

MEMORANDUM

TO: MAYOR AND CITY COMMISSION

FROM: CITY ATTORNEY'S OFFICE

DATE: March 21, 2016

RE: **Fourth Amendment to the Terms of Agreement to the Purchase Order for Advanced Metering Infrastructure with Sensus USA, Inc.**

Attached hereto for your consideration is a proposed Fourth Amendment to the Terms and Conditions to the purchase order with Sensus USA, Inc. (Sensus) for Advanced Metering Infrastructure (AMI). The purpose of this Amendment is to provide software and hardware services to connect Lakeland Water Utilities to the smart grid system.

The City Commission approved the Terms of Agreement (Agreement) on September 16, 2010, and subsequently modified the Agreement in accordance with the First Amendment to the Agreement on April 9, 2012, a Second Amendment to the Agreement on March 17, 2014, and the Third Amendment to the Agreement on February 25, 2015 all collectively known as the Prior Amendments. The Fourth Amendment to the Agreement is for the provision of hardware and software for the Water Utilities Department whereas the Prior Amendments provided for Lakeland Electric. This includes licenses that allow the water meters to communicate with the SmartGrid system. Many of the terms and conditions from the Agreement and the Prior Amendments were specific to electric meters and did not apply to water meters. These have been updated in the Fourth Amendment to reflect those items specifically related to water meters and their unique functionality in SmartGrid.

Under the Fourth Amendment to the Agreement, Sensus shall perform a study to assure that Lakeland Water Utilities will have the bandwidth needed to utilize the existing AMI system. All equipment provided by Sensus for Water Utilities will be subjected to a rigorous Water Acceptance Test. The Water AMI system shall include, along with other requirements, the ability to communicate bidirectionally, provide for on-demand reads, and transmit data on a daily basis. For customers that do not opt out of AMI, the City's billings will be accurate and transparent.

Sensus has provided a detailed price proposal which includes a 3% maximum escalator per year after the fifth year as not to require future amendments for price increases over the five (5) year life of the project, which is expected to cost \$1.5 million per year for the five (5) year project life or \$7.5 million total. The Smart

Grid Installation project is currently funded in Water Utilities 10 year Capital Improvement Plan.

It is recommended that the City Commission approve the Fourth Amendment to the Terms and Conditions to the purchase order with Sensus, and authorize the appropriate City Officials' execution of said document.

attachment

**FOURTH AMENDMENT TO THE
TERMS OF AGREEMENT AS ATTACHED TO PURCHASE ORDER FOR
ADVANCED METERING INFRASTRUCTURE
(*Fourth Amendment*)**

This Fourth Amendment is made this ____ day of _____ 2016 ("Effective Date"), by and between SENSUS USA, INC., a corporation of the State of Delaware with offices at 8601 Six Forks Road, Suite 700, Raleigh, North Carolina 27615 ("Sensus"), and CITY OF LAKELAND, FLORIDA, a municipality organized and existing in accordance with the laws of the State of Florida, located at 228 S. Massachusetts Ave., Lakeland, Florida 33801 ("Lakeland").

WHEREAS, Sensus and Lakeland entered into a Terms of Agreement as Attached to Purchase Order for Advanced Metering Infrastructure on September 16, 2010 ("Agreement") and subsequently modified said Agreement in accordance with a First Amendment to the Agreement on April 9, 2012, a Second Amendment to the Agreement on March 17, 2014, and a Third Amendment to the Agreement on February 25, 2015 (together, the "Prior Amendments"); and

WHEREAS, Lakeland Water Utilities operates under the City of Lakeland, the latter of which operates a fully deployed FlexNet AMI System for all electric meters in the Service Territory; and

WHEREAS, Lakeland has informed Sensus of its desire to read approximately 65,000 water meters located within Lakeland's Service Territory using Lakeland's existing FlexNet AMI System; and

WHEREAS the parties desire to amend the Agreement and Prior Amendments according to the terms and conditions in this Fourth Amendment; and

NOW THEREFORE, in consideration of the mutual covenants, terms, and conditions set forth in this Fourth Amendment, the parties hereto mutually covenant and agree to amend the Agreement as follows:

1. **Defined Terms.** Any terms used in this Fourth Amendment as defined terms, and which are not defined herein, shall have the meanings given to those terms in the Agreement and Prior Amendments.
 - a. "Water Customer" shall mean any end user of water, or any party that pays Lakeland for the consumption of water, provided such use and consumption occurs within the Service Territory.
 - b. "Water Service Territory" identifies the geographic area where Lakeland provides water services to Water Customers as of the Effective Date of this Fourth Amendment. This area is depicted in Annex C as attached hereto.
2. **Purchase of Meters, SmartPoint Modules, and RF Field Equipment.**
 - a. Lakeland shall purchase certain water meters, water SmartPoint™ modules, and RF Field Equipment (collectively, "Equipment") directly from Sensus at the prices set forth in Annex A. The pricing for Equipment is firm for the quantities listed until the second anniversary of this Fourth Amendment (the "Fourth Amendment Trigger Date"). Upon reaching the Fourth Amendment Trigger Date, Equipment pricing shall increase in accordance with the CPI, as defined in the Agreement. For clarity, annual price increases shall not exceed 3% per year over the prior year's price.
 - b. **Delivery.** Sensus shall pay for delivery of the Equipment from Sensus' or Sensus' contracted manufacturers' factory to Lakeland's warehouse. Title to, and property in, the Equipment shall pass to Lakeland upon receipt. Risk of loss of the Equipment shall also pass to Customer upon delivery.
 - c. **Warranty.** The Equipment purchased directly from Sensus is warranted as set forth in this subsection (c).
 - i. Subject to the following exceptions below in subsection (1), Sensus warrants its water metering equipment according to the terms and conditions (including all limitations and exclusions) in the Sensus G-500 warranty, available at: <http://sensus.com/TC/> (click on the "G500" link), or 1-800-METER-IT ("G-

500 Warranty"). To the extent the terms of the G-500 Warranty conflict with the terms in this Fourth Amendment, the terms of this Fourth Amendment shall control. The G-500 Warranty is hereby incorporated by reference as if fully set forth herein.

1. Exceptions to the G-500 Warranty. The parties acknowledge the following provisions contradict or expand the G-500 Warranty. The parties hereby agree to the following terms:

- a. Returns. Lakeland shall prepay freight charges for Equipment returned to Sensus in accordance with the G-500 Warranty. Sensus shall pay return freight charges for Equipment repaired or replaced pursuant to the G-500 Warranty.
- b. RMA Packaging. Lakeland shall clearly display the Sensus-generated RMA number on all external packaging of Equipment returned to Sensus.
- c. RMA Testing. In the event Lakeland returns Equipment in good faith to Sensus pursuant to the G-500 Warranty and that Equipment is later determined to not be subject to the G-500 Warranty (for example, because of an Exception or the warranty period has ended), Sensus shall not charge Lakeland for examination of the product. Nonetheless, Sensus shall have no obligation to repair or replace Equipment that is not subject to the G-500 Warranty.

ii. Limitations and Exclusions. THE WARRANTIES IN THIS SECTION 2 AND THE G-500 WARRANTY ARE THE ONLY WARRANTIES GIVEN WITH RESPECT TO THE GOODS, SOFTWARE LICENSES, AND SERVICES SOLD OR OTHERWISE PROVIDED BY SENSUS. SENSUS EXPRESSLY DISCLAIMS ANY AND ALL OTHER REPRESENTATIONS, WARRANTIES AND/OR CONDITIONS, EXPRESSED, IMPLIED, STATUTORY OR OTHERWISE, REGARDING ANY MATTER IN CONNECTION WITH THIS FOURTH AMENDMENT, INCLUDING WITHOUT LIMITATION, WARRANTIES AS TO FITNESS FOR A PARTICULAR PURPOSE, MERCHANTABILITY, NON-INFRINGEMENT AND TITLE.

3. Installation of Equipment.

a. Lakeland is responsible for the installation of the Equipment in the Service Territory, including any additional RF Field Equipment that may be required under the propagation analysis.

4. Performance Requirements and Testing.

a. Prior to Lakeland installing any Equipment, Sensus shall perform a propagation analysis in the Service Territory to verify coverage and bandwidth capabilities of the existing AMI System and to determine whether additional RF Field Equipment is necessary to support the water Equipment. Lakeland shall purchase and install any additional RF Field Equipment necessary, including any additional backhaul equipment or services for such additional RF Field Equipment, as indicated on the propagation analysis.

b. Testing. The Equipment shall be subject to the water acceptance test, set forth in Annex B to this Fourth Amendment ("Water Acceptance Test"). The Water Acceptance Test shall be completed within six (6) months after the installation of the first Equipment.

c. Performance Requirements. The Equipment sold to Lakeland shall not be subject, in any manner, to any of the performance requirements, remedies, or obligations of any type related to electric meters or electric SmartPoint modules set forth in the Agreement, including, but not limited to, those in Exhibit D of the Agreement. Nonetheless, the following provisions related to performance apply to the Equipment:

- i. General Capabilities. The Equipment shall provide the capability of viewing and exporting events in the following categories:
 1. Date / time
 2. Event type

3. Meter number (to be provided in the post event flat file format only)
4. FlexNet number.

- ii. Two-Way Communication. The water meters supplied by Sensus shall be capable of two-way communication to support features including firmware download to the FlexNet module, pinging for reads, reconfiguration, and diagnostic information (the "Two-Way Communication"). This Two-Way Communication functionality shall not be performed daily, nor shall the water meters or AMI System be required to be capable of performing the Two-Way Communications functionality on a daily basis. Rather, the water meters and AMI System shall be capable of supporting the Two-Way Communications as needed.
- iii. On Demand Reads. The water meters supplied by Sensus shall be capable of on-demand reads. Lakeland acknowledges and agrees that the on-demand features of the water meters are not as robust as those of the electric meters. By way of example only, roughly 90% of water Available Meters are likely to respond within 90 seconds. For clarity, Sensus does not promise, nor is obligated to adhere to, specific metrics for on-demand reads of water meters.
- iv. The AMI System shall deliver the data registered or stored by the meter installed at a premise at daily read intervals. The FlexNet system may deliver these readings using various transmit rates including those selected by the utility.
- v. Frequencies. The Sensus water FlexNet meters and SmartPoint Modules can operate between the following frequencies: 890 - 955 MHz.
- vi. The Sensus FlexNet module shall have the capability to deliver programmed readings from a Sensus encoder register.
- vii. The FlexNet module shall support programmable delivery options.
- viii. If programmed to read daily, the network shall be capable of requesting the specific hour for the transmission to occur.
- ix. Available Meter readings shall be accurate as compared to a manual meter reading.
- x. Provided successful binding, readings from Available Meters shall be available within 24 hours after successful installation, assuming successful integration of software systems is complete.

5. **Services.**

- a. Lakeland shall have the option to purchase Project Management and Applications Engineering Management (AEM) services (the "Project Services"), as described on Annex C, at the prices set forth on Annex A. Lakeland shall have the option to discontinue such Project Services upon providing written notice to Sensus thirty (30) days in advance.
- b. Lakeland shall utilize Software as a Service, as provided in the Second Amendment, at the prices set forth on Annex A attached to this Fourth Amendment. The Software as a Service price list in Annex A is firm for five (5) years. On the fifth (5th) anniversary of the Effective Date of this Fourth Amendment, pricing for Software as a Service shall increase in accordance with the CPI (as defined in the Agreement), not to exceed three (3%) percent over the previous year's price.
- c. Spectrum. In light of the new Water Service Territory provided under this Fourth Amendment, the parties shall work together in good faith, as necessary, to amend the spectrum Lease filed with the FCC, as described in the Third Amendment.

6. **Entire Agreement.** The Agreement, as amended by the Prior Amendments and this Fourth Amendment, constitutes and contains the entire understanding and agreement of the parties. To the extent that the provisions of this Fourth

Amendment are inconsistent with the Agreement and the Prior Amendments, the terms of this Fourth Amendment shall control. Except as expressly amended or modified in this Fourth Amendment, all other terms and conditions of the Agreement and Prior Amendments shall remain in full force and effect and this Fourth Amendment shall be binding upon the parties.

IN WITNESS WHEREOF, the parties hereto have caused this Fourth Amendment to be signed by their respective officers, authorized as of the day and year written above.

SENSUS USA INC.

By: _____

Name: _____

Title: _____

Date: _____

CITY OF LAKELAND, FLORIDA

By: _____

Name: R. Howard Wiggs

Title: Mayor

Date: _____

Attest:

By: _____
Kelly S. Koos, City Clerk

Approved as to form and correctness:

By: _____
Timothy J. McCausland, City Attorney

Annex A
Pricing

<i>DESCRIPTION</i>	<i>UNIT SELLING PRICE</i>	<i>QTY</i>	<i>EXTENDED TOTAL PRICE</i>
SaaS Fees			
Initial Start-Up Fees	\$ 12,000.00	1	\$12,000.00
Year One Fees 10K units (0 - 25K)	\$ 15,000.00	1	\$15,000.00
Year Two Fees +12K Units (0 - 25K)	\$ 19,800.00	1	\$19,800.00
Year Three Fees +12K Units (25K - 40K)	\$ 30,000.00	1	\$30,000.00
Year Four Fees +12K Units (Over 40K)	\$ 47,000.00	1	\$47,000.00
Year Five (Up to 65K)	\$ 54,500.00	1	\$54,500.00

*Costs after start up are annual costs

*Beginning on the fifth (5th) anniversary of the Effective Date of this Fourth Amendment, SaaS pricing shall escalate each year in accordance with the CPI, not to exceed 3% per year over the previous year's price.

*Costs are in addition to current Lakeland Electric SaaS costs

SmartPoint Pricing			
510M (non pit) - no coupler single port	\$ 90.00	100	\$9,000.00
510M (non pit) - no coupler dual port	\$ 105.00	300	\$31,500.00
520M (pit) - no coupler single port	\$ 98.00	37,600	\$3,684,800.00
520M (pit) - no coupler dual port	\$ 113.00	16,500	\$1,864,500.00
510M (non pit) touch coupler single port	\$ 92.00	20	\$1,840.00
510M (non pit) touch coupler dual port	\$ 107.00	20	\$2,140.00
520M(pit) touch coupler single port	\$ 100.00	5,000	\$500,000.00
520M(pit) touch coupler dual port	\$ 115.00	1,000	\$115,000.00

*Beginning on the Fourth Amendment Trigger Date, Endpoint Pricing to escalate a maximum of 3% per year base on the CPI

*Endpoint quantities are estimated

Base Stations			
M400	\$ 23,000.00	1	\$23,000.00

*Includes cabling and antenna

*Customer install

Delivery Services			
Project Management (Monthly)			
Quarter Time – Years 1-5	\$ 7,200.00	12	\$86,400.00

*Price includes PM and AEM resources. Sensus and Lakeland agree to increase rates in quarterly increments if project load indicates such an increase is needed.

Annex B Water Acceptance Test

Periodic testing will take place with the intent to provide incremental acceptance of installed meters in a structured format. During testing all meters installed after the last system test up until the test date will be subject to the acceptance testing.

Lakeland shall send written notice to Sensus once the Test Equipment and the anticipated next round of meters are installed. The meters will be tested in an escalating format, as follows. The first acceptance test will be performed after 1,000 meters are installed. The second acceptance test will be performed after 3,500 meters are installed. The third acceptance test will be performed after 7,500 meters are installed. At this point, meters from all cycles covering the entire Lakeland service territory should have gone through acceptance testing. All acceptance tests after the third will be performed after an additional 10,000 meters are installed until system completion.

Within thirty (30) days after the appropriate additional meters are installed, the parties shall begin the Performance Test on the deployment. Lakeland and Sensus shall work in good faith to complete the Performance Test no later than thirty (30) days after commencement of testing.

Route Read Success Test.

- i. The Read Success Test will measure the percentage of units that deliver valid billable meter reads during the Billing Window of three days. The Read Success Test only measures reads sent from the applicable units; it does not include on demand reads. .

$$\text{Route Read Success} = \frac{100}{x} \frac{(\# \text{ of units that deliver a valid billable meter read during the Billing Window})}{(\text{total } \# \text{ of units in the applicable test segment})}$$

- ii. If Read Success is equal or greater than 98.0 during one Billing Window, defined as 3 days, the Performance Test for that tested segment has passed. Lakeland shall promptly issue written notice to Sensus that Sensus has successfully completed the Performance Test for the applicable tested segment. Such notice shall specify the applicable segment and shall state the date on which the Read Success test was successfully completed. If Lakeland does not issue such notice within ten days of successful completion of the test, then the test is automatically deemed successfully passed. Sensus has no obligation to continue optimizing the system and meeting performance specifications upon successful completion of the Performance Test for each segment. This process shall continue until all testing segments have successfully completed the Performance Test.
- iii. Upon completion of the Performance Test for all segments, Lakeland shall promptly issue written notice to Sensus that Sensus has successfully completed the Performance Test for the AMI System. Such notice shall state the date on which the Performance Test was successfully completed. If Lakeland does not issue such notice within ten days of successful completion of the tests, then the Performance Test for the AMI System is automatically deemed successfully passed (notwithstanding the foregoing, if the AMI System does not *successfully* complete the tests, then the AMI System is not automatically deemed successfully passed).

Meter Body ID Transmission Criteria

- i. The water meter body ID number will be stored in the meters electronic register or the SmartPoint depending on configuration.
- ii. The meter body ID number will be transmitted to the RNI in the binding message and in the interval messages.
- iii. The RNI will be updated to store the meter body ID number, search by the number and display the data.
- iv. SmartPoint firmware version 1.7 is expected to be released approximately June 2016. City of Lakeland will be notified if this date is expected to change.
- v. Meter body ID will be included in the CMEP file that is sent to the MDM.

Definitions

- i. **"Available Meter"** means an installed Sensus FlexNet meter (with a SmartPoint Module installed) or a Sensus SmartPoint Module which has been installed on a third party meter, and which, in either case, is not an Unavailable Meter (or on an Unavailable Meter in the case of SmartPoint Modules on third party meters) and which satisfies all of the following criteria: (i) it functions properly and is not a damaged or failed meter; (ii) it is in a deployment area of meters such that a sufficient number of two-way meters are in range of each other; (iii) it is serviced by RF Field Equipment that has not been subjected to a power failure greater than eight (8) total hours; (iv) neither it nor the RF Field Equipment that serves that meter has been affected by a Force Majeure event; (v) jamming of the radio spectrum is not preventing or interfering with radio communication to or from the meter; (vi) it is installed in the Water Service Territory; (vii) it has not been reported to Lakeland under Sensus' or Lakeland's preventative maintenance; (viii) its functioning or performance has not been adversely affected by a failure of Lakeland to perform its obligations or tasks for which it is responsible, (ix) its functioning or performance has not been adversely affected by a failure or insufficiency of the back haul telecommunications network for communications among the components of the Sensus AMI System; and (x) it has been installed in compliance with the procedures and specifications approved by Lakeland and Sensus.
- ii. **"Billing Window"** for a meter means the three day period commencing one day prior to the relevant billing day for such meter and ending two days after such billing day. The Billing Window for testing purposes shall be agreed by Lakeland and Sensus.
- iii. **"End User"** means any end user of water, that pays Lakeland for the consumption of water, as applicable.
- iv. **"Endpoints"** mean both (a) Sensus FlexNet meters (with a SmartPoint Module installed); and (b) Sensus SmartPoint Modules which have been installed on a third party meter.
- v. **"Force Majeure"** means an event beyond a party's reasonable control, including without limitation, acts of God, hurricane, flood, volcano, tsunami, tornado, storm, tempest, mudslide, vandalism, illegal or unauthorized radio frequency interference, strikes, lockouts, or other industrial disturbances, unavailability of component parts of any goods provided hereunder, acts of public enemies, wars, blockades, insurrections, riots, epidemics, earthquakes, fires, restraints or prohibitions by any court, board, department, commission or agency of the United States or any States, any arrests and restraints, civil disturbances and explosion.
- vi. **"Remote Transceiver"** identifies the Sensus standalone, mounted relay device that takes the radio frequency readings from the SmartPoint Modules and relays them directly to the RNI by TCP/IP backhaul communication.
- vii. **"RF Field Equipment"** means the FlexNet Base Stations, Echo Transceivers, and Remote Transceivers.
- viii. **"Test Equipment"** means the number of RF Field Equipment and production RNIs set forth in the Certified Propagation Study. The Test Equipment specifically does not include test RNIs or backup RNIs; it only includes production RNIs.
- ix. **"Test Meters"** means Endpoints that are Available Meters throughout the entire test period.
- x. **"Unavailable Meters"** include meters that are out of service or inoperable, meters with tamper, theft or other human induced failures that render the meter or SmartPoint Module incapable of providing a read, a Force Majeure event induced failures/or any system or meter maintenance issue that precludes the meter from transmitting its message to the network. Examples of Unavailable Meters include: (i) Tampered Meters: meters or distribution assets that have been modified by unauthorized personnel rendering the meter incapable of providing accurate usage readings from that meter; (ii) Broken TouchCoupler unit: the TouchCoupler unit is damaged by intentional or unintentional acts; (iii) Broken Clip: the clip that holds the TouchCoupler unit into the radio package housing is broken and the unit cannot complete the inductive electrical connection; (iv) Improper installation of the TouchCoupler unit: the TouchCoupler unit is not pushed all the way into the housing clip causing the unit to not be able to complete the inductive electrical connection; (v) Unit not installed through the pit lid: the unit is not installed with the antenna positioned through the pit lid and properly secured with the retaining nut. The radio unit must also be securely attached to the antenna section; (vi) Radio unit not securely attached to the Antenna unit: The water-proof SmartPoint Module housing is not properly installed and secured to the antenna unit; (vii) Damaged antenna: the unit's antenna is damaged by intentional or unintentional acts; (viii) Damaged radio package: the unit's water-proof radio package is damaged by intentional or unintentional acts; (ix) Data Base errors: the unit is removed from the system but not updated in the database. The unit is still shown as in the system when in fact has been removed; (x) Phantom Units: the unit is removed from the system but is still transmitting and being heard by the system; and (xi) Other Installation Defect: the unit is otherwise installed improperly so that it does not communicate with the FlexNet Base Station.

