

Schedules
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GRANITE STATE ELECTRIC COMPANY
d/b/a NATIONAL GRID
DE 10-____
Witness: Walter

SCHEDULE JEW – 1

Revised Tariff Pages

OUTDOOR LIGHTING SERVICE RATE M

AVAILABILITY

Public Lighting

Available for Street or Highways and areas within the public domain for customers designated as governmental entities, inclusive of the state, municipalities, or other public authorities.

Installations on limited access highways, tunnels, bridges and the access and egress ramps thereto are subject to the Special Rate Conditions of this tariff.

Private Lighting

Available to private customers for outdoor lighting of areas on private property where necessary fixtures can be supported on existing poles and where such service can be supplied from existing secondary distribution facilities.

In special circumstances outlined in the pole and accessory section below, the Company will install a wooden pole.

Lighting Services

Service under this rate is for full-night service street lighting whereby the luminaire operates for the entire night time period pursuant to the Hours of Operation provision below. In addition, customers may, at their option, take advantage of part-night service in which the luminaire operates for a portion of the night pursuant to the Hours of Operation provision below. Customers may select the part-night service option at the time of lighting installation or at any time during service. Any request to select the part-time night service option must be made in writing.

RATE

Luminaire Charge

<u>Size of Street Light Lumens</u>	<u>Wattage</u>	<u>Description</u>	<u>Annual Distribution Price Per Unit</u>
<u>Sodium Vapor</u>			
4,000	50	LUM HPS RWY 50W	\$50.58
9,600	100	LUM HPS RWY 100W	\$61.32
27,500	250	LUM HPS RWY 250W	\$107.67
50,000	400	LUM HPS RWY 400W	\$140.29
9,600(Post Top)	100	LUM HPS POST 100W	\$70.62
27,500(Flood)	250	LUM HPS FLD 250W	\$108.63
50,000(Flood)	400	LUM HPS FLD 400W	\$149.96

Incandescent

1,000	103	LUM INC RWY 103W	\$67.52
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Issued: _____

Issued by: /s/ Thomas B. King

Effective: January 1, 2011

Thomas B. King
Title: President

(Issued in Compliance with Order No. _____ in Docket DE 10-____ dated _____)

<u>Size of Street Light Lumens</u>	<u>Lamp Wattage</u>	<u>Description</u>	<u>Annual Distribution Price Per Unit</u>
<u>Mercury Vapor</u>			
4,000	100	LUM MV RWY 100W	\$48.87
8,000	175	LUM MV RWY 175W	\$59.42
22,000	400	LUM MV RWY 400W	\$112.38
63,000	1,000	LUM MV RWY 1000W	\$213.22
22,000(Flood)	400	LUM MV FLD 400W	\$124.28
63,000(Flood)	1,000	LUM MV FLD 1000W	\$214.61

No further installation or relocation of Incandescent and Mercury Vapor lights will be made after the effective date of this rate, unless specific permission is received from the Commission's Chief Engineer.

POLE AND ACCESSORY CHARGE

An additional annual charge enumerated below will be applied where the Company is requested to furnish a suitable wood pole for the sole purpose of supporting a luminaire. If at a future date the pole is used for any purpose approved by the Company in addition to supporting a street and/or floodlight luminaire, the pole charge will be terminated. This pole may not be more than one (1) span from the existing secondary service located along a roadway or thoroughfare, and must be reachable for mechanized equipment.

<u>Overhead Service</u>	<u>Description</u>	<u>Annual Price Per Unit</u>
Wood Poles	POLE – WOOD	\$59.60
<u>Underground Service</u>		
<u>Non-Metallic Standard</u>		
Fiber glass – Direct Embedded	POLE FIBER PT <25FT	\$61.72
Fiber glass with Foundation <25 ft.	POLE FIBER RWY <25FT	\$104.67
Fiber glass with Foundation >=25 ft.	POLE FIBER RWY=>25	\$174.87
<u>Metal Standard</u>		
Metal Poles - Direct Embedded	POLE METAL EMBEDDED	\$124.81
Metal Poles with Foundation	POLE METAL =>25FT	\$150.39

OTHER CHARGES

Pursuant to RSA 9-D:4, the Company provides a part-night service that, when requested by a customer, will require the replacement of the photoelectric control that will allow for the operation of the luminaire for a portion of the night. The Company shall assess the customer a Part Night Charge of \$150 for the installation of each photoelectric control that must be replaced in order for part-night service to be operational and for the removal of such photoelectric control upon the customer's request to return to full-night service. The Part Night Charge does not include the cost or fees associated with any work-zone protection, traffic control services and/or permits required to perform the customer requested change, all of which shall be the responsibility of the customer.

Issued: _____

Issued by: /s/ Thomas B. King

Effective: January 1, 2011

Thomas B. King
Title: President

(Issued in Compliance with Order No. _____ in Docket DE 10-____ dated _____)

TRANSMISSION SERVICE COST ADJUSTMENT

Transmission service is available to all retail Customers taking service under this rate. For those Customers, the Transmission Energy Charge shall be calculated in accordance with the Company's Transmission Service Cost Adjustment Provision as provided on Page 79 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

STRANDED COST ADJUSTMENT

All energy billed under this rate is subject to a Stranded Cost Energy Charge which shall be adjusted from time to time in accordance with the Company's Stranded Cost Adjustment Provision as provided on Page 80 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

DEFAULT SERVICE

Any Customer who is not purchasing generation service from another entity will receive and pay the Company for Default Service. Notice must be provided by the competitive supplier or the Customer in cases of Customer self-supply. Default Service prices shall be subject to adjustment in accordance with the Company's Default Service Adjustment Provision as provided on Page 87 of this Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

RELIABILITY ENHANCEMENT PROGRAM AND VEGETATION MANAGEMENT PLAN ADJUSTMENT

All energy billed under this rate is subject to a Reliability Enhancement Program and Vegetation Management Plan Adjustment Factor which shall be adjusted from time to time in accordance with the settlement agreement approved by the Commission in Docket No. DG 06-107.

RELIABILITY ENHANCEMENT PROGRAM CAPITAL INVESTMENT ALLOWANCE

Distribution base rates are subject to adjustment on an annual basis for a Reliability Enhancement Program Capital Investment Allowance pursuant to the settlement agreement approved by the Commission in Docket No. DG 06-107.

STORM RECOVERY ADJUSTMENT

All energy billed under this rate is subject to a Storm Recovery Adjustment Factor which shall be adjusted from time to time in accordance with the Company's Storm Recovery Adjustment Provision as provided on Page 114 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

Issued: July 21, 2010

Effective: July 1, 2010

Issued by: /s/ Thomas B. King

Thomas B. King
Title: President

(Issued in Compliance with Order No. 25,125 in Docket No. DE 10-096 dated June 30, 2010)

Default Service may be terminated by a Customer concurrent with the Customer's next scheduled meter read date provided that notice of initiation of generation service from another entity is received by the Company two (2) or more business days before the next scheduled meter read date. Notice must be provided by the competitive supplier or the Customer in cases of Customer self-supply. If the notice of initiation of generation service from another entity is received by the Company fewer than two (2) business days before the next scheduled meter read date, Default Service shall continue until the Customer's subsequent meter read date.

SYSTEM BENEFITS CHARGE ADJUSTMENT PROVISION

Customers taking service under this rate will be charged a System Benefits Charge as provided on Page 77 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

KILOWATT-HOURS PER LUMINAIRE

The energy charges for each luminaire will be determined by multiplying the current energy charges per kilowatt-hour by the average monthly kilowatt-hours shown in the following table:

	<u>Luminaire Description</u>	<u>Full-Night Service kWh per Luminaire</u>		<u>Part-Night Service kWh per Luminaire</u>	
		<u>Monthly</u>	<u>Annual</u>	<u>Monthly</u>	<u>Annual</u>
1,000	Lumen Incandescent	37	444	22	264
4,000	Lumen Mercury Vapor	47	564	28	336
8,000	" "	76	912	45	540
22,000	" "	158	1,896	93	1,116
63,000	" "	381	4,572	223	2,676
22,000	" " (Flood)	158	1,896	93	1,116
63,000	" " (Flood)	381	4,572	223	2,676
4,000	Lumen Sodium Vapor	21	252	12	144
9,600	" "	41	492	24	288
27,500	" "	107	1,284	63	756
50,000	" "	164	1,968	96	1,152
9,600	" " (Post Top)	41	492	24	288
27,500	" " (Flood)	107	1,284	63	756
50,000	" " (Flood)	162	1,944	95	1,140

Issued: _____

Issued by: /s/ Thomas B. King

Effective: January 1, 2011

Thomas B. King
Title: President

(Issued in Compliance with No. _____ in Docket No. DE 10-____ dated _____)

SPECIAL RATE CONDITIONS

Charges for the operation of outdoor lights may be increased, if in the Company's opinion, lights are to be installed in locations or under conditions such that estimated income will be insufficient to justify the estimated cost of construction.

BILLINGS

One-twelfth of the annual price of luminaires, poles and accessories plus energy charges, including adjustments, will be billed each and every month beginning with the month following the month in which service is rendered.

The monthly bill will be based on the following:

- (1) Luminaire Charges and Pole and Accessory Charges will be based on the annual rates above divided by 365 days to arrive at a daily rate and multiplied by the actual number of days in the billing period as measured from the date of the prior bill to the current bill date.
- (2) Charges per kWh will be based on the annual kWh per luminaire above. The monthly kWh amount shall be determined by allocating the number of annual operating hours for streetlights among the months. The sum of the monthly kWh for each light equals the annual kWh in this tariff. A daily kWh amount is determined from the monthly amount by dividing monthly kWh by the number of days in a month. The daily kWh amount is multiplied by the actual number of days for each calendar month during the billing period as measured from the date of the prior bill to the current bill date and then multiplied by the charge per kWh.

HOURS OF OPERATION

1) Full-Night Service: All streetlights will be operated every night from approximately one-half hour after sunset until approximately one-half hour before sunrise, a total of approximately 4,175 hours each year.

2) Part-Night Service: All streetlights will be operated every night from approximately one-half hour after sunset then turning off at a time equal to one-half of the previous standard service period and, as necessary, from five and one-half hours later until approximately one-half hour before sunrise, a total of no greater than 2,448 hours each year.

FAILURE OF LIGHTS TO BURN

Should any light fail to burn for the full period provided above, and failure is due to some cause of condition which might reasonably have been prevented by the Company, a deduction will be made from the luminaire price of such light, upon presentation of a claim from the Customer. The deduction shall be equivalent to such part of the annual price thereof as is equal to the ratio that the time of any outage bears to the annual burning time of such light or lights. The provisions of this paragraph do not apply when failure to burn is due to an act of God, or an act or order of any Public Authority or accidental or malicious breakage, provided, however, the necessary repairs are made with reasonable dispatch upon notification by the Customer.

EXCESSIVE DAMAGE

Excessive damage to poles, lamps, fixtures, or conductors due to wanton or malicious acts will be charged to the Customer at the actual cost of labor and material required for repair or replace the unit. "Excessive damage" is defined as that which occurs more than once a year. Notification of excessive damage shall be made to the Customer by the Company prior to billing for repairs.

Issued: _____

Issued by: /s/Thomas B. King
Thomas B. King

Effective: January 1, 2011

Title: President

(Issued in Compliance with Order No. _____ in Docket DE 10-____ dated _____)

TERM OF SERVICE

The customer shall receive and pay for outdoor lighting service for an initial term of five years from the date of installation. Unless notice of termination is given, service shall be extended thereafter for terms of one year. Either the customer or the Company may terminate outdoor lighting service by giving the other written notice at least six months before expiration of a term.

DISCONTINUANCE OF LIGHTS

Upon expiration of the initial five year term, the Customer may discontinue lights by written notice to the Company. Such discontinuance is contingent upon the customer paying the undepreciated value of the light installation plus a removal charge of \$50 per light. Removal of such lights will be completed in a reasonable period as agreed upon.

CONVERSION OF EXISTING INCANDESCENT AND MERCURY VAPOR LIGHTS TO SODIUM VAPOR

A. Public Street Lights

- (1) Incandescent lights - To any municipality or other governmental agency so requesting, the Company will initiate a conversion schedule for the replacement of incandescent lights with an appropriate sodium vapor light. The conversion will be completed in a period as agreed upon.
- (2) Mercury vapor lights - To any municipality or other governmental agency so requesting, the Company will initiate a conversion schedule for the replacement of mercury vapor lights with an appropriate sodium vapor light upon payment of the undepreciated value of the existing light. This payment may be spread equally over the following twelve month period. The conversion will be completed in a period as agreed upon.

B. Private, Street, or Outdoor Lights

Conversion of lights will be made as requested by the Customer and as agreed to by the Company, upon payment of the undepreciated value of the existing light and a \$50 per light conversion charge.

ENERGY EMERGENCY SERVICE

In the event of a generally recognized national and/or regional energy shortage or emergency, annual outdoor lighting may be disconnected upon written request of the Customer. In this event, a monthly charge will be billed at the rate of 80% of the normal charges for the duration of time the lighting service is disconnected.

TERMS AND CONDITIONS

The Company's Terms and Conditions in effect from time to time, where not inconsistent with any specific provisions hereof, are a part of this rate.

Issued: July 16, 1998

Issued by: /s/Lawrence J. Reilly

Effective: July 1, 1998 (Applied to
usage on and after July 1, 1998)

Lawrence J. Reilly
Title: President

(Issued in Compliance with Order No. 22,981 in Docket DR 98-012 dated July 15, 1998)

OUTDOOR LIGHTING SERVICE RATE M

AVAILABILITY

Public Lighting

Available for Street or Highways and areas within the public domain for customers designated as governmental entities, inclusive of the state, municipalities, or other public authorities lighting to any town, city or fire district.

Installations on limited access highways, tunnels, bridges and the access and egress ramps thereto are subject to the Special Rate Conditions of this tariff.

Private Lighting

Available to private customers for outdoor lighting of areas on private property where necessary fixtures can be supported on existing poles and where such service can be supplied from existing secondary distribution facilities.

In special circumstances outlined in the pole and accessory section below, the Company will install a wooden pole.

Lighting Services

Service under this rate is for full-night service street lighting whereby the luminaire operates for the entire night time period pursuant to the Hours of Operation provision below. In addition, customers may, at their option, take advantage of part-night service in which the luminaire operates for a portion of the night pursuant to the Hours of Operation provision below. Customers may select the part-night service option at the time of lighting installation or at any time during service. Any request to select the part-time night service option must be made in writing.

RATE

Luminaire Charge

Size of Street Light Lumens	Wattage	Lamp <u>Description</u> Code	— Annual Distribution Price Per Unit
<u>Sodium Vapor</u>			
4,000	50	<u>LUM HPS RWY 50W</u>	\$50.58
9,600	100	<u>LUM HPS RWY 100W</u> 72	\$61.32
27,500	250	<u>LUM HPS RWY 250W</u> 74	\$107.67
50,000	400	<u>LUM HPS RWY 400W</u> 75	\$140.29
9,600(Post Top)	100	<u>LUM HPS POST 100W</u> 79	\$70.62
27,500(Flood)	250	<u>LUM HPS FLD 250W</u> 77	\$108.63
50,000(Flood)	400	<u>LUM HPS FLD 400W</u> 78	\$149.96

Incandescent

1,000	103	<u>LUM INC RWY 103W</u> 49	\$67.52
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Issued: July 21, 2010
King

Issued by: /s/ Thomas B.

Effective: January 1, 2011July 1, 2010
President

Thomas B. King
Title:

| (Issued in Compliance with Order No. ~~25,126~~ in Docket DE 10-~~140~~ dated ~~June 30, 2010~~)

<u>Size of Street Light Lumens</u>	<u>Lamp Wattage</u>	<u>Description</u> Code	<u>Annual Distribution Price Per Unit</u>
<u>Mercury Vapor</u>			
4,000	100	<u>LUM MV RWY 100W</u>	03 \$48.87
8,000	175	<u>LUM MV RWY 175W</u>	04 \$59.42
22,000	400	<u>LUM MV RWY 400W</u>	05 \$112.38
63,000	1,000	<u>LUM MV RWY 1000W</u>	06 \$213.22
22,000(Flood)	400	<u>LUM MV FLD 400W</u>	23 \$124.28
63,000(Flood)	1,000	<u>LUM MV FLD 1000W</u>	24 \$214.61

No further installation or relocation of Incandescent and Mercury Vapor lights will be made after the effective date of this rate, unless specific permission is received from the Commission's Chief Engineer.

POLE AND ACCESSORY CHARGE

An additional annual charge enumerated below will be applied where the Company is requested to furnish a suitable wood pole for the sole purpose of supporting a luminaire. If at a future date the pole is used for any purpose approved by the Company in addition to supporting a street and/or floodlight luminaire, the pole charge will be terminated. This pole may not be more than one (1) span from the existing secondary service located along a roadway or thoroughfare, and must be reachable for mechanized equipment.

<u>Overhead Service</u>	<u>Description</u> Code	<u>Annual Price Per Unit</u>
Wood Poles	<u>POLE – WOOD</u> P	\$59.60
<u>Underground Service</u>		
<u>Non-Metallic Standard</u>		
Fiber glass – Direct Embedded w/o Base	<u>POLE FIBER PT <25FT</u> R	\$61.72
Fiber glass <u>with Foundation <25 ft. w/ Base</u> <25 ft.	<u>POLE FIBER RWY <25FT</u> G	\$104.67
Fiber glass <u>with Foundation w/ Base</u> >=25 ft.	<u>POLE FIBER RWY =>25 FT</u> D	\$174.87
<u>Metal Standard</u>		
Metal Poles - Direct Embedded w/o Base	<u>POLE METAL EMBEDDED</u> F	\$124.81
Metal Poles <u>with Foundation w/ Base</u>	<u>POLE METAL =>25FT</u> T	\$150.39

OTHER CHARGES

Pursuant to RSA 9-D:4, the Company provides a part-night service that, when requested by a customer, will require the replacement of the photoelectric control that will allow for the operation of the luminaire for a portion of the night. The Company shall assess the customer a Part Night Charge of \$150 for the installation of each photoelectric control that must be replaced in order for part-night service to be operational and for the removal of such photoelectric control upon the customer's request to return to full-night service. The Part Night Charge does not include the cost or fees associated with any work-zone protection, traffic control services and/or permits required to perform the customer requested change, all of which shall be the responsibility of the customer.

| Issued: ~~July 21, 2010~~ Issued by: /s/ Thomas B.
King
Thomas B. King
| Effective: ~~January 1, 2011~~~~July 1, 2010~~ Title:
President
| (Issued in Compliance with Order No. ~~25,126~~ in Docket DE 10-~~140~~- dated ~~June 30, 2010~~)

TRANSMISSION SERVICE COST ADJUSTMENT

Transmission service is available to all retail Customers taking service under this rate. For those Customers, the Transmission Energy Charge shall be calculated in accordance with the Company's Transmission Service Cost Adjustment Provision as provided on Page 79 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

STRANDED COST ADJUSTMENT

All energy billed under this rate is subject to a Stranded Cost Energy Charge which shall be adjusted from time to time in accordance with the Company's Stranded Cost Adjustment Provision as provided on Page 80 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

DEFAULT SERVICE

Any Customer who is not purchasing generation service from another entity will receive and pay the Company for Default Service. Notice must be provided by the competitive supplier or the Customer in cases of Customer self-supply. Default Service prices shall be subject to adjustment in accordance with the Company's Default Service Adjustment Provision as provided on Page 87 of this Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

RELIABILITY ENHANCEMENT PROGRAM AND VEGETATION MANAGEMENT PLAN ADJUSTMENT

All energy billed under this rate is subject to a Reliability Enhancement Program and Vegetation Management Plan Adjustment Factor which shall be adjusted from time to time in accordance with the settlement agreement approved by the Commission in Docket No. DG 06-107.

RELIABILITY ENHANCEMENT PROGRAM CAPITAL INVESTMENT ALLOWANCE

Distribution base rates are subject to adjustment on an annual basis for a Reliability Enhancement Program Capital Investment Allowance pursuant to the settlement agreement approved by the Commission in Docket No. DG 06-107.

STORM RECOVERY ADJUSTMENT

All energy billed under this rate is subject to a Storm Recovery Adjustment Factor which shall be adjusted from time to time in accordance with the Company's Storm Recovery Adjustment Provision as provided on Page 114 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

Issued: July 21, 2010

Issued by: /s/ Thomas B. King

Effective: July 1, 2010

Thomas B. King
Title: President

(Issued in Compliance with Order No. 25,125 in Docket No. DE 10-096 dated June 30, 2010)

Default Service may be terminated by a Customer concurrent with the Customer's next scheduled meter read date provided that notice of initiation of generation service from another entity is received by the Company two (2) or more business days before the next scheduled meter read date. Notice must be provided by the competitive supplier or the Customer in cases of Customer self-supply. If the notice of initiation of generation service from another entity is received by the Company fewer than two (2) business days before the next scheduled meter read date, Default Service shall continue until the Customer's subsequent meter read date.

SYSTEM BENEFITS CHARGE ADJUSTMENT PROVISION

Customers taking service under this rate will be charged a System Benefits Charge as provided on Page 77 of the Tariff of which this rate is a part. A summary of energy charges in effect, with all adjustments, is provided on Page 84 of this Tariff.

KILOWATT-HOURS PER LUMINAIRE

The energy charges for each luminaire will be determined by multiplying the current energy charges per kilowatt-hour by the average monthly kilowatt-hours shown in the following table:

		<u>Full-Night Service kWh per Luminaire</u>		<u>Part-Night Service kWh per Luminaire</u>	
		<u>Monthly kWh</u>		<u>Annual kWh</u>	
<u>Luminaire Description</u>	<u>Code</u>	<u>Monthly</u>	<u>Per Luminaire</u>	<u>Annual</u>	<u>Monthly</u>
<u>Annual</u>	<u>Per Luminaire</u>				
1,000 Lumen Incandescent	10	37	444	22	264
4,000 Lumen Mercury Vapor	3	47	564	28	336
8,000 " "	4	76	912	45	540
22,000 " "	5	158	1,896	93	1,116
63,000 " "	6	381	4,572	223	2,676
22,000 " " (Flood)	23	158	1,896	93	1,116
63,000 " " (Flood)	24	381	4,572	223	2,676
4,000 Lumen Sodium Vapor	70	21	252	12	144
9,600 " "	72	41	492	24	288
27,500 " "	74	107	1,284	63	756
50,000 " "	75	164	1,968	96	1,152
9,600 " " (Post Top)	79	41	492	24	288
27,500 " " (Flood)	77	107	1,284	63	756
50,000 " " (Flood)	78	162	1,944	95	1,140

Issued: March 29, 2006

Issued by: /s/ Thomas B. King Cheryl A. LaFleur

Effective: January 1, 2011 May 1, 2006

Title: President

SPECIAL RATE CONDITIONS

Charges for the operation of outdoor lights may be increased, if in the Company's opinion, lights are to be installed in locations or under conditions such that estimated income will be insufficient to justify the estimated cost of construction.

BILLINGS

One-twelfth of the annual price of luminaires, poles and accessories plus energy charges, including adjustments, will be billed each and every month beginning with the month following the month in which service is rendered.

The monthly bill will be based on the following:

- (1) Luminaire Charges and Pole and Accessory Charges will be based on the annual rates above divided by 365 days to arrive at a daily rate and multiplied by the actual number of days in the billing period as measured from the date of the prior bill to the current bill date.
- (2) Charges per kWh will be based on the annual kWh per luminaire above. The monthly kWh amount shall be determined by allocating the number of annual operating hours for streetlights among the months. The sum of the monthly kWh for each light equals the annual kWh in this tariff. A daily kWh amount is determined from the monthly amount by dividing monthly kWh by the number of days in a month. The daily kWh amount is multiplied by the actual number of days for each calendar month during the billing period as measured from the date of the prior bill to the current bill date and then multiplied by the charge per kWh.

HOURS OF OPERATION

1) Full-Night Service: All streetlights will be operated every night from approximately one-half hour after sunset until approximately one-half hour before sunrise, a total of approximately 4,175 hours each year.

2) Part-Night Service: All streetlights will be operated every night from approximately one-half hour after sunset then turning off at a time equal to one-half of the previous standard service period and, as necessary, from five and one-half hours later until approximately one-half hour before sunrise, a total of no greater than 2,448 hours each year.

FAILURE OF LIGHTS TO BURN

Should any light fail to burn for the full period provided above, and failure is due to some cause of condition which might reasonably have been prevented by the Company, a deduction will be made from the luminaire price of such light, upon presentation of a claim from the Customer. The deduction shall be equivalent to such part of the annual price thereof as is equal to the ratio that the time of any outage bears to the annual burning time of such light or lights. The provisions of this paragraph do not apply when failure to burn is due to an act of God, or an act or order of any Public Authority or accidental or malicious breakage, provided, however, the necessary repairs are made with reasonable dispatch upon notification by the Customer.

EXCESSIVE DAMAGE

Excessive damage to poles, lamps, fixtures, or conductors due to wanton or malicious acts will be charged to the Customer at the actual cost of labor and material required for repair or replace the unit. "Excessive damage" is defined as that which occurs more than once a year. Notification of excessive damage shall be made to the Customer by the Company prior to billing for repairs.

Issued: July 16, 1998
Effective: January 1, 2011 ~~July 1, 1998 (Applied to usage on and after July 1, 1998)~~

Issued by: /s/Thomas B. King ~~Lawrence J. Reilly~~
Title: President

TERM OF SERVICE

The customer shall receive and pay for outdoor lighting service for an initial term of five years from the date of installation. Unless notice of termination is given, service shall be extended thereafter for terms of one year. Either the customer or the Company may terminate outdoor lighting service by giving the other written notice at least six months before expiration of a term.

DISCONTINUANCE OF LIGHTS

Upon expiration of the initial five year term, the Customer may discontinue lights by written notice to the Company. Such discontinuance is contingent upon the customer paying the undepreciated value of the light installation plus a removal charge of \$50 per light. Removal of such lights will be completed in a reasonable period as agreed upon.

CONVERSION OF EXISTING INCANDESCENT AND MERCURY VAPOR LIGHTS TO SODIUM VAPOR

- A. Public Street Lights
- (1) Incandescent lights - To any municipality or other governmental agency so requesting, the Company will initiate a conversion schedule for the replacement of incandescent lights with an appropriate sodium vapor light. The conversion will be completed in a period as agreed upon.
 - (2) Mercury vapor lights - To any municipality or other governmental agency so requesting, the Company will initiate a conversion schedule for the replacement of mercury vapor lights with an appropriate sodium vapor light upon payment of the undepreciated value of the existing light. This payment may be spread equally over the following twelve month period. The conversion will be completed in a period as agreed upon.
- B. Private, Street, or Outdoor Lights
- Conversion of lights will be made as requested by the Customer and as agreed to by the Company, upon payment of the undepreciated value of the existing light and a \$50 per light conversion charge.

ENERGY EMERGENCY SERVICE

In the event of a generally recognized national and/or regional energy shortage or emergency, annual outdoor lighting may be disconnected upon written request of the Customer. In this event, a monthly charge will be billed at the rate of 80% of the normal charges for the duration of time the lighting service is disconnected.

TERMS AND CONDITIONS

The Company's Terms and Conditions in effect from time to time, where not inconsistent with any specific provisions hereof, are a part of this rate.

Issued: July 16, 1998

Issued by: /s/Lawrence J. Reilly

Effective: July 1, 1998 (Applied to
usage on and after July 1, 1998)

Lawrence J. Reilly
Title: President

(Issued in Compliance with Order No. 22,981 in Docket DR 98-012 dated July 15, 1998)

GRANITE STATE ELECTRIC COMPANY
d/b/a NATIONAL GRID
DE 10-____
Witness: Walter

SCHEDULE JEW – 2

Part Night Hours of Operation Table

Part-Night Hours of Operation - Rate Schedule M																
(Off at Midnight/On at 5:30 AM)																
Manchester NH																
Day of Year	Civil Twilight Starts	Sunrise	Sunrise Conversion (Decimal)	Hours After Midnight Turn-On (Decimal)	Hours/Minutes After 5:30 AM Turn-On Point (Decimal)	Sunset	Sunset Conversion (Decimal)	Civil Twilight Ends	Midnight Turn Off Point (Decimal)	Time of Midnight	Day Time Hours SR/SS (Decimal)	Night Time Hours SS/SR (Decimal)	21 Minutes Before Sunrise/ After Sunset (Decimal)	Total Burn Time Dusk to Dawn Per Day (Decimal)	Midnight Tracker Hours of Burn Time (Decimal)	Midnight Tracker Hours of Burn Time Savings (Decimal)
1-Jan	6:45	7:17	7.28	5.50	1.78	16:22	16.37	16:54	23:83	23:49	9.08	14.92	0.36	14.56	9.24	5.32
2-Jan	6:45	7:17	7.28	5.50	1.78	16:23	16.38	16:55	23:83	23:50	9.10	14.90	0.36	14.54	9.23	5.31
3-Jan	6:45	7:17	7.28	5.50	1.78	16:24	16.40	16:56	23:84	23:50	9.12	14.88	0.36	14.52	9.23	5.30
4-Jan	6:45	7:17	7.28	5.50	1.78	16:25	16.42	16:57	23:85	23:51	9.13	14.87	0.36	14.51	9.22	5.29
5-Jan	6:45	7:17	7.28	5.50	1.78	16:26	16.43	16:58	23:86	23:51	9.15	14.85	0.36	14.49	9.21	5.28
6-Jan	6:45	7:17	7.28	5.50	1.78	16:27	16.45	16:59	23:87	23:52	9.17	14.83	0.36	14.47	9.20	5.27
7-Jan	6:45	7:17	7.28	5.50	1.78	16:28	16.47	17:00	23:88	23:52	9.18	14.82	0.36	14.46	9.19	5.27
8-Jan	6:45	7:17	7.28	5.50	1.78	16:29	16.48	17:01	23:88	23:53	9.20	14.80	0.36	14.44	9.18	5.26
9-Jan	6:45	7:16	7.27	5.50	1.77	16:30	16.50	17:02	23:88	23:53	9.23	14.77	0.36	14.41	9.15	5.26
10-Jan	6:44	7:16	7.27	5.50	1.77	16:31	16.52	17:03	23:89	23:53	9.25	14.75	0.36	14.39	9.14	5.25
11-Jan	6:44	7:16	7.27	5.50	1.77	16:32	16.53	17:04	23:90	23:54	9.27	14.73	0.36	14.37	9.13	5.24
12-Jan	6:44	7:16	7.27	5.50	1.77	16:33	16.55	17:05	23:91	23:54	9.28	14.72	0.36	14.36	9.13	5.23
13-Jan	6:44	7:15	7.25	5.50	1.75	16:34	16.57	17:06	23:91	23:54	9.32	14.68	0.36	14.32	9.09	5.23
14-Jan	6:43	7:15	7.25	5.50	1.75	16:35	16.58	17:07	23:92	23:55	9.33	14.67	0.36	14.31	9.08	5.22
15-Jan	6:43	7:14	7.23	5.50	1.73	16:37	16.62	17:08	23:93	23:55	9.38	14.62	0.36	14.26	9.04	5.22
16-Jan	6:42	7:14	7.23	5.50	1.73	16:38	16.63	17:09	23:93	23:56	9.40	14.60	0.36	14.24	9.03	5.21
17-Jan	6:42	7:13	7.22	5.50	1.72	16:39	16.65	17:10	23:93	23:56	9.43	14.57	0.36	14.21	9.00	5.21
18-Jan	6:42	7:13	7.22	5.50	1.72	16:40	16.67	17:11	23:94	23:56	9.45	14.55	0.36	14.19	8.99	5.20
19-Jan	6:41	7:12	7.20	5.50	1.70	16:42	16.70	17:13	23:95	23:57	9.50	14.50	0.36	14.14	8.95	5.19
20-Jan	6:40	7:11	7.18	5.50	1.68	16:43	16.72	17:14	23:95	23:57	9.53	14.47	0.36	14.11	8.92	5.19
21-Jan	6:40	7:11	7.18	5.50	1.68	16:44	16.73	17:15	23:96	23:57	9.55	14.45	0.36	14.09	8.91	5.18
22-Jan	6:39	7:10	7.17	5.50	1.67	16:45	16.75	17:16	23:96	23:57	9.58	14.42	0.36	14.06	8.88	5.18
23-Jan	6:39	7:09	7.15	5.50	1.65	16:47	16.78	17:17	23:97	23:58	9.63	14.37	0.36	14.01	8.83	5.17
24-Jan	6:38	7:09	7.15	5.50	1.65	16:48	16.80	17:19	23:98	23:58	9.65	14.35	0.36	13.99	8.83	5.17
25-Jan	6:37	7:08	7.13	5.50	1.63	16:49	16.82	17:20	23:98	23:58	9.68	14.32	0.36	13.96	8.79	5.17
26-Jan	6:36	7:07	7.12	5.50	1.62	16:50	16.83	17:21	23:98	23:58	9.72	14.28	0.36	13.92	8.76	5.17
27-Jan	6:35	7:06	7.10	5.50	1.60	16:52	16.87	17:22	23:98	23:59	9.77	14.23	0.36	13.87	8.72	5.16
28-Jan	6:35	7:05	7.08	5.50	1.58	16:53	16.88	17:23	23:98	23:59	9.80	14.20	0.36	13.84	8.68	5.16
29-Jan	6:34	7:04	7.07	5.50	1.57	16:54	16.90	17:25	23:98	23:59	9.83	14.17	0.36	13.81	8.65	5.16
30-Jan	6:33	7:03	7.05	5.50	1.55	16:56	16.93	17:26	23:99	23:59	9.88	14.12	0.36	13.76	8.61	5.15
31-Jan	6:32	7:02	7.03	5.50	1.53	16:57	16.95	17:27	23:99	23:59	9.92	14.08	0.36	13.72	8.58	5.15
1-Feb	6:31	7:01	7.02	5.50	1.52	16:58	16.97	17:28	23:99	23:59	9.95	14.05	0.36	13.69	8.54	5.15
2-Feb	6:30	7:00	7.00	5.50	1.50	17:00	17.00	17:30	24:00	0:00	10.00	14.00	0.36	13.64	8.50	5.14
3-Feb	6:29	6:59	6.98	5.50	1.48	17:01	17.02	17:31	24:00	0:00	10.03	13.97	0.36	13.61	8.47	5.14
4-Feb	6:28	6:58	6.97	5.50	1.47	17:02	17.03	17:32	24:00	0:00	10.07	13.93	0.36	13.57	8.43	5.14
5-Feb	6:27	6:57	6.95	5.50	1.45	17:04	17.07	17:34	24:01	0:00	10.12	13.88	0.36	13.52	8.39	5.13
6-Feb	6:26	6:55	6.92	5.50	1.42	17:05	17.08	17:35	24:00	0:00	10.17	13.83	0.36	13.47	8.33	5.14
7-Feb	6:25	6:54	6.90	5.50	1.40	17:06	17.10	17:36	24:00	0:00	10.20	13.80	0.36	13.44	8.30	5.14
8-Feb	6:23	6:53	6.88	5.50	1.38	17:08	17.13	17:37	24:01	0:00	10.25	13.75	0.36	13.39	8.26	5.13
9-Feb	6:22	6:52	6.87	5.50	1.37	17:09	17.15	17:39	24:01	0:00	10.28	13.72	0.36	13.36	8.23	5.13
10-Feb	6:21	6:50	6.83	5.50	1.33	17:10	17.17	17:40	24:00	0:00	10.33	13.67	0.36	13.31	8.17	5.14
11-Feb	6:20	6:49	6.82	5.50	1.32	17:12	17.20	17:41	24:01	0:00	10.38	13.62	0.36	13.26	8.13	5.13
12-Feb	6:18	6:48	6.80	5.50	1.30	17:13	17.22	17:42	24:01	0:00	10.42	13.58	0.36	13.22	8.09	5.13
13-Feb	6:17	6:46	6.77	5.50	1.27	17:14	17.23	17:44	24:00	0:00	10.47	13.53	0.36	13.17	8.03	5.14
14-Feb	6:16	6:45	6.75	5.50	1.25	17:16	17.27	17:45	24:01	0:00	10.52	13.48	0.36	13.12	7.99	5.13
15-Feb	6:15	6:44	6.73	5.50	1.23	17:17	17.28	17:46	24:01	0:00	10.55	13.45	0.36	13.09	7.96	5.13
16-Feb	6:13	6:42	6.70	5.50	1.20	17:18	17.30	17:47	24:00	0:00	10.60	13.40	0.36	13.04	7.90	5.14
17-Feb	6:12	6:41	6.68	5.50	1.18	17:20	17.33	17:49	24:01	0:00	10.65	13.35	0.36	12.99	7.86	5.13
18-Feb	6:10	6:39	6.65	5.50	1.15	17:21	17.35	17:50	24:00	0:00	10.70	13.30	0.36	12.94	7.80	5.14
19-Feb	6:09	6:38	6.63	5.50	1.13	17:22	17.37	17:51	24:00	0:00	10.73	13.27	0.36	12.91	7.77	5.14
20-Feb	6:08	6:36	6.60	5.50	1.10	17:23	17.38	17:52	23:99	23:59	10.78	13.22	0.36	12.86	7.71	5.15
21-Feb	6:06	6:35	6.58	5.50	1.08	17:25	17.42	17:54	24:00	0:00	10.83	13.17	0.36	12.81	7.67	5.14
22-Feb	6:05	6:33	6.55	5.50	1.05	17:26	17.43	17:55	23:99	23:59	10.88	13.12	0.36	12.76	7.61	5.15
23-Feb	6:03	6:32	6.53	5.50	1.03	17:27	17.45	17:56	23:99	23:59	10.92	13.08	0.36	12.72	7.58	5.15
24-Feb	6:02	6:30	6.50	5.50	1.00	17:29	17.48	17:57	23:99	23:59	10.98	13.02	0.36	12.66	7.51	5.15
25-Feb	6:00	6:29	6.48	5.50	0.98	17:30	17.50	17:58	23:99	23:59	11.02	12.98	0.36	12.62	7.48	5.15
26-Feb	5:58	6:27	6.45	5.50	0.95	17:31	17.52	18:00	23:98	23:59	11.07	12.93	0.36	12.57	7.42	5.16
27-Feb	5:57	6:25	6.42	5.50	0.92	17:32	17.53	18:01	23:98	23:58	11.12	12.88	0.36	12.52	7.36	5.17
28-Feb	5:55	6:24	6.40	5.50	0.90	17:34	17.57	18:02	23:98	23:59	11.17	12.83	0.36	12.47	7.32	5.16
1-Mar	5:54	6:22	6.37	5.50	0.87	17:35	17.58	18:03	23:98	23:58	11.22	12.78	0.36	12.42	7.26	5.17
2-Mar	5:52	6:21	6.35	5.50	0.85	17:36	17.60	18:05	23:98	23:58	11.25	12.75	0.36	12.39	7.23	5.17
3-Mar	5:51	6:19	6.32	5.50	0.82	17:37	17.62	18:06	23:97	23:58	11.30	12.70	0.36	12.34	7.17	5.17
4-Mar	5:49	6:17</														

Part-Night Hours of Operation - Rate Schedule M																
(Off at Midnight/On at 5:30 AM)																
Manchester NH																
Day of Year	Civil Twilight Starts	Sunrise	Sunrise Conversion (Decimal)	Hours After Midnight Turn-On (Decimal)	Hours/Minutes After 5:30 AM Turn-On Point (Decimal)	Sunset	Sunset Conversion (Decimal)	Civil Twilight Ends	Midnight Turn Off Point (Decimal)	Time of Midnight	Day Time Hours SR/SS (Decimal)	Night Time Hours SS/SR (Decimal)	21 Minutes Before Sunrise/ After Sunset (Decimal)	Total Burn Time Dusk to Dawn Per Day (Decimal)	Midnight Tracker Hours of Burn Time (Decimal)	Midnight Tracker Hours of Burn Time Savings (Decimal)
1-Apr	6:00	6:28	6.47	5.50	0.97	19:12	19.20	19:40	24.83	0:50	12.73	11.27	0.36	10.91	6.60	4.31
2-Apr	5:58	6:27	6.45	5.50	0.95	19:13	19.22	19:42	24.83	0:50	12.77	11.23	0.36	10.87	6.57	4.31
3-Apr	5:56	6:25	6.42	5.50	0.92	19:14	19.23	19:43	24.83	0:49	12.82	11.18	0.36	10.82	6.51	4.32
4-Apr	5:54	6:23	6.38	5.50	0.88	19:15	19.25	19:44	24.82	0:49	12.87	11.13	0.36	10.77	6.45	4.32
5-Apr	5:53	6:21	6.35	5.50	0.85	19:16	19.27	19:45	24.81	0:48	12.92	11.08	0.36	10.72	6.39	4.33
6-Apr	5:51	6:20	6.33	5.50	0.83	19:18	19.30	19:46	24.82	0:49	12.97	11.03	0.36	10.67	6.35	4.32
7-Apr	5:49	6:18	6.30	5.50	0.80	19:19	19.32	19:48	24.81	0:48	13.02	10.98	0.36	10.62	6.29	4.33
8-Apr	5:47	6:16	6.27	5.50	0.77	19:20	19.33	19:49	24.80	0:48	13.07	10.93	0.36	10.57	6.23	4.34
9-Apr	5:45	6:15	6.25	5.50	0.75	19:21	19.35	19:50	24.80	0:48	13.10	10.90	0.36	10.54	6.20	4.34
10-Apr	5:44	6:13	6.22	5.50	0.72	19:22	19.37	19:51	24.79	0:47	13.15	10.85	0.36	10.49	6.14	4.35
11-Apr	5:42	6:11	6.18	5.50	0.68	19:23	19.38	19:53	24.78	0:47	13.20	10.80	0.36	10.44	6.08	4.36
12-Apr	5:40	6:09	6.15	5.50	0.65	19:24	19.40	19:54	24.78	0:46	13.25	10.75	0.36	10.39	6.03	4.37
13-Apr	5:38	6:08	6.13	5.50	0.63	19:26	19.43	19:55	24.78	0:47	13.30	10.70	0.36	10.34	5.98	4.36
14-Apr	5:37	6:06	6.10	5.50	0.60	19:27	19.45	19:56	24.78	0:46	13.35	10.65	0.36	10.29	5.93	4.37
15-Apr	5:35	6:04	6.07	5.50	0.57	19:28	19.47	19:57	24.77	0:46	13.40	10.60	0.36	10.24	5.87	4.37
16-Apr	5:33	6:03	6.05	5.50	0.55	19:29	19.48	19:59	24.77	0:46	13.43	10.57	0.36	10.21	5.83	4.37
17-Apr	5:32	6:01	6.02	5.50	0.52	19:30	19.50	20:00	24.76	0:45	13.48	10.52	0.36	10.16	5.78	4.38
18-Apr	5:30	6:00	6.00	5.50	0.50	19:31	19.52	20:01	24.76	0:45	13.52	10.48	0.36	10.12	5.74	4.38
19-Apr	5:28	5:58	5.97	5.50	0.47	19:33	19.55	20:02	24.76	0:45	13.58	10.42	0.36	10.06	5.68	4.38
20-Apr	5:27	5:56	5.93	5.50	0.43	19:34	19.57	20:04	24.75	0:45	13.63	10.37	0.36	10.01	5.62	4.39
21-Apr	5:25	5:55	5.92	5.50	0.42	19:35	19.58	20:05	24.75	0:45	13.67	10.33	0.36	9.97	5.58	4.39
22-Apr	5:23	5:53	5.88	5.50	0.38	19:36	19.60	20:06	24.74	0:44	13.72	10.28	0.36	9.92	5.53	4.40
23-Apr	5:22	5:52	5.87	5.50	0.37	19:37	19.62	20:07	24.74	0:44	13.75	10.25	0.36	9.89	5.49	4.40
24-Apr	5:20	5:50	5.83	5.50	0.33	19:38	19.63	20:09	24.73	0:44	13.80	10.20	0.36	9.84	5.43	4.41
25-Apr	5:18	5:49	5.82	5.50	0.32	19:39	19.65	20:10	24.73	0:44	13.83	10.17	0.36	9.81	5.40	4.41
26-Apr	5:17	5:47	5.78	5.50	0.28	19:41	19.68	20:11	24.73	0:44	13.90	10.10	0.36	9.74	5.33	4.41
27-Apr	5:15	5:46	5.77	5.50	0.27	19:42	19.70	20:12	24.73	0:44	13.93	10.07	0.36	9.71	5.30	4.41
28-Apr	5:14	5:44	5.73	5.50	0.23	19:43	19.72	20:14	24.73	0:43	13.98	10.02	0.36	9.66	5.24	4.42
29-Apr	5:12	5:43	5.72	5.50	0.22	19:44	19.73	20:15	24.73	0:43	14.02	9.98	0.36	9.62	5.21	4.42
30-Apr	5:11	5:41	5.68	5.50	0.18	19:45	19.75	20:16	24.72	0:43	14.07	9.93	0.36	9.57	5.15	4.42
1-May	5:09	5:40	5.67	5.50	0.17	19:46	19.77	20:17	24.72	0:43	14.10	9.90	0.36	9.54	5.12	4.42
2-May	5:08	5:39	5.65	5.50	0.15	19:47	19.78	20:19	24.72	0:43	14.13	9.87	0.36	9.51	5.08	4.42
3-May	5:06	5:37	5.62	5.50	0.12	19:49	19.82	20:20	24.72	0:43	14.20	9.80	0.36	9.44	5.02	4.42
4-May	5:05	5:36	5.60	5.50	0.10	19:50	19.83	20:21	24.72	0:43	14.23	9.77	0.36	9.41	4.98	4.42
5-May	5:03	5:35	5.58	5.50	0.08	19:51	19.85	20:22	24.72	0:43	14.27	9.73	0.36	9.37	4.95	4.42
6-May	5:02	5:33	5.55	5.50	0.05	19:52	19.87	20:24	24.71	0:42	14.32	9.68	0.36	9.32	4.89	4.43
7-May	5:00	5:32	5.53	5.50	0.03	19:53	19.88	20:25	24.71	0:42	14.35	9.65	0.36	9.29	4.86	4.43
8-May	4:59	5:31	5.52	5.50	0.02	19:54	19.90	20:26	24.71	0:42	14.38	9.62	0.36	9.26	4.83	4.43
9-May	4:58	5:30	5.50	5.50	0.00	19:55	19.92	20:27	24.71	0:42	14.42	9.58	0.36	9.22	4.79	4.43
10-May	4:57	5:28	5.47	5.50	-0.03	19:56	19.93	20:28	24.70	0:42	14.47	9.53	0.36	9.17	4.73	4.44
11-May	4:55	5:27	5.45	5.50	-0.05	19:57	19.95	20:30	24.70	0:42	14.50	9.50	0.36	9.14	4.70	4.44
12-May	4:54	5:26	5.43	5.50	-0.07	19:59	19.98	20:31	24.71	0:42	14.55	9.45	0.36	9.09	4.66	4.43
13-May	4:53	5:25	5.42	5.50	-0.08	20:00	20.00	20:32	24.71	0:42	14.58	9.42	0.36	9.06	4.63	4.43
14-May	4:52	5:24	5.40	5.50	-0.10	20:01	20.02	20:33	24.71	0:42	14.62	9.38	0.36	9.02	4.59	4.43
15-May	4:50	5:23	5.38	5.50	-0.12	20:02	20.03	20:34	24.71	0:42	14.65	9.35	0.36	8.99	4.56	4.43
16-May	4:49	5:22	5.37	5.50	-0.13	20:03	20.05	20:36	24.71	0:42	14.68	9.32	0.36	8.96	4.53	4.43
17-May	4:48	5:21	5.35	5.50	-0.15	20:04	20.07	20:37	24.71	0:42	14.72	9.28	0.36	8.92	4.49	4.43
18-May	4:47	5:20	5.33	5.50	-0.17	20:05	20.08	20:38	24.71	0:42	14.75	9.25	0.36	8.89	4.46	4.43
19-May	4:46	5:19	5.32	5.50	-0.18	20:06	20.10	20:39	24.71	0:42	14.78	9.22	0.36	8.86	4.43	4.43
20-May	4:45	5:18	5.30	5.50	-0.20	20:07	20.12	20:40	24.71	0:42	14.82	9.18	0.36	8.82	4.39	4.43
21-May	4:44	5:17	5.28	5.50	-0.22	20:08	20.13	20:41	24.71	0:42	14.85	9.15	0.36	8.79	4.36	4.43
22-May	4:43	5:16	5.27	5.50	-0.23	20:09	20.15	20:42	24.71	0:42	14.88	9.12	0.36	8.76	4.33	4.43
23-May	4:42	5:16	5.27	5.50	-0.23	20:10	20.17	20:43	24.72	0:43	14.90	9.10	0.36	8.74	4.32	4.42
24-May	4:41	5:15	5.25	5.50	-0.25	20:11	20.18	20:44	24.72	0:43	14.93	9.07	0.36	8.71	4.28	4.42
25-May	4:40	5:14	5.23	5.50	-0.27	20:12	20.20	20:45	24.72	0:43	14.97	9.03	0.36	8.67	4.25	4.42
26-May	4:39	5:13	5.22	5.50	-0.28	20:13	20.22	20:46	24.72	0:43	15.00	9.00	0.36	8.64	4.22	4.42
27-May	4:39	5:13	5.22	5.50	-0.28	20:14	20.23	20:47	24.73	0:43	15.02	8.98	0.36	8.62	4.21	4.42
28-May	4:38	5:12	5.20	5.50	-0.30	20:14	20.23	20:48	24.72	0:43	15.03	8.97	0.36	8.61	4.18	4.42
29-May	4:37	5:11	5.18	5.50	-0.32	20:15	20.25	20:49	24.72	0:43	15.07	8.93	0.36	8.57	4.15	4.42
30-May	4:37	5:11	5.18	5.50	-0.32	20:16	20.27	20:50	24.73	0:43	15.08	8.92	0.36	8.56	4.14	4.42
31-May	4:36	5:10	5.17	5.50	-0.33	20:17	20.28	20:51	24.73	0:43	15.12	8.88	0.36	8.52	4.11	4.42
1-Jun	4:35	5:10	5.17	5.50	-0.33	20:18	20.30	20:52	24.73	0:44	15.13	8.87	0.36	8.51	4.10	4.41
2-Jun	4:35	5:09	5.15	5.50	-0.35	20:19	20.32									

Part-Night Hours of Operation - Rate Schedule M																
(Off at Midnight/On at 5:30 AM)																
Manchester NH																
Day of Year	Civil Twilight Starts	Sunrise	Sunrise Conversion (Decimal)	Hours After Midnight Turn-On (Decimal)	Hours/Minutes After 5:30 AM Turn-On Point (Decimal)	Sunset	Sunset Conversion (Decimal)	Civil Twilight Ends	Midnight Turn Off Point (Decimal)	Time of Midnight	Day Time Hours SR/SS (Decimal)	Night Time Hours SS/SR (Decimal)	21 Minutes Before Sunrise/ After Sunset (Decimal)	Total Burn Time Dusk to Dawn Per Day (Decimal)	Midnight Tracker Hours of Burn Time (Decimal)	Midnight Tracker Hours of Burn Time Savings (Decimal)
1-Jul	4:35	5:10	5.17	5.50	-0.33	20:28	20.47	21:04	24.82	0:49	15.30	8.70	0.36	8.34	4.02	4.32
2-Jul	4:36	5:11	5.18	5.50	-0.32	20:28	20.47	21:03	24.83	0:49	15.28	8.72	0.36	8.36	4.04	4.32
3-Jul	4:37	5:12	5.20	5.50	-0.30	20:28	20.47	21:03	24.83	0:50	15.27	8.73	0.36	8.37	4.07	4.31
4-Jul	4:37	5:12	5.20	5.50	-0.30	20:28	20.47	21:03	24.83	0:50	15.27	8.73	0.36	8.37	4.07	4.31
5-Jul	4:38	5:13	5.22	5.50	-0.28	20:28	20.47	21:02	24.84	0:50	15.25	8.75	0.36	8.39	4.09	4.30
6-Jul	4:39	5:13	5.22	5.50	-0.28	20:27	20.45	21:02	24.83	0:50	15.23	8.77	0.36	8.41	4.10	4.31
7-Jul	4:39	5:14	5.23	5.50	-0.27	20:27	20.45	21:02	24.84	0:50	15.22	8.78	0.36	8.42	4.13	4.30
8-Jul	4:40	5:15	5.25	5.50	-0.25	20:27	20.45	21:01	24.85	0:51	15.20	8.80	0.36	8.44	4.15	4.29
9-Jul	4:41	5:15	5.25	5.50	-0.25	20:26	20.43	21:01	24.84	0:50	15.18	8.82	0.36	8.46	4.16	4.30
10-Jul	4:42	5:16	5.27	5.50	-0.23	20:26	20.43	21:00	24.85	0:51	15.17	8.83	0.36	8.47	4.18	4.29
11-Jul	4:43	5:17	5.28	5.50	-0.22	20:25	20.42	21:00	24.85	0:51	15.13	8.87	0.36	8.51	4.22	4.29
12-Jul	4:43	5:18	5.30	5.50	-0.20	20:25	20.42	20:59	24.86	0:51	15.12	8.88	0.36	8.52	4.24	4.28
13-Jul	4:44	5:19	5.32	5.50	-0.18	20:24	20.40	20:58	24.86	0:51	15.08	8.92	0.36	8.56	4.28	4.28
14-Jul	4:45	5:19	5.32	5.50	-0.18	20:23	20.38	20:58	24.85	0:51	15.07	8.93	0.36	8.57	4.28	4.29
15-Jul	4:46	5:20	5.33	5.50	-0.17	20:23	20.38	20:57	24.86	0:51	15.05	8.95	0.36	8.59	4.31	4.28
16-Jul	4:47	5:21	5.35	5.50	-0.15	20:22	20.37	20:56	24.86	0:51	15.02	8.98	0.36	8.62	4.34	4.28
17-Jul	4:48	5:22	5.37	5.50	-0.13	20:21	20.35	20:55	24.86	0:51	14.98	9.02	0.36	8.66	4.38	4.28
18-Jul	4:49	5:23	5.38	5.50	-0.12	20:21	20.35	20:54	24.87	0:52	14.97	9.03	0.36	8.67	4.40	4.27
19-Jul	4:50	5:24	5.40	5.50	-0.10	20:20	20.33	20:54	24.87	0:52	14.93	9.07	0.36	8.71	4.43	4.27
20-Jul	4:51	5:25	5.42	5.50	-0.08	20:19	20.32	20:53	24.87	0:52	14.90	9.10	0.36	8.74	4.47	4.27
21-Jul	4:52	5:26	5.43	5.50	-0.07	20:18	20.30	20:52	24.87	0:52	14.87	9.13	0.36	8.77	4.50	4.27
22-Jul	4:53	5:26	5.43	5.50	-0.07	20:17	20.28	20:51	24.86	0:51	14.85	9.15	0.36	8.79	4.51	4.28
23-Jul	4:54	5:27	5.45	5.50	-0.05	20:17	20.28	20:50	24.87	0:52	14.83	9.17	0.36	8.81	4.53	4.27
24-Jul	4:55	5:28	5.47	5.50	-0.03	20:16	20.27	20:49	24.87	0:52	14.80	9.20	0.36	8.84	4.57	4.27
25-Jul	4:56	5:29	5.48	5.50	-0.02	20:15	20.25	20:48	24.87	0:52	14.77	9.23	0.36	8.87	4.60	4.27
26-Jul	4:57	5:30	5.50	5.50	0.00	20:14	20.23	20:46	24.87	0:52	14.73	9.27	0.36	8.91	4.63	4.27
27-Jul	4:59	5:31	5.52	5.50	0.02	20:13	20.22	20:45	24.87	0:52	14.70	9.30	0.36	8.94	4.67	4.27
28-Jul	5:00	5:32	5.53	5.50	0.03	20:12	20.20	20:44	24.87	0:52	14.67	9.33	0.36	8.97	4.70	4.27
29-Jul	5:01	5:33	5.55	5.50	0.05	20:10	20.17	20:43	24.86	0:51	14.62	9.38	0.36	9.02	4.74	4.28
30-Jul	5:02	5:34	5.57	5.50	0.07	20:09	20.15	20:42	24.86	0:51	14.58	9.42	0.36	9.06	4.78	4.28
31-Jul	5:03	5:35	5.58	5.50	0.08	20:08	20.13	20:41	24.86	0:51	14.55	9.45	0.36	9.09	4.81	4.28
1-Aug	5:04	5:36	5.60	5.50	0.10	20:07	20.12	20:39	24.86	0:51	14.52	9.48	0.36	9.12	4.84	4.28
2-Aug	5:05	5:37	5.62	5.50	0.12	20:06	20.10	20:38	24.86	0:51	14.48	9.52	0.36	9.16	4.88	4.28
3-Aug	5:07	5:39	5.65	5.50	0.15	20:05	20.08	20:37	24.87	0:52	14.43	9.57	0.36	9.21	4.93	4.27
4-Aug	5:08	5:40	5.67	5.50	0.17	20:03	20.05	20:35	24.86	0:51	14.38	9.62	0.36	9.26	4.98	4.28
5-Aug	5:09	5:41	5.68	5.50	0.18	20:02	20.03	20:34	24.86	0:51	14.35	9.65	0.36	9.29	5.01	4.28
6-Aug	5:10	5:42	5.70	5.50	0.20	20:01	20.02	20:32	24.86	0:51	14.32	9.68	0.36	9.32	5.04	4.28
7-Aug	5:11	5:43	5.72	5.50	0.22	20:00	20.00	20:31	24.86	0:51	14.28	9.72	0.36	9.36	5.08	4.28
8-Aug	5:12	5:44	5.73	5.50	0.23	19:58	19.97	20:30	24.85	0:51	14.23	9.77	0.36	9.41	5.12	4.29
9-Aug	5:14	5:45	5.75	5.50	0.25	19:57	19.95	20:28	24.85	0:51	14.20	9.80	0.36	9.44	5.15	4.29
10-Aug	5:15	5:46	5.77	5.50	0.27	19:56	19.93	20:27	24.85	0:51	14.17	9.83	0.36	9.47	5.18	4.29
11-Aug	5:16	5:47	5.78	5.50	0.28	19:54	19.90	20:25	24.84	0:50	14.12	9.88	0.36	9.52	5.23	4.30
12-Aug	5:17	5:48	5.80	5.50	0.30	19:53	19.88	20:24	24.84	0:50	14.08	9.92	0.36	9.56	5.26	4.30
13-Aug	5:18	5:49	5.82	5.50	0.32	19:51	19.85	20:22	24.83	0:50	14.03	9.97	0.36	9.61	5.30	4.31
14-Aug	5:20	5:50	5.83	5.50	0.33	19:50	19.83	20:21	24.83	0:50	14.00	10.00	0.36	9.64	5.33	4.31
15-Aug	5:21	5:51	5.85	5.50	0.35	19:48	19.80	20:19	24.83	0:49	13.95	10.05	0.36	9.69	5.38	4.32
16-Aug	5:22	5:53	5.88	5.50	0.38	19:47	19.78	20:17	24.83	0:50	13.90	10.10	0.36	9.74	5.43	4.31
17-Aug	5:23	5:54	5.90	5.50	0.40	19:45	19.75	20:16	24.83	0:49	13.85	10.15	0.36	9.79	5.48	4.32
18-Aug	5:24	5:55	5.92	5.50	0.42	19:44	19.73	20:14	24.83	0:49	13.82	10.18	0.36	9.82	5.51	4.32
19-Aug	5:26	5:56	5.93	5.50	0.43	19:42	19.70	20:12	24.82	0:49	13.77	10.23	0.36	9.87	5.55	4.32
20-Aug	5:27	5:57	5.95	5.50	0.45	19:41	19.68	20:11	24.82	0:49	13.73	10.27	0.36	9.91	5.58	4.32
21-Aug	5:28	5:58	5.97	5.50	0.47	19:39	19.65	20:09	24.81	0:48	13.68	10.32	0.36	9.96	5.63	4.33
22-Aug	5:29	5:59	5.98	5.50	0.48	19:38	19.63	20:07	24.81	0:48	13.65	10.35	0.36	9.99	5.66	4.33
23-Aug	5:30	6:00	6.00	5.50	0.50	19:36	19.60	20:06	24.80	0:48	13.60	10.40	0.36	10.04	5.70	4.34
24-Aug	5:31	6:01	6.02	5.50	0.52	19:34	19.57	20:04	24.79	0:47	13.55	10.45	0.36	10.09	5.74	4.35
25-Aug	5:33	6:02	6.03	5.50	0.53	19:33	19.55	20:02	24.79	0:47	13.52	10.48	0.36	10.12	5.78	4.35
26-Aug	5:34	6:03	6.05	5.50	0.55	19:31	19.52	20:01	24.78	0:47	13.47	10.53	0.36	10.17	5.82	4.36
27-Aug	5:35	6:04	6.07	5.50	0.57	19:29	19.48	19:59	24.78	0:46	13.42	10.58	0.36	10.22	5.86	4.37
28-Aug	5:36	6:06	6.10	5.50	0.60	19:28	19.47	19:57	24.78	0:47	13.37	10.63	0.36	10.27	5.92	4.36
29-Aug	5:37	6:07	6.12	5.50	0.62	19:26	19.43	19:55	24.78	0:46	13.32	10.68	0.36	10.32	5.96	4.37
30-Aug	5:38	6:08	6.13	5.50	0.63	19:24	19.40	19:54	24.77	0:46	13.27	10.73	0.36	10.37	6.00	4.37
31-Aug	5:40	6:09	6.15	5.50	0.65	19:23	19.38	19:52	24.77	0:46	13.23	10.77	0.36	10.41	6.03	4.37
1-Sep	5:41	6:10	6.17	5.50	0.67	19:21	19.35	19:50	24.2							

Part-Night Hours of Operation - Rate Schedule M																
(Off at Midnight/On at 5:30 AM)																
Manchester NH																
Day of Year	Civil Twilight Starts	Sunrise	Sunrise Conversion (Decimal)	Hours After Midnight Turn-On (Decimal)	Hours/Minutes After 5:30 AM Turn-On Point (Decimal)	Sunset	Sunset Conversion (Decimal)	Civil Twilight Ends	Midnight Turn Off Point (Decimal)	Time of Midnight	Day Time Hours SR/SS (Decimal)	Night Time Hours SS/SR (Decimal)	21 Minutes Before Sunrise/ After Sunset (Decimal)	Total Burn Time Dusk to Dawn Per Day (Decimal)	Midnight Tracker Hours of Burn Time (Decimal)	Midnight Tracker Hours of Burn Time Savings (Decimal)
1-Oct	6:14	6:43	6.72	5.50	1.22	18:27	18.45	18:56	24.58	0:35	11.73	12.27	0.36	11.91	7.35	4.56
2-Oct	6:16	6:44	6.73	5.50	1.23	18:26	18.43	18:54	24.58	0:35	11.70	12.30	0.36	11.94	7.38	4.56
3-Oct	6:17	6:45	6.75	5.50	1.25	18:24	18.40	18:52	24.58	0:34	11.65	12.35	0.36	11.99	7.43	4.57
4-Oct	6:18	6:46	6.77	5.50	1.27	18:22	18.37	18:50	24.57	0:34	11.60	12.40	0.36	12.04	7.47	4.57
5-Oct	6:19	6:47	6.78	5.50	1.28	18:20	18.33	18:49	24.56	0:33	11.55	12.45	0.36	12.09	7.51	4.58
6-Oct	6:20	6:48	6.80	5.50	1.30	18:19	18.32	18:47	24.56	0:33	11.52	12.48	0.36	12.12	7.54	4.58
7-Oct	6:21	6:50	6.83	5.50	1.33	18:17	18.28	18:45	24.56	0:33	11.45	12.55	0.36	12.19	7.61	4.58
8-Oct	6:22	6:51	6.85	5.50	1.35	18:15	18.25	18:44	24.55	0:33	11.40	12.60	0.36	12.24	7.65	4.59
9-Oct	6:23	6:52	6.87	5.50	1.37	18:14	18.23	18:42	24.55	0:33	11.37	12.63	0.36	12.27	7.68	4.59
10-Oct	6:25	6:53	6.88	5.50	1.38	18:12	18.20	18:40	24.54	0:32	11.32	12.68	0.36	12.32	7.73	4.60
11-Oct	6:26	6:54	6.90	5.50	1.40	18:10	18.17	18:39	24.53	0:32	11.27	12.73	0.36	12.37	7.77	4.61
12-Oct	6:27	6:55	6.92	5.50	1.42	18:09	18.15	18:37	24.53	0:32	11.23	12.77	0.36	12.41	7.80	4.61
13-Oct	6:28	6:56	6.93	5.50	1.43	18:07	18.12	18:35	24.53	0:31	11.18	12.82	0.36	12.46	7.84	4.62
14-Oct	6:29	6:58	6.97	5.50	1.47	18:05	18.08	18:34	24.53	0:31	11.12	12.88	0.36	12.52	7.91	4.62
15-Oct	6:30	6:59	6.98	5.50	1.48	18:04	18.07	18:32	24.53	0:31	11.08	12.92	0.36	12.56	7.94	4.62
16-Oct	6:31	7:00	7.00	5.50	1.50	18:02	18.03	18:31	24.52	0:31	11.03	12.97	0.36	12.61	7.98	4.62
17-Oct	6:33	7:01	7.02	5.50	1.52	18:00	18.00	18:29	24.51	0:30	10.98	13.02	0.36	12.66	8.03	4.63
18-Oct	6:34	7:02	7.03	5.50	1.53	17:59	17.98	18:27	24.51	0:30	10.95	13.05	0.36	12.69	8.06	4.63
19-Oct	6:35	7:04	7.07	5.50	1.57	17:57	17.95	18:26	24.51	0:30	10.88	13.12	0.36	12.76	8.13	4.63
20-Oct	6:36	7:05	7.08	5.50	1.58	17:56	17.93	18:24	24.51	0:30	10.85	13.15	0.36	12.79	8.16	4.63
21-Oct	6:37	7:06	7.10	5.50	1.60	17:54	17.90	18:23	24.50	0:30	10.80	13.20	0.36	12.84	8.20	4.64
22-Oct	6:38	7:07	7.12	5.50	1.62	17:53	17.88	18:21	24.50	0:30	10.77	13.23	0.36	12.87	8.23	4.64
23-Oct	6:40	7:09	7.15	5.50	1.65	17:51	17.85	18:20	24.50	0:30	10.70	13.30	0.36	12.94	8.30	4.64
24-Oct	6:41	7:10	7.17	5.50	1.67	17:49	17.82	18:18	24.49	0:29	10.65	13.35	0.36	12.99	8.34	4.65
25-Oct	6:42	7:11	7.18	5.50	1.68	17:48	17.80	18:17	24.49	0:29	10.62	13.38	0.36	13.02	8.38	4.65
26-Oct	6:43	7:12	7.20	5.50	1.70	17:47	17.78	18:16	24.49	0:29	10.58	13.42	0.36	13.06	8.41	4.65
27-Oct	6:44	7:14	7.23	5.50	1.73	17:45	17.75	18:14	24.49	0:29	10.52	13.48	0.36	13.12	8.48	4.65
28-Oct	6:46	7:15	7.25	5.50	1.75	17:44	17.73	18:13	24.49	0:29	10.48	13.52	0.36	13.16	8.51	4.65
29-Oct	6:47	7:16	7.27	5.50	1.77	17:42	17.70	18:12	24.48	0:29	10.43	13.57	0.36	13.21	8.55	4.66
30-Oct	6:48	7:17	7.28	5.50	1.78	17:41	17.68	18:10	24.48	0:29	10.40	13.60	0.36	13.24	8.58	4.66
31-Oct	6:49	7:19	7.32	5.50	1.82	17:40	17.67	18:09	24.49	0:29	10.35	13.65	0.36	13.29	8.64	4.65
1-Nov	5:50	6:20	6.33	5.50	0.83	16:38	16.63	17:08	23.48	23:29	10.30	13.70	0.36	13.34	7.68	5.66
2-Nov	5:52	6:21	6.35	5.50	0.85	16:37	16.62	17:07	23.48	23:29	10.27	13.73	0.36	13.37	7.72	5.66
3-Nov	5:53	6:22	6.37	5.50	0.87	16:36	16.60	17:05	23.48	23:29	10.23	13.77	0.36	13.41	7.75	5.66
4-Nov	5:54	6:24	6.40	5.50	0.90	16:34	16.57	17:04	23.48	23:29	10.17	13.83	0.36	13.47	7.82	5.66
5-Nov	5:55	6:25	6.42	5.50	0.92	16:33	16.55	17:03	23.48	23:29	10.13	13.87	0.36	13.51	7.85	5.66
6-Nov	5:56	6:26	6.43	5.50	0.93	16:32	16.53	17:02	23.48	23:29	10.10	13.90	0.36	13.54	7.88	5.66
7-Nov	5:58	6:27	6.45	5.50	0.95	16:31	16.52	17:01	23.48	23:29	10.07	13.93	0.36	13.57	7.92	5.66
8-Nov	5:59	6:29	6.48	5.50	0.98	16:30	16.50	17:00	23.49	23:29	10.02	13.98	0.36	13.62	7.98	5.65
9-Nov	6:00	6:30	6.50	5.50	1.00	16:29	16.48	16:59	23.49	23:29	9.98	14.02	0.36	13.66	8.01	5.65
10-Nov	6:01	6:31	6.52	5.50	1.02	16:27	16.45	16:58	23.48	23:29	9.93	14.07	0.36	13.71	8.05	5.66
11-Nov	6:02	6:33	6.55	5.50	1.05	16:26	16.43	16:57	23.49	23:29	9.88	14.12	0.36	13.76	8.11	5.65
12-Nov	6:04	6:34	6.57	5.50	1.07	16:25	16.42	16:56	23.49	23:29	9.85	14.15	0.36	13.79	8.14	5.65
13-Nov	6:05	6:35	6.58	5.50	1.08	16:24	16.40	16:55	23.49	23:29	9.82	14.18	0.36	13.82	8.18	5.65
14-Nov	6:06	6:36	6.60	5.50	1.10	16:23	16.38	16:54	23.49	23:29	9.78	14.22	0.36	13.86	8.21	5.65
15-Nov	6:07	6:38	6.63	5.50	1.13	16:23	16.38	16:53	23.51	23:30	9.75	14.25	0.36	13.89	8.26	5.63
16-Nov	6:08	6:39	6.65	5.50	1.15	16:22	16.37	16:52	23.51	23:30	9.72	14.28	0.36	13.92	8.29	5.63
17-Nov	6:10	6:40	6.67	5.50	1.17	16:21	16.35	16:51	23.51	23:30	9.68	14.32	0.36	13.96	8.33	5.63
18-Nov	6:11	6:41	6.68	5.50	1.18	16:20	16.33	16:51	23.51	23:30	9.65	14.35	0.36	13.99	8.36	5.63
19-Nov	6:12	6:43	6.72	5.50	1.22	16:19	16.32	16:50	23.52	23:31	9.60	14.40	0.36	14.04	8.42	5.62
20-Nov	6:13	6:44	6.73	5.50	1.23	16:18	16.30	16:49	23.52	23:31	9.57	14.43	0.36	14.07	8.45	5.62
21-Nov	6:14	6:45	6.75	5.50	1.25	16:18	16.30	16:49	23.53	23:31	9.55	14.45	0.36	14.09	8.48	5.62
22-Nov	6:15	6:46	6.77	5.50	1.27	16:17	16.28	16:48	23.53	23:31	9.52	14.48	0.36	14.12	8.51	5.62
23-Nov	6:16	6:48	6.80	5.50	1.30	16:16	16.27	16:47	23.53	23:32	9.47	14.53	0.36	14.17	8.57	5.61
24-Nov	6:18	6:49	6.82	5.50	1.32	16:16	16.27	16:47	23.54	23:32	9.45	14.55	0.36	14.19	8.59	5.60
25-Nov	6:19	6:50	6.83	5.50	1.33	16:15	16.25	16:46	23.54	23:32	9.42	14.58	0.36	14.22	8.63	5.60
26-Nov	6:20	6:51	6.85	5.50	1.35	16:15	16.25	16:46	23.55	23:33	9.40	14.60	0.36	14.24	8.65	5.59
27-Nov	6:21	6:52	6.87	5.50	1.37	16:14	16.23	16:46	23.55	23:33	9.37	14.63	0.36	14.27	8.68	5.59
28-Nov	6:22	6:53	6.88	5.50	1.38	16:14	16.23	16:45	23.56	23:33	9.35	14.65	0.36	14.29	8.71	5.58
29-Nov	6:23	6:55	6.92	5.50	1.42	16:13	16.22	16:45	23.57	23:34	9.30	14.70	0.36	14.34	8.77	5.57
30-Nov	6:24	6:56	6.93	5.50	1.43	16:13	16.22	16:44	23.58	23:34	9.28	14.72	0.36	14.36	8.79	5.57

GRANITE STATE ELECTRIC COMPANY
d/b/a NATIONAL GRID
DE 10-____
Witness: Walter

SCHEDULE JEW – 3

Calculation of Part Night Charge

Granite State Electric Company

Part Night Charge**Service Charge Cost Development**

Description

Service Response to Customer Requested
Implementation of Part-Night Service**Labor**

(1)	Trouble Shooter - Hourly Rate	\$40.60	Labor Rate per Negotiated Union Agreement
(2)	Installation & Travel Time (Minutes)	70	NG Engineering - Average Estimate (Travel/Set-up/Work/ Breakdown)
(3)	SubTotal Direct Labor	\$47.37	Line (1) * Line (2)/60

Labor Overhead

(4)	Overhead Labor Cost	146.85%	NG Accounting Services - Monthly Allocation Rates
(5)	SubTotal Labor Overhead	\$69.56	Line (3) * Line (4)
(6)	Total Labor	\$116.93	Sum Lines (3), (5)

Equipment

(7)	Truck-Aerial Medium Duty	\$13.27	NG Fleet Category Cost Assessment
(8)	Installation & Travel Time (Minutes)	70	NG Engineering - Average Estimate (Travel/Set-up/Work/ Breakdown)
(9)	Total Equipment	\$15.48	Line (7) * Line (8)

Material

(10)	Photo-Electric Control	\$15.00	
(11)	SubTotal Material	\$15.00	Sum Line (10)

Material Overhead

(12)	Stores Handling	19.31%	\$2.90	NG Accounting Services - Monthly Allocation Rates
(13)	SubTotal Material Overhead	\$2.90		Sum Lines (12)
(14)	Total Material	\$17.90		Sum Lines (11), (13)
(15)	Total Labor, Equipment Material & Misc. Costs	\$150.31		Sum Lines (6), (9), (14)