

**AGREEMENT FOR PURCHASE OF EQUIPMENT
BETWEEN CITY OF TEMECULA AND CALIFORNIA ELECTRICAL SUPPLY
WIRELESS LIGHTING CONTROL SYSTEM HARDWARE, RFQ NO.43**

THIS AGREEMENT is made and effective as of **May 14, 2019**, between the City of Temecula , a municipal corporation (hereinafter referred to as "City"), and **California Electrical Supply a California Corporation** (hereinafter referred to as "Vendor"). In consideration of the mutual covenants and conditions set forth herein, the parties agree as follows:

1. TERM AND TERMINATION

This Agreement shall commence on **May 14, 2019**, and shall remain and continue in effect until tasks described herein are completed, but in no event later than **May 14, 2020**, unless sooner terminated pursuant to the provisions of this Agreement.

The City may terminate this Agreement at any time for any or no reason by providing the Vendor with not less than thirty (30) days' prior, written notice. Provided Vendor is not then in breach and to the extent not already paid, Vendor will be compensated at the agreed upon rate and price, for Products theretofore delivered, and Services satisfactorily performed. Vendor may terminate only for cause.

2. PURCHASE AND SALE OF EQUIPMENT

On and subject to the terms and conditions set forth in this Agreement and the Agreement Documents, Vendor agrees to sell, deliver, and provide to City the products and professional services , as more particularly described in Exhibit A, "Description of Products and Services" (hereinafter sometimes individually and collectively referred to as the "Products" and/or "Services"), attached hereto and incorporated by reference herein.

3. PURCHASE PRICE

The Purchase Price which City agrees to pay to Vendor for the Products and Services shall **not exceed seven hundred fifty thousand three hundred seventy five dollars (\$750,375.00)**. The final Purchase Price for the Products and Services paid by the City to Vendor shall be based on actual units ordered and received by the City in accordance with the following schedule: **\$92.00/unit plus 8.75% sales tax**. The provision of software services related to the Products and Services is not a part of this Agreement.

The City Manager may approve additional work up to ten percent (10%) of the amount of the Agreement as approved by City Council. Any additional work in excess of this amount shall be approved by the City Council.

4. REPRESENTATION AND WARRANTIES OF VENDOR

Vendor makes the following representations and warranties to City:

a. Authority and Consents. Vendor has the right, power, legal capacity and authority to enter into and perform its obligations under this Agreement. No approvals or consents of any persons are necessary in connection with Vendor's execution, delivery and performance of this Agreement, except for such as have been obtained on or prior to the date hereof. The execution, delivery and performance of this Agreement by Vendor have been duly authorized by all necessary action on the part of Vendor and constitute the legal, valid and binding obligations of Vendor, enforceable against Vendor in accordance with their respective terms.

b. Title, License and Operating Condition. Vendor has good and marketable title to all of the Products. All Products are free and clear of any restrictions on or conditions to transfer or assignment, and upon payment therefor, City will acquire absolute ownership of the Products free and clear of mortgages, liens, pledges, charges, encumbrances, equities, claims, covenants, conditions and restrictions except for such as may be created or granted by City. All of the Products are new and unused, and in good operating condition, free of any defects, and in conformity with the specifications, descriptions, representations and warranties set forth in the Agreement Documents. Vendor is aware that City is purchasing the Products for use in the City's Wireless Roadway Lighting Control System project, and that City is relying on the warranties of the Vendor that the Products are fit for this purpose and the ordinary purposes for which the Products are normally used.

c. Product Warranty. Vendor agrees that all of the Products are warranted to be free from defects and shall properly function as described in all applicable documentation, for not less than ten (10) years from the date of acceptance by the City.

d. Vendor warrants that all of its services provided hereunder shall be free from defects, or Vendor shall re-perform such services deemed to be defective, for a period of 10 years following the date its original performance.

e. Full Disclosure. None of the representations and warranties made by Vendor in this Agreement contains or will contain any untrue statements of a material fact, or omit to state a material fact necessary to make the statements made, in light of the circumstances under which they were made, not misleading.

5. TIME OF DELIVERY OF PRODUCTS AND SERVICES

The date and time of delivery of the Products shall be on or before 10 weeks from date of product order. The Vendor shall provide the Services required to be performed onsite on City premises pursuant to an agreed upon written schedule of performance and the same shall thereupon be deemed a part of this Agreement.

6. PLACE OF PRODUCT DELIVERY

The Products shall be delivered to the following location:

Jefferson Recreation Center
41375 McCabe Court
Temecula, CA 92590

7. TITLE AND RISK OF LOSS

Title to and the risk of loss, damage and destruction of the Products shall remain with the Vendor until after inspection and acceptance of the Products by City. City shall have 10 business days to complete its inspection.

8. INSPECTION AND ACCEPTANCE

City shall inspect the Products at the time and place of delivery. Such inspection may include reasonable tests and use of the Products by City. If, in the determination of City, any of the Products fail to conform to the Agreement IN ANY MANNER OR RESPECT, City shall so notify Vendor within ten (10) days of delivery of the Products to City. Failing such notice, the Products shall be deemed accepted by City as of the date of receipt.

9. REJECTION

In the event of such notice of non-conformity by City pursuant to Section 8, above, City may, at its option, (1) reject all of the Products, (2) accept all of the Products, or (3) accept any portion of the Products and reject the remainder. The exercise of any of the above options shall be "without prejudice" and with full reservation of any rights and remedies of City attendant upon a breach. In the event of such notice and election by City, City agrees to comply with all reasonable instructions of Vendor and, in the event that expenses are incurred by City in following such instructions, Vendor shall indemnify City in full for such expenses.

10. STRICT COMPLIANCE AND SUBSTITUTION OF PERFORMANCE

This Agreement calls for strict compliance. Vendor expressly agrees that both the Products tendered and the tender itself will conform fully to the terms and conditions of this Agreement on the original tender. In the event of rejection by City of the whole of the Products or any part thereof pursuant to Section 9, above, , City may, but is not required to, accept any substitute product from Vendor or engage in subsequent efforts to effect a cure of the original tender by Vendor.

11. INDEMNIFICATION

a. **Indemnification.** To the maximum extent permitted by law, Vendor agrees to defend, indemnify, protect, and hold harmless, the City of Temecula, Temecula Community Services District, and/or the Successor Agency to the Temecula Redevelopment Agency, and each of City's, District's, and Agency's officers, officials, employees, agents, and/or volunteers ("indemnitees"), from and against any and all claims, demands, losses, defense costs or expenses, actions, liability or damages of any kind and nature which any of the Indemnitees may sustain or incur or which may be imposed upon them for injury to or death of persons, or damage to property arising out of Vendor's negligent or wrongful acts or omissions arising out of or in any way related to the Work or the Vendor's performance or non-performance of this Agreement, excepting only liability arising out of the sole negligence of any of the Indemnitees, as established by final judicial decision or agreement of the parties.

12. AGREEMENT DOCUMENTS

a. This Agreement consists of this Agreement and exhibits and attachments hereto, together with the following incorporated documents, all of which collectively comprise the "Agreement Documents" and, by this reference, are incorporated herein and made a part hereof:

- the RFQ (RFQ No.43) and all attachments and exhibits thereto
- CES Quote Dated 3/29/19, Description of Products / Scope of Work (from the Request for Quotes No.43, response to the RFQ, attached hereto as Exhibit B

b. In the event any conflict or inconsistency between any provision, term or condition contained in any of the Agreement Documents, the terms and conditions of this Agreement, then the RFQ, then the remainder of the attachments and Exhibits are controlling.

13. REMEDIES

The remedies and rights conferred on the City by this Agreement are in addition to and cumulative with all other remedies and rights accorded the City under law or equity.

15. WORK PRODUCT.

a. Ownership.

(1) Unless otherwise agreed upon in writing, all draft and final reports, documents, and other written material, and any and all images, ideas, concepts, designs including website designs, source code, object code, electronic data and files, and/or other media whatsoever created or developed by Vendor in the performance of this Agreement (collectively, "Work Product") shall be considered to be "works made for hire" for the benefit of City. All Work Product and any and all intellectual property rights arising from their creation, including, but not limited to, all copyrights and other proprietary rights, shall be and remain the property of City without restriction or limitation upon their use, duplication or dissemination by City upon final payment being made. Vendor shall not obtain or attempt to obtain copyright protection as to any of the Work Product. City shall not obtain ownership of any software not created specifically for City's use, or any Vendor or third party owned software that is not expressly conveyed in writing to the City.

(2) Vendor hereby assigns to City all rights of ownership to the Work Product, including any and all related intellectual property and proprietary rights that are not otherwise vested in the City pursuant to subsection (1), above.

(3) Vendor warrants and represents that it has secured all necessary licenses, consents or approvals necessary to the production of the Work Product, and that upon final payment, City shall have full legal title to the Work Product, and full legal authority and the right to use and reproduce the Work Product for any purpose. Vendor shall defend, indemnify and hold City, and its elected officials, officers, employees, servants, attorneys, designated volunteers, and agents serving as independent contractors in the role of city officials, harmless from any loss, claim or liability in any way related to a claim that City's use of any of the Work Product is violating federal, state or local laws, or any contractual provisions, or any rights or laws relating to trade names, licenses, franchises, copyrights, patents or other means of protecting intellectual property rights and/or interests in products, ideas or inventions. Consultant shall bear all costs arising from the use of patented, copyrighted, trade secret or trademarked documents, materials, equipment, devices or processes in connection with its provision of the Work Product produced under this Agreement. In the event any the use of any of the Work Product or other deliverables, including software licensed for use by the City, is held to constitute an infringement and the use of any of the same is enjoined, Vendor, at its expense, shall: (a) secure for City the right to continue using the Work Product and other deliverables by suspension of any injunction, or by procuring a license or licenses for City; or (b) modify the Work Product and other deliverables so that they become non-infringing while remaining in compliance with the requirements of this Agreement. This covenant shall survive the termination of this Agreement.

16. SURVIVAL OF TERMS

All representations, warranties, covenants and agreements of the parties contained in this Agreement shall survive the execution, delivery and performance of this Agreement.

17. LEGAL RESPONSIBILITIES

The Vendor shall keep itself informed of State and Federal laws and regulations which in any manner affect those employed by it or in any way affect the performance of its service pursuant to this Agreement. The Vendor shall at all times observe and comply with all such laws and regulations. The City, and its officers and employees, shall not be liable at law or in equity occasioned by failure of the Vendor to comply with this section.

18. ASSIGNMENT

The Vendor shall not assign the performance of this Agreement, nor any part thereof, nor any monies due hereunder, without prior written consent of the City. This Agreement shall be binding on, and shall inure to the benefit of, the parties to it and their respective heirs, legal representatives, successors and assigns. Upon termination of the Agreement, Vendor's sole compensation shall be payment for actual Products received.

19. SEVERABILITY

If any provision of this Agreement is held invalid or unenforceable by any court of final jurisdiction, it is the intent of the parties that all other provisions of this Agreement be construed to remain fully valid, enforceable, and binding on the parties.

20. PROHIBITED INTEREST

No officer, or employee of the City of Temecula who has participated in the development of this Agreement or its approval shall have any financial interest, direct or indirect, in this Agreement, the proceeds thereof, the Vendor, or Vendor's subcontractors for this project, during his/her tenure or for one year thereafter. The Vendor hereby warrants and represents that no officer or employee of the City of Temecula who has participated in the development of this Agreement or its approval, has any interest, whether contractual, non-contractual, financial or otherwise, in this transaction, the proceeds thereof or in the business of the Vendor or Vendor's subcontractors on this project. Vendor further agrees to notify the City in the event any such interest is discovered whether or not such interest is prohibited by law or this Agreement.

21. ENTIRE AGREEMENT; MODIFICATION; WAIVER

This Agreement and the Agreement Documents, all of which are incorporated by reference herein, constitutes the entire agreement between the parties pertaining to the subject matter hereof and thereof and supersedes all prior and contemporaneous agreements, representations and understandings of the parties, whether oral or written. No supplement, modification or amendment of this Agreement or the Agreement Documents shall be binding unless executed in writing by all the parties. No waiver of any of the provisions of this Agreement or the Agreement Documents shall be deemed, or shall constitute, a waiver of any other provision, whether or not similar, nor shall any waiver constitute a continuing waiver. No waiver shall be binding unless executed in writing by the party making the waiver.

22. NOTICES

Any notices which either party may desire to give to the other party under this Agreement must be in writing and may be given either by (i) personal service, (ii) delivery by a reputable document delivery service, such as but not limited to, Federal Express, that provides a receipt showing date and time of delivery, or (iii) mailing in the United States Mail, certified mail, postage prepaid, return receipt requested, addressed to the address of the party as set forth below or at any other address as that party may later designate by Notice. Notice shall be effective upon delivery to the addresses specified below or on the third business day following deposit with the document delivery service or United States Mail as provided above.

Mailing Address: City of Temecula
Attn: City Manager
41000 Main Street
Temecula, CA 92590

To Consultant: California Electrical Supply
Attention: Jamie K. Moir
1011 Bay Blvd
Chula Vista, CA 91911

23. EFFECT OF HEADINGS

The subject headings of the sections and subsections of this Agreement are included for convenience only and shall not affect or be considered in the construction or interpretation of any of its provisions.

24. GOVERNING LAW AND VENUE

This Agreement shall be construed in accordance with, and governed by, the laws of the State of California as applied to contracts that are executed and performed entirely in California. The City and Vendor understand and agree that the laws of the State of California shall govern the rights, obligations, duties, and liabilities of the parties to this Agreement and also govern the interpretation of this Agreement. Any litigation concerning this Agreement shall take place in the municipal, superior, or federal district court with geographic jurisdiction over the City of Temecula. In the event such litigation is filed by one party against the other to enforce its rights under this Agreement, the prevailing party, as determined by the court's judgment, shall be entitled to reasonable attorney fees and litigation expenses for the relief granted.

25. AUTHORITY TO EXECUTE THIS AGREEMENT

The person or persons executing this Agreement on behalf of the Vendor warrants and represents that he or she has the authority to execute this Agreement on behalf of the Vendor and has the authority to bind the Vendor to the performance of its obligation hereunder. The City Manager is authorized to enter into an amendment on behalf of the City to make the following non-substantive modifications to the agreement: (a) name changes; (b) extension of time; (c) non-monetary changes in scope of work; (d) agreement termination.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed the day and year first above written.

CITY OF TEMECULA

CALIFORNIA ELECTRICAL SUPPLY

(Two Signatures of corporate officers required unless corporate documents authorize only one person to sign the agreement on behalf of the corporation.)

By: _____
Aaron Adams, City Manager

By: _____


ATTEST:

By: _____
Randi Johl, City Clerk


By: _____


APPROVED AS TO FORM:

By: _____
Peter M. Thorson, City Attorney

VENDOR

California Electrical Supply
Jamie K. Moir
1011 Bay Blvd
Chula Vista, CA 91911
619-427-2370
J_moir@cescv.com

PM Initials: 
Date: 5/6/19

[Two corporate signatures of Vendor required if a corporation]

CALIFORNIA CERTIFICATE OF ACKNOWLEDGMENT

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California)

County of San Diego)

On May 1, 2019 before me, Cheryl A. Close, Notary Public,
(here insert name and title of the officer)

personally appeared Steven Kyle Johnson and Kevin Wylie Huffman

who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true and correct.

WITNESS my hand and official seal.

Signature

Cheryl A. Close



(Seal)

Optional Information

Although the information in this section is not required by law, it could prevent fraudulent removal and reattachment of this acknowledgment to an unauthorized document and may prove useful to persons relying on the attached document.

Description of Attached Document

The preceding Certificate of Acknowledgment is attached to a document titled/for the purpose of _____

containing _____ pages, and dated _____

The signer(s) capacity or authority is/are as:

- ☐ Individual(s)
☐ Attorney-in-Fact
☐ Corporate Officer(s) _____
Title(s)

- ☐ Guardian/Conservator
☐ Partner - Limited/General
☐ Trustee(s)
☐ Other: _____

representing: _____
Name(s) of Person(s) or Entity(ies) Signer is Representing

Additional Information

Method of Signer Identification

Proved to me on the basis of satisfactory evidence:

- ☐ form(s) of identification ☐ credible witness(es)

Notarial event is detailed in notary journal on:

Page # _____ Entry # _____

Notary contact: _____

Other

- ☐ Additional Signer(s) ☐ Signer(s) Thumbprint(s)

☐ _____

EXHIBIT A

DESCRIPTION OF PRODUCTS AND SERVICES

Vendor recognizes and agrees that this Agreement is for the purpose of establishing a contractual relationship between the **City of Temecula** and the Vendor, for the purchase of goods or services. The procedure for ordering goods or requesting services is set forth as follows:

1. The City Manager or his designee shall submit to Vendor a written "Request for Order/Services". The Request for Order/Services shall include a description of the items to be purchased or the services to be completed, the time for delivery or completion of the services, and the plans and specifications for goods and equipment, if any.

2. Within five (5) business days of the date of the Request for Order/Services, Vendor shall respond in writing to the Request for Order/Services and advise the City Manager or his designee whether the goods are available or services can be performed, along with the cost and estimated delivery or start of services.

3. Upon acceptance of the Vendor's response by the City Manager or his designee the Vendor shall proceed with the order or begin services. The acceptance of the goods and/or performance of the services shall be pursuant to the terms of this Agreement.

- **Current by GE LightGrid Outdoor Wireless Control System 3.0 Node part number ELMW1A8UBXXXAD or equivalent unit compatible with NEMA 7 Pin Socket and GE Evolve Roadway Lighting Fixtures noted in Exhibit D of RFQ No.43**
- **Nodes shall be at a unit cost of \$92 each plus 8.75% sales tax. The per unit price is inclusive of all shipping, handling, and delivery charges. Payment shall be based upon actual quantity of units ordered and received by the City.**
- **Related software licensing, training, and data charges shall be per separate agreement.**

EXHIBIT B

- **California Electrical Supply Quote Dated 3/29/2019 (Rev Date)**
- **California Electrical Supply and Current by GE Response to RFQ No. 43 Dated 3/15/2019**

CALIFORNIA ELECTRIC SUPPLY - CHULA VISTA
1011 BAY BLVD.

CHULA VISTA CA 91911 USA
TEL: (619)427-2370 FAX: (619)427-5416
CONTACT: JAMIE MOIR

QUOTE FOR: COD ACCOUNT
ACCT: KY-00002 COD ACCOUNT

SHIP TO: CITY OF TEMECULA

WIRELESS ROADWAY
WILL CALL
CHULA VISTA, CA 91911
TEL:

QUOTATION			PAGE 1
QUOTE # 1065545	DATE 03/28/2019	REV # 3	REV DATE 03/29/2019
QUOTE EXPIRES 04/27/2019		PREPARED BY JKM	
SLS 1440		INSL 1000	
FOB SHIPPING POINT		FREIGHT PREPAID	

CUST PO # WIRELESS ROADWAY
JOB NAME

LN	QTY	PRODUCT CODE	DESCRIPTION	PRICE	PER	EXT AMT
01	7500	GELTG ELWM1A8UBXXXXAD	CELLULAR NODE	92.00	E	690000.00
02	1	GELTG ELWS10 SOFTWARE	LICENSE	17717.00	E	17717.00
03	*	GE SERVICES-PREPAID - 10 YEARS				
04	10	GELTG ELWEHXX12-HOSTING	SERVICE	0.00	E	0.00
05	10	GELTG ELWEHXX12S-CELLULAR	DATA SERVICE FOR STAR	0.00	E	0.00
06	10	GELTG ELWS20-SOFTWARE	MAINTENANCE SERVICE	0.00	E	0.00
07	10	GELTG ELWENMS-NETWORK	MANAGEMENT SERVICE	0.00	E	0.00
08	1	LOT SERVICES PREPAID		448384.00	E	448384.00
09	*	SERVICES TO BE PAID IN 10 ANNUAL INSTALLMENTS OF				
10	*	\$48,761.76 INCLUDING TAX				
11	*	INITIAL PAYMENT DUE WITH RECEIPT OF ORDER				
12	*	SUBSEQUENT PAYMENTS WILL BE DUE ANNUALY ON THE				
13	*	ANNIVERSARY DATE OF THE INITIAL ORDER				
14	*	GE SERVICES-ADD ON				
15	1	GELTG ELWETR-ADD'L REMOTE	TRAINING (1 HOUR)	0.00	E	0.00
16	*	OPTIONAL ADDER - \$1,025.00				
17	1	GELTG ELWEIS-SOFTWARE	MOD PER SPECIFICATIONS	0.00	E	0.00
18	1	GELTG ELWEXX-TRAINING	AT LOCATION PER OCCASION	2551.00	E	2551.00
19	*	PRICING BASED ON QUANTITIES SHOWN				
20	*					
21	*	LEAD TIME 8 - 10 WEEKS AFTER APPROVED SUBMITTALS				

MDSE: 1158652.00 *
TAX: 101382.05

TOTAL: 1260034.05 **

PLEASE NOTE: This is not an offer to contract, but merely a quotation of current prices for your convenience and information. Orders based on this quotation are subject to your acceptance of the terms and conditions located at sales.our-terms.com, which we may change from time to time without prior notice. We make no representation with respect to compliance with job specifications.

LightGrid™ Node

Outdoor Wireless Control System 3.0



Description

LightGrid™ Outdoor Wireless Control System from GE allows remote monitoring and control, utility-grade energy measurement and GPS mapping of streetlights.

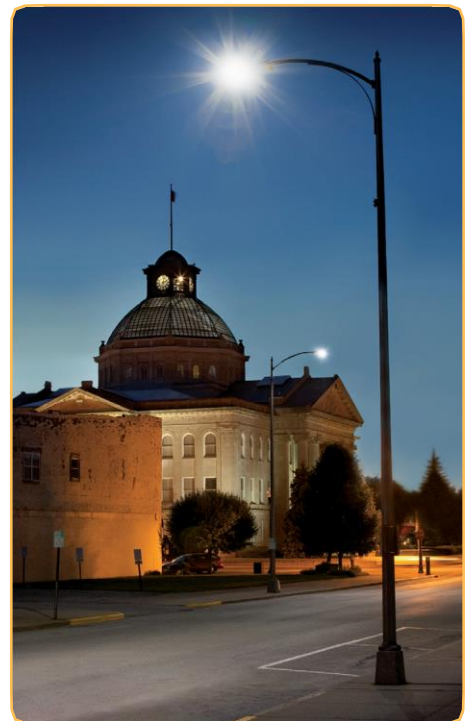
Applications

- Street Lighting
- Area Lighting



Product Features

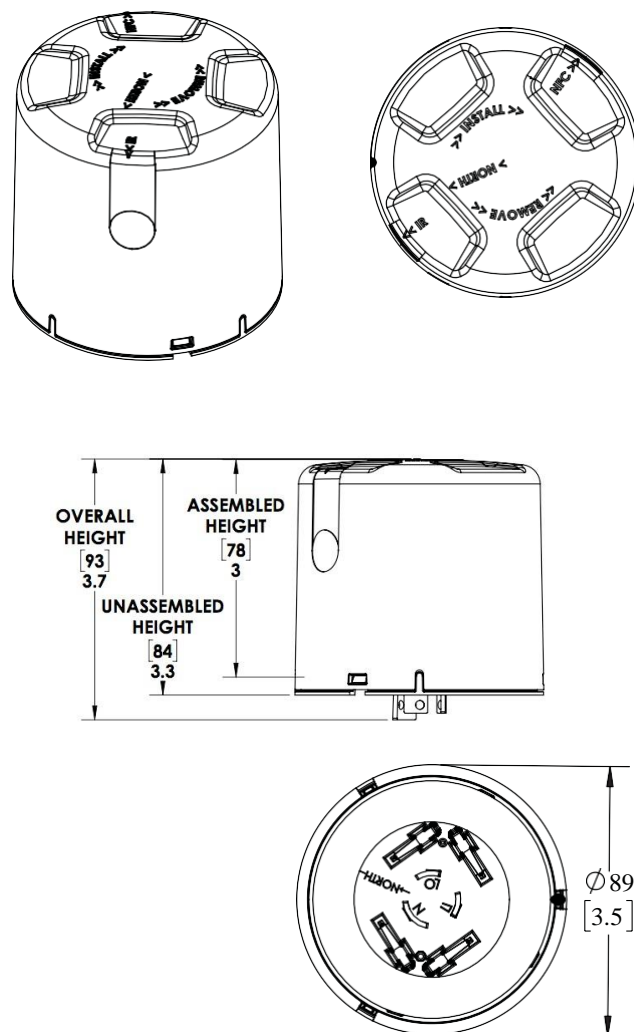
- Cellular Communication Technology with 4G based networking
- Node with direct connection to hosting service
- Integrated GPS in Each Node for Real Time Asset Reporting
- DALI Interface for Asset Management and Dimming
- Inrush Current Limiting Circuit
- Utility Grade Measurement up to 0.5% Accuracy
- Industry Standard Secure Encrypted Communications
- Energy Consumption Reporting up to as Frequent as 15 Minutes
- Full Autonomous Photocell Functionality (No wireless network required)
- Node Programable for Autonomous Time Based Schedules
- Flexible Output Level Control through Control Software
- Real Time Measurement and Storage of Voltage, Current, Wattage, Power Factor, and Hours of Operation
- Integrated Tilt/impact sensor (optional)



Product Specifications

- Input Voltage: 120-480V
- Wireless networks: 4G Cellular (LTE) Cat-M/1 Bands 1,2,3,4,12,13,25,28 w/ 2G fallback
- Wireless network peak data rate: 275kb/S
- Carrier Certifications: AT&T, Verizon, Bell, Telus, PTCRB. (others pending)
- Digital emissions: FCC part 15B (US), ICES-005 (Ca), class B
- RF certifications: FCC ID: XMR201707BG96
- IC ID: 10224A-201707BG96
- EMI: Complies with FCC CFR 47 15.208, 15.209 and ICES-005 (B) /NMB-005 (B)
- Dimming: Automatically Detected 0-10V/DALI (GE Patent)
- Operating Temperature: -40° to +50°C
- Surge: ANSI C136.2 2015, 10KV/5KA Combination Wave
- Power Consumption: 1.5W 120V, 2W 277-347V, 2.4W 480V
- Photocell: Complies with ANSI C136.10-2006
- GPS Accuracy: +/- 3m in Clear Open Sky
- IR(optical) Output for Utility Meter Calibration Validation
- Digital In/Out and Analog Inputs
- Configurable Serial In/Out Digital Communication
- Supports up to 1500VA load
- Inrush Current Limiting at Turn On
- Security: AES Encryption and Certificate Based Authentication
- Utility Grade Energy Measurement: Complies with Relevant Sections of ANSI C12.20
- Ingress Protection: Class IP65
- Complies with ANSI C136.41-2013 (ANSI Dimming)
- Weight: 0.52 lbs
- Warranty: 5 Years Standard, 10 Year Extended Available

Product Dimensions



Ordering Number Logic

ID	VOLTAGE	CONFIGURATION	METERING TYPE	METERING PRECISION	COMMISSIONING	MAXIMUM LOAD	NETWORK	LOCATION OPTIONS	DIMMING	OPTIONS
ELWM	1 = 120-480	A = ANSI socket (External node)	8 = Load + Node	U = 0.5% Utility Grade	B = GPS	X = 1500VA	X = LTE	XX = Default	AD = 0-10V/DALI	None = Default

Examples:

ELWM1A8UBXXXXAD:120-480V,ANSISocket,LoadandNodeMetering,UtilityGrade,GPS Commissioning,1500WLoad,LTENetwork,DALI/0-10VDimming

current
powered by GE

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www.currentbyge.com | CTRLzzz (Rev 11/1/18)



March 15, 2019

Executive Summary / Qualification Letter

To: **City of Temecula**

Project: RFP No. 43 Wireless Roadway Lighting Control System Project

**Re: Qualification and Experience Statement
GE Light Grid Wireless Controls Products**

Thank you for the opportunity to participate on the request for proposal for Wireless Roadway Lighting Controls System. As a major supplier and technology leader to the outdoor lighting market, Current powered by GE is ready to support The City of Temecula for this very important project with our GE Light Grid Wireless Control System.

Building on a reputation of excellence that dates to Edison's first electric light, GE brings a depth and breadth of expertise to every Evolve LED lighting fixture and Wireless Controls System that's unsurpassed in the industry. In the late 1800's, GE introduced the first electric streetlight. **In 1962 GE introduced the first visible LED.** These along with many other breakthroughs have resulted in New Technology and Evolve LED fixtures **and Controls**. Municipals and Utilities of every size trust GE for their LED lighting **and Wireless Controls solutions**. They share an appreciation for the value of partnering with a company known for innovation and unwavering dependability throughout the years.

While LED technology and Wireless Controls are relatively new to many manufacturers, it is not new to GE, who has been involved with LED and Controls in one form or another since its inception in 1962. GE has years of experience with LED and Controls, giving us a one of the largest installed base of LED systems **and Wireless Controls** in the US and Canada **(See Attached for References)**. As a DOE "Quality Advocate," GE employs its rigorous Six Sigma and "design for reliability" process to provide the highest reliability and quality standards our many customers have come to depend on.

And finally, but most importantly, the proof is in the performance of the Control System in actual environmental conditions. GE is prepared to support the entire project requirements. We have tested products in the most rigorous environments that are wet, salty and hot which present a challenge to weaker lighting systems over time. The quality as described above which is built into the GE products meet those challenges along with the environmental conditions of the City of Temecula. The evidence of our performance is in our years of success in the utility and municipality markets as well as in our warranty and reputation.

The final key to a successful streetlight replacement program is providing **local resources and support**. Current powered by GE local representation is **Del Sol Resources in Carlsbad CA HI** and will provide a convenient local avenue for local procurement, training and support as these Controls are purchased, installed, and maintained.





Current Powered by GE and Del Sol would very much like the opportunity to offer product for consideration to the City and County of Honolulu. We look forward to your review of our proposal and look forward to the opportunity to meet with your agency.

Best Regards,

*Pete Porte GELS Western Region Manager
35 years' experience in the lighting industry
14 years GELS Western Region Manager
Office in Arizona*

Major Project Experience

***10,000-unit Wireless Controls City of San Diego
11,000-unit Wireless Controls City of Corona CA
8000-unit Wireless Controls City of Oceanside CA
53,000 Unit Wireless Controls City & County of Honolulu
14,000-unit Wireless Controls Hawaii Dept. of Transportation***



Groundbreaking Outdoor Wireless Control System for Street, Roadway and Area Lights

- Remote monitoring and control (On/Off/Dim/Schedules) of all fixtures through a Web-enabled central management system
- Utility grade energy measurement per pole
- Maintenance optimization – Day Burner/Dark Night Alerts & Reports by Location
- Asset Management



GE LightGrid: Management and Control of Assets

Asset Management

Accountability

Reduced Maintenance Costs

Optimize Maintenance

Fault Alerts &
Response

Delight Citizens



Remote Monitor

View and Awe!

Showcase Model City

LightGr
id



Pay Per Use

Time of Use Tariff

Save Money



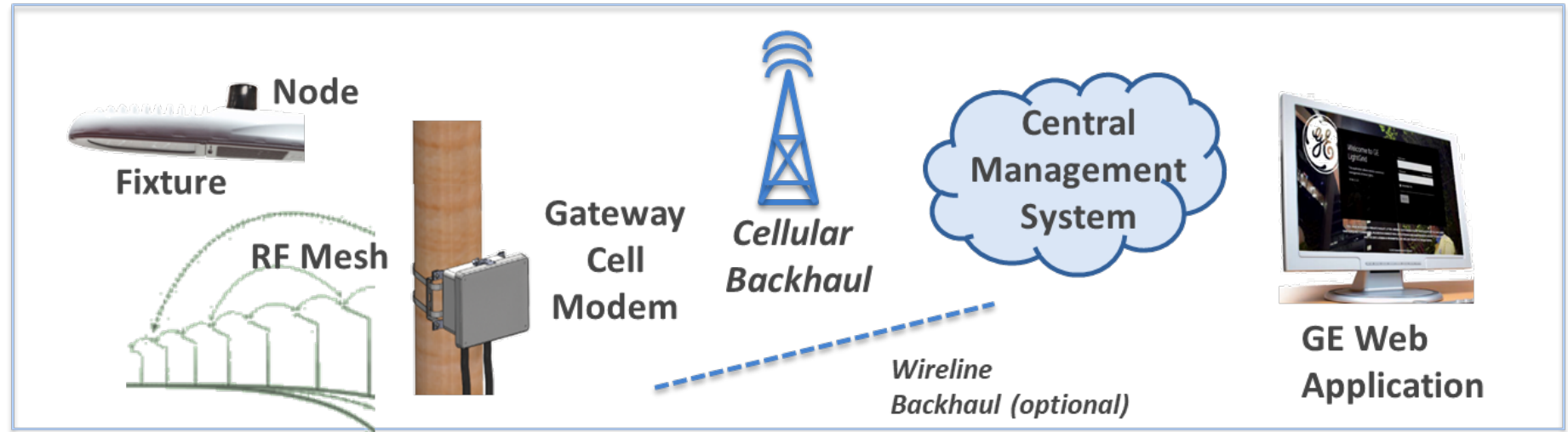
Control Output

On/Off/Dim

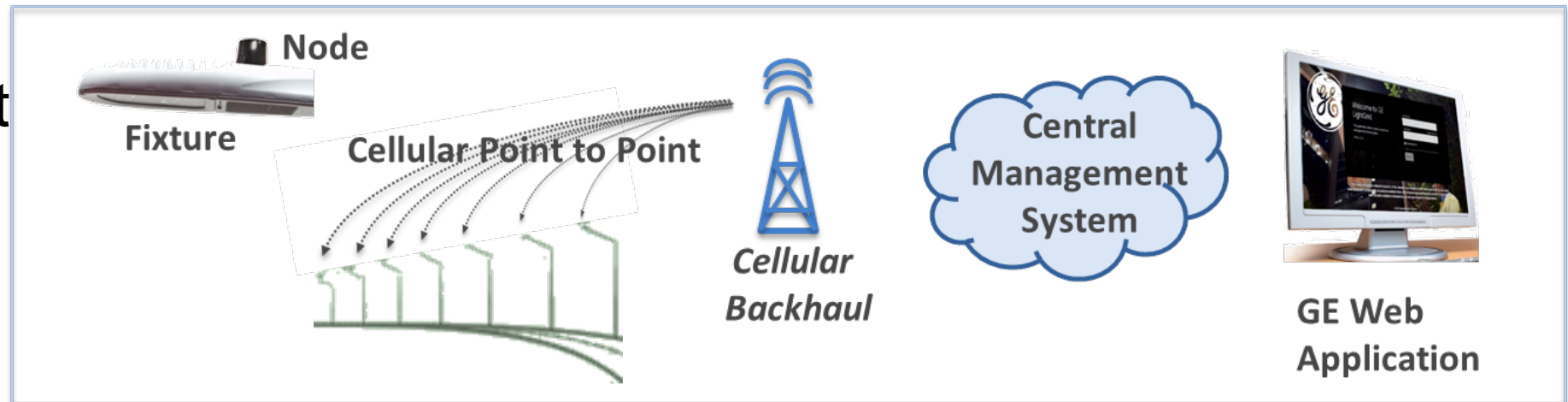
Save Energy

Architecture: RF Mesh and Cat-M Point to Point

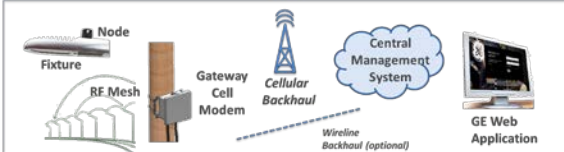
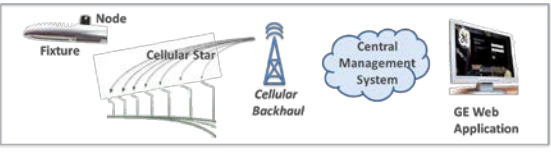
RF Mesh



Cat-M Point to Point



System Features

	2.1	3.0
Communication technology	ISM Mesh	CAT-M cellular
		
Gateway	Yes	No
Connectivity of nodes	Mesh	Point to Point
Individual node connection to CMS	Through Neighbors + GW	Direct Path
CAT-M cellular coverage at every control point	Not Required	Required
Installations with large distances	Not Suitable	Suitable
Wireline backhaul option	Available	Not Available
Data to reach cloud / Commands to reach node	Multi-Step Path	Single-Step Path
Network management	ISM + Cellular	Cellular
Installation / Commissioning / Connection	GW + Nodes	Nodes
Trouble shooting and Maintenance	More complex	Simpler
Configuration / OTA	Multi-Step Path	Single-Step Path
Total cost at low density - roadways, parking lot	Higher	Lower
Total cost at dense urban environment	Lower	Higher

<< connection

<< Service, Tu

<< >1000' betw
points

<< LG3 potenti

<< Higher upti

<< Node connec
and fast connec

<< Faster respo
issues

<< GW and neig
rate

Control Node Features

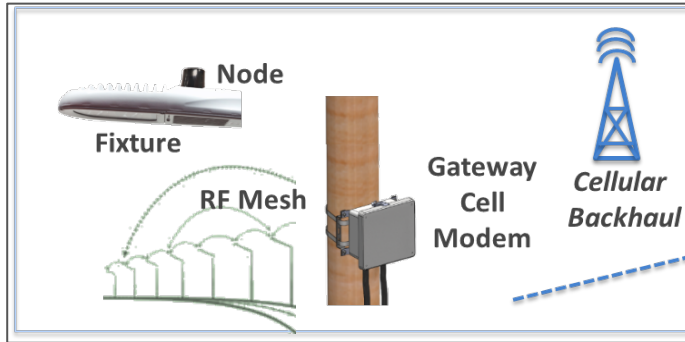
	2.1	3.0
Communication technology	ISM Mesh	CAT-M cellular
Input Voltage	120 - 480V Universal	120 - 480V Universal
Surge Rating (node only)	10kV/5kA	10kV/5kA
Asset Management	GPS + DALI(driver)	GPS + DALI(driver)
Dimming	0-10V/DALI Autodetect	0-10V/DALI Autodetect
Maximum Load	1500VA	1500VA
Inrush Current Limitation	Inrush Limiting Circuit	Inrush Limiting Circuit
Tilt sensor	no	Built in
Utility Grade Metering	0.5%	0.5%
GPS	Yes	Yes
IR Communication for Metering	Yes	Yes
Serial I/O and Analog Input (ie. Sensors)*	Yes	Yes
IP Rating	IP66	IP66

*Based on sensor type software upgrade may be needed



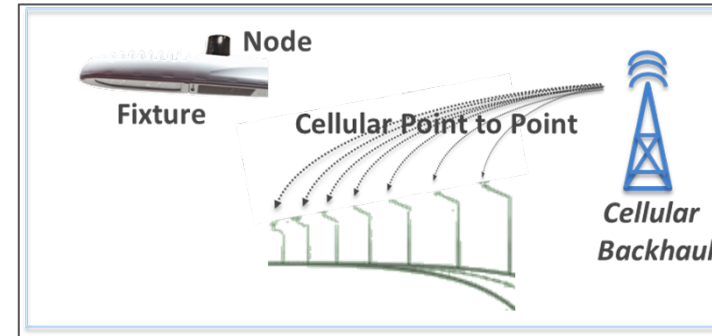
LightGrid Cellular Advantage

LG2.1 MESH



LG3 Cat-M

July 2019



Customer Benefits: Features + Initial Cost + Operation

✓ Lower installation cost (no gateways)

- ✓ Fast connection/command time
- ✓ Pole down detection(tilt sensor)
- ✓ Last gasp(power loss notification)
- ✓ EZ Pass compatible

- ✓ Higher reliability in connectivity
- ✓ Lower latency communication
- ✓ Faster recovery after power interruptions
- ✓ Simpler network, faster OTA, trouble shooting

LG3 Cat-M

March 15, 2019

GE Proposal Index
City of Temecula RFQ No. 43
Wireless roadway Lighting Control System

To: **City of Temecula**

Thank you for the opportunity to participate on the request for proposal Wireless Roadway Lighting Controls System. As a major supplier and technology leader to the outdoor lighting market, Current powered by GE is ready to support The City of Temecula for this very important project with our GE Light Grid Wireless Control System.

GE has proposed our “Cellular-Star/Cat M” version of our product offering.
Proposal includes:

- Individual Nodes (one for each fixture)

10 year prepaid for:

- Initial Software License
- Cloud Hosted Website service
- Cellular Data Service
- Software Maintenance Service
- Network Management Service

Should the City wish to purchase future/Hardware Nodes for expansion of the system - **there is no further Equipment required to expand the system beyond the Cellular Node.**

Please find enclosed

- GE Executive Qualification statement letter.
- GE Installed Project References
- SDG&E Letter confirming GE Light Grid Node as Approved Meter
- GE Pricing Proposal
- GE Light Grid Wireless Controls System Outline

Lead-times for GE Light Grid Controls System listed above will follow these Guidelines:

8-12 weeks

Lead-times are based a start date of a factory accepted receipt of a released for production purchase order.





Freight Terms; Prepaid and allow Freight is included in the proposal are as noted on GE quotation

GE will support the project via our **local** representation is **Del Sol Resources in Carlsbad CA** and will provide a convenient local avenue for local procurement, training and support as these fixtures are purchased, installed, and maintained.

GE and Del Sol would very much like the opportunity to offer product for consideration to the City of Temecula. We look forward to your review of our proposal and look forward to the opportunity to meet with your agency.

Best Regards,

Pete Porte GELS Western Region Manager



March 7, 2019

The following are US and Canada Utilities /Municipalities that have tested, approved and installed GE LED and Induction Cobra Head product and GE Light Grid Wireless Controls

City of San Diego CA
9601 Ridge haven Court Suite 310
San Diego CA 99123
Lorie Cosio-Azar
Ph.# 858-627-3352
35,000 Street Lighting Units (Induction)
10,000 LED Street Lighting Units
10,000 LED Post Top Type Fixture/ Cobra Head LED Street Light Fixtures
10,000 GE Light Grid Wireless Controls
600 additional Induction Cobra Head include GE Light Grid Wireless Controls

City of Oceanside
4927 Oceanside Blvd
Oceanside CA 92056
760-435-5089
Kiel Koger
hkkoger@ci.oceanside.ca.us
8000 LED Street Lighting Cobra Head Retrofit
8000 GE Light Grid Wireless Controls

City & County of Honolulu
650 S. King Street
Honolulu HI 96813
Attn: Allyn Lee
Ph 808-768-8428
Alee2@honolulu.gov
53,000 LED Street Lights
53,000 GE Light Grid Wireless Control Nodes

City of Corona
755 Public Safety Way
Corona CA 92880
11,000 GE Light Grid Wireless Nodes/Controls
8800 LED Street Light Cobra Head Replacement
Tracey Martin – Utilities Project Manager
951-279-3709
Tracy.martin@ci.corona.ca.us

Kauai Island Utility Corp





Attn: Michael V. Yamane, P.E.
Chief of Operations
Kauai Island Utility Cooperative
Ph. 808-246-8208
3760 LED Street Lighting Cobra Head Retrofit
3760 GE Light Grid Wireless Controls

Hawaii Dept. of Transportation
14,000 LED Street Lighting Cobra Head Retrofit
14,000 GE Light Grid Wireless Controls
(installed & operated by Johnson Controls)

City of Montreal Canada
Montreal, Quebec
Canada
85,000 LED Street Lights (3000K)
81,000 GE Light Grid Wireless Controls

City of Las Vegas
200 Ronemus Dr
Las Vegas NV 89128
Niel Rohleder
702-229-6331
42,000 Street Lighting Units – LED Cobra Heads
13,000 units include Adaptive Controls Ready Fixtures for GE Light Grid Wireless Controls

City of Oakland CA
Electrical Services Division
7101 Edgewater Dr Bldg. 2
Oakland CA 94621
Attn: Paul Chan
Ph.# 510-867-5386
30,000 Street Lighting units LED Cobra Heads (all units include Adaptive Controls Ready Fixtures for GE Light Grid Wireless Controls)

Southern Calif. Edison (SCE)
Santa Ana CA
GE LED Street Light / Cobra Heads
10,000 Units Fontana
7200 Units City of Garden Grove
3000 Units City of Walnut
4600 Units City of Tulare
3000 Units City of Rosemead





3000 Units City of Covina
893 Units City of La Palma

City of Phoenix
200 West Washington Street 5th Floor
Phoenix AZ 85003
602-262-4970
Jason Fernandez
1500+ LED Cobra heads and LED Area Lights

City of Anaheim
201 South Anaheim Blvd 7th Floor
Anaheim CA 92805
~6000 LED Street Lights/Cobra Heads and Area Light Style Street Lights
GC (Cal) Scholl
714-765-5204

Arizona Public Service (APS)
2121 Cheryl Dr Bldg. A
Phoenix AZ 85072
Attn: Kari Spire
Ph 602-371-6709
Kari.spire@aps.com
~5000 LED Street Lights

City of Fontana CA - via Southern California Edison
~700 LED Safety Light Cobra Head replacements
Attn: Darrin Huggins
Supervising Traffic Systems Specialist/ Engineering
Ph: (909) 350-6525
dhuggins@fontana.org

Manitoba Hydro +37,000 units (4000k)
360 Portage Ave
Winnipeg, MBR3C Canada
Sam Fay
(+1)204-360-7766
sfay@hydro.mb.ca

City of Calgary Canada - 30,000 units





Alberta Trade Center
315 10 Avenue SE
Alberta Canada T2G OW2
Mike Gray
(+1)403-852-8644
Michael.gray@calgary.ca City of Oceanside CA

City of Pleasanton CA
200 Old Bernal Ave
Pleasanton CA 94566
Operation Services Division
Attn: Kathleen Yurachek
Ph.# 925-931-5505
6,000 Street Lighting units LED Cobra Heads

City of Lodi CA
310 West Elm St
Lodi CA 95241
5300 Street Lighting units LED Cobra Heads

City of Fairbanks
Fairbanks Alaska
Attn: Jerry Colp
907-451-2247
1800 LED Street Lighting Cobra Heads

Municipal Light & Power
1200 East 1st Avenue
Anchorage, Alaska 99501
Contact: Gary Agron, Director of Engineering
Phone: 907 854-2777
AgronGA@muni.org
4000 LED roadway luminaires with Light Grid Controls

Tinley Park, IL
Contact: John Urbanski
Phone 708 444-5594
Jurbanski@tinleypark.org
4000 GE Light Grid Wireless Controls

City of Oakville
Oakville, Ontario Canada
10,000 GE Light Grid Wireless Controls





City of Oakville via El-Con Construction

Currently 10,000 nodes with expansion by another ~ 5000 nodes this year. Installed late 2016 and ongoing in 2017

Contact:

Mike Henderson

Vice-President and General Manager

2231 Wyecroft Rd

Oakville, ON

L6L 5L7

905-825-6371 (Direct)

289-834-3528 (Cell)

mhenderson@el-con.ca



Test Approval Notice

120-277 Volt Wireless Outdoor Lighting Controller Node

June 26, 2018

To:
Mark Wilbur
Principal Solutions Architect - GE Wireless Controls
1975 Noble Road MS 335C-1265D
Cleveland Ohio 44112
O: (216) 266 3769
C: (216) 533 5144
Email: mark.wilbur2@ge.com

SDG&E approves the below Wireless Lighting Controller Node manufactured and delivered by GE after completing Accuracy Testing in the shop and Field Performance Testing in the Meter Farm on the 04.00.00.00000 Firmware:

GE Cat Number:	ELWN0A8UBXXXXAD (GE)
RFID:	PUU 90003
Hardware Version:	GE2020-6734-V2
Firmware Version:	4.00.00.00000

Endpoint ID's Tested:

8C:C6:61:21:0C:7C:04:CC (WECO)
8C:C6:61:21:0C:7C:05:E1 (Run-up Board)

8C:C6:61:21:0C:7C:05:DA (MF Test)
8C:C6:61:21:0C:C8:01:84 (PF/THD)

Interval Length: 15 Minute

Comments on functionality testing:

Overall, the lighting controller nodes measured power within 0.5% accuracy when tested at various energy consumption levels and over extended periods of time. In addition, the Light Grid system provided 15-minute interval data (Register Reads) within acceptable tolerances for interval billing applications at SDG&E. It was agreed upon SDG&E and the vendors that register reads will be time stamped on a 15-minute basis instead of the actual kWh usage used in that interval, and SDG&E's billing application will determine the delta for interval usage. Furthermore, the units also operate within acceptable ranges of power factor and Total Harmonic Distortion (THD) when dimming the fixtures to 50% of rated operation. Units have been FCC and UL certified as noted below:



E350111-20140613-
Certificate of Compliance



GE_ASF_FCC_31040
7CERTCAB(PUU9000)

UL:

FCC:

It is important to note that modified firmware versions or hardware configurations were not tested and would not be considered acceptable until testing is completed. Units operated on the SDG&E grid should not operate below .8 power factor or with greater than 5% THD on Voltage or 20% THD on current waveforms during dimming operations.

Regards,

Noel Umali
Electric Metering Engineering
San Diego Gas & Electric
Ph: 619-676-7613
Email: numali2@semprautilities.com

Cc: Chippy Impreso, Jerry Stewart

Schedule of Test Completion

WECO Demand Accuracy Test:

Dated: 6/05/2018

By: Noel Umali

Meter Farm Energy Test:

Dated: 6/12/2018

By: Noel Umali

Run-up Rack Energy Test:

Dated: 6/09/2018

By: Noel Umali

FLUKE Power Analyzer Test:

Dated: 06/13/2018

By: Noel Umali

Results attached



WECO Board
Accuracy Test.pdf



Meter Farm Test -
GE ASL.pdf



Run-Up Board Test
- GE.pdf



Fluke Power Quality
Test - GE.pdf