
			25 ft.	\$53.55
			32 ft.	\$56.40
	Square Steel	4"	49 ft.	\$70.00
			34 ft.	\$17.09
		5"	20 ft.	\$16.23
			30 ft.	\$16.92
		8"	38 ft.	\$18.36
			28 ft.	\$30.64
			32 ft.	\$32.03
	Decorative Transit	41 ft. 6 in.	\$22.05	
	Decorative Transit	47 ft.	\$27.47	
	Steel Distribution Pole (for lighting	35 ft.	\$25.36	
D. Post Top	Decorative Transit Anchor	16 ft.	\$37.77	
	Gray Steel/Fiberglass	23 ft.	\$13.10	
	Black Steel	23 ft.	\$14.44	
FROZEN	Wood Poles	30 ft.	\$9.64	
		35 ft.	\$9.64	
		40 ft.	\$13.72	

- NOTES:
1. All distribution lines required to serve dusk to dawn facilities are owned by the Company.
 2. Monthly charges for all new Company owned poles include up to 100 feet of overhead secondary wire, or up to 100 feet of underground secondary line if Customer provides earthwork and conduit (excluding the overhead to underground transition). Any additional wire required (over and above the first 100 feet provided) to install fixtures is subject to the additional monthly wire charges specified in Section IV.1 below.
 3. When adding lighting fixtures to an existing Company owned pole, any and all additional distribution wire required is subject to the additional monthly wire charges specified in Section IV.1 below.
 4. Any and all distribution wire required to serve lighting facilities placed on a Customer owned pole, whether new or existing, is subject to the additional monthly wire charges specified in Section IV.1 below.



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III. ANCHOR BASE

		CHARGES	
		Height	Company Owned
A. Flush		4 ft.	\$10.67
		6 ft.	\$12.73
B. Pedestal		8 ft.	\$14.59
	For 32' Round Steel Pole only	4 ft. 6"	\$10.12

IV. CHARGES FOR OPTIONAL OR ADDITIONAL EQUIPMENT

	CHARGE
	Company Owned
1. Each 100 feet of overhead secondary wire, or each 100 feet of underground secondary wire, if Customer provides earthwork and conduit.	\$3.77
2. Additional maintenance charge for HPS lamp and luminaire that is not accessible by bucket truck.	\$3.01
3. Additional maintenance charge for MH lamp and luminaire that is not accessible by bucket truck.	\$6.51

V. DETERMINATION OF CHARGES FOR NEW EQUIPMENT

Monthly charges for new lighting fixtures, poles and other equipment not included in Sections I, II, or III above will be determined by the Company using the following method:

Step 1	Determination of monthly charges for each charge type					Monthly Fixed Charge Rate
<u>Charge Type</u>	<u>Monthly Charge</u>		<u>Cost Inputs</u>		<u>PV Factor</u>	
1	Carrying cost (fixtures)	=	Equipment cost (installed)	x	NA	x 1.518%
2	Lighting O&M	=	O&M cost (lifecycle)	x	0.427	x 1.518%
3	Carrying cost (poles)	=	Equipment cost (installed)	x	NA	x 1.296%
<u>Charge Type</u>	<u>Monthly Charge</u>		<u>kWh Input</u>		<u>\$/kWh</u>	
4	Generation	=	kWh per month	x	0.06760	
5	T&D, RCS, system benefits	=	kWh per month	x	0.02738	



Step 2 Determination of Total Monthly Charge
The total monthly charge will be the summation of the charges for each applicable charge type.

<u>Equipment</u>	<u>Charge Type</u>
Fixtures - company owned	1,2,4,5
Fixtures - Customer owned	2,4,5
Poles - company owned	3

TRIP CHARGE

A \$100.00 trip charge per light will be charged when a Customer requests a disconnect and/or reconnect of service in order to accommodate the maintenance activities of the Customer or its designee(s) on their dusk to dawn equipment.

ADJUSTMENTS

The bill will include the following adjustments:

1. The Renewable Energy Adjustment Charge, Adjustment Schedule REAC-1.
2. The Power Supply Adjustment charges, Adjustment Schedule PSA-1.
3. The Transmission Cost Adjustment charge, Adjustment Schedule TCA-1.
4. The Environmental Improvement Surcharge, Adjustment Schedule EIS.
5. The Demand Side Management Adjustment charge, Adjustment Schedule DSMAC-1.
6. The Lost Fixed Cost Recovery Adjustment charge, Adjustment Schedule LFCR.
7. Direct Access Customers returning to Standard Offer service may be subject to a Returning Customer Direct Access Charge, Adjustment Schedule RCDAC-1.
8. Any applicable taxes and governmental fees that are assessed on APS's revenues, prices, sales volume, or generation volume.



SERVICE DETAILS

1. The 4,000 and 7,000 lumen lamps use an open glass diffuser. All units are controlled by a photoelectric switch.
2. The Customer is not authorized to make connections to the lighting circuits or to make attachments without prior notification to the Company. The Company may recalculate the rate or change the rate eligibility in such instances.
3. Should a Customer request relocation of a Dusk to Dawn lighting installation, the costs of such relocation will be paid by the Customer.
4. The Customer will be responsible for notifying the Company when the dusk to dawn facilities are not operating as intended. The Company will use reasonable efforts to complete normal maintenance (replacement of lamps, photocontrols or fixtures) within ten (10) working days from notification by Customer. If the maintenance requires cable replacement or repairs, the Company will use reasonable efforts to complete said repairs within twenty (20) working days.
5. The Customer's bill will not be reduced due to lamp, photocontrol or cable repair or replacement outages.
6. The Customer may cancel a lighting service agreement by payment of the bill including the applicable tax adjustment, multiplied by the number of remaining months of the initial agreement, or the calculated installation and removal costs for the extension, whichever is lower.
7. Lighting equipment which is not specified in this rate schedule will be billed at the rates corresponding to the most similar equipment, as determined by the Company.
8. Lighting Equipment and services with an initial Company cost exceeding \$25,000 will require a financial liability agreement between the Company and the Customer.
9. APS provides electric service under the Company's Service Schedules. These schedules provide details about how the Company serves its Customers, and they have provisions and charges that may affect the Customer's bill. In addition, service may be subject to special terms and conditions as provided for in a Customer contract or service agreement.

NON-STANDARD FACILITIES – CUSTOMER OWNED

When the Customer requests any non-standard Dusk to Dawn lighting facilities (non-standard being defined as any equipment not listed in the Company's Transmission and Distribution Construction Standards book), the Customer will own, operate and maintain all components to the system excluding the distribution facilities installed by the Company to serve the lighting



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system. Monthly bills rendered for non-standard facilities will consist of the following rates, plus any adjustments incorporated in this schedule. KWh will be determined by the Company, based on the rated wattage of the equipment and an estimated average hourly usage per month.

A.	Service Charge	\$3.61	per installed fixture per month
B.	Energy Charge	\$0.070000	per kWh per month

CONTRACT PERIOD

All Dusk to Dawn lighting installations will require a written agreement for service for a minimum of ten (10) years, or longer at Company's option.