

33657
SENSUS USA, INC

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Advanced Metering Infrastructure (AMI) Agreement

between

The City of Long Beach, acting through its Gas and Oil Department
(“Customer”)

and
Sensus USA Inc.
(“Sensus”)

IN WITNESS WHEREOF, the parties have caused this AMI Agreement (“Agreement”) to be executed by their duly authorized representatives as of the day and year written below. Customer executes this Agreement pursuant to authority granted to it by action of its City Council taken on June 10, 2014. The date of the last party to sign is the “Effective Date.”

This Agreement shall commence on the Effective Date and continue for/until: 10 Years (“Term”), provided that it may be extended for a longer period by mutual written agreement.

Pricing remains firm until September 1, 2017 (“Trigger Date”).

AMI SERVICES CONTRACT

1. Definitions

- 1.1. “**Affiliate**” of a party means any other entity controlling, controlled by, or under common control with such party, where “control” of an entity means the ownership, directly or indirectly, of 50% or more of either: (i) the shares or other equity in such entity; or (ii) the voting rights in such entity.
- 1.2. “**AMI System**” identifies the Sensus FlexNet Advanced Meter Infrastructure System comprised of the Sensus Meters, SmartPoint Modules, RF Field Equipment, Server Hardware, software licenses, FCC licenses, and other equipment provided to Customer hereunder. The AMI System only includes the foregoing, as provided by Sensus. The AMI System does not include goods, equipment, software, licenses or rights provided by a third party.
- 1.3. “**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) Intentionally Omitted (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 Service Territory; (vii) it has not been reported to Customer under Sensus' or Customer's preventative maintenance; (viii) its functioning or performance has not been adversely affected by a failure of Customer to perform its obligations or tasks for which it is responsible under this Agreement, (ix) its functioning or performance has not been adversely affected by a failure or insufficiency of the back haul telecommunications network of Customer 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 Customer and Sensus.

- 1.4. "**Billing Window**" for a meter means the four 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 Customer and Sensus.
- 1.5. "**Certified Propagation Study**" consists of all documents of the propagation study, including without limitation, the server map and the document describing the Required RF Field Equipment locations and antennae details, agreed upon in a writing (including email) between the parties.
- 1.6. "**Confidential Information**" means any and all non-public information of either party, including the terms of this Agreement, all technical information about either party's products or services, pricing information, marketing and marketing plans, Customer's End Users' data, AMI System performance, AMI System architecture and design, AMI System software, other business and financial information of either party, and all trade secrets of either party. The Confidential Information may be transmitted orally, in writing, electronically or otherwise observed by either party. Notwithstanding the foregoing, "Confidential Information" shall not include: (i) any information that is in the public domain other than due to Recipient's breach of this Agreement; (ii) any information in the possession of the Recipient without restriction prior to disclosure by the Discloser; (iii) any information independently developed by the Recipient without reliance on the information disclosed hereunder by the Discloser. "Discloser" means either party that discloses Confidential Information, and "Recipient" means either party that receives it.
- 1.7. "**CustomerConnect**" means software purchased by Customer directly from N. Harris Computer Corporation. Sensus has no obligation to maintain, support, license, or otherwise service this software unless specifically provided for in this Agreement.
- 1.8. "**End User**" means any end user of electricity, water, and/or gas (as applicable) that pays Customer for the consumption of electricity, water, and/or gas, as applicable.
- 1.9. "**Escalator(s)**" means the following:
 - 1.9.1 For bronze and low lead water metering products: the percentage

change, for the relevant period, of the average of: (a) the United States Bureau of Labor Statistics Producer Price Index, Commodities, Group: Metals and metal products, Item: Copper and copper-base alloy castings (excl. die-castings), series ID: WPU102807013, not seasonally adjusted; and (b) the United States Bureau of Labor Statistics Producer Price Index, Industry Data, Industry and Product: Plastics material and resins mfg., series ID: PCU 325211325211, not seasonally adjusted

- 1.9.2 The Escalator increases called forth in this Agreement shall be calculated to the third decimal point (e.g. 2.576%), but shall be rounded to the 2nd decimal for billing purposes.
- 1.10. "**Equipment**" means the Field Devices, RF Field Equipment, Server Hardware and any other goods purchased by Customer directly from Sensus. Equipment shall not include any goods purchased from a third party.
- 1.11. "**Field Devices**" means the meters and SmartPoint Modules.
- 1.12. "**FlexNet Base Station**" identifies the Sensus manufactured device consisting of one transceiver, to be located on a tower that receives readings from the SmartPoint Modules by radio frequency and passes those readings to the RNI by TCP/IP backhaul communication. For clarity, FlexNet Base Stations include Metro Base Stations.
- 1.13. "**FlexWare™ Software**" identifies the Sensus proprietary software used in the RNI and any Patches, Updates, and Upgrades that are provided to Customer pursuant to the terms of this Agreement.
- 1.14. "**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.
- 1.15. "**In/Out Costs**" means any costs and expenses incurred by Customer in transporting goods between its warehouse and its End User's premises and any costs and expenses incurred by Customer in installing, uninstalling and removing goods.
- 1.16. "**Intellectual Property**" means patents and patent applications, inventions (whether patentable or not), trademarks, service marks, trade dress, copyrights, trade secrets, know-how, data rights, specifications, drawings, designs, maskwork rights, moral rights, author's rights, and other intellectual property rights, including any derivations and/or derivative works, as may exist now or hereafter come into existence, and all renewals and extensions thereof, regardless of whether any of such rights arise under the laws of the United States or of any other state, country or jurisdiction, any registrations or applications thereof, and all goodwill pertinent thereto.

- 1.17. "**LCM**" identifies the load control modules.
- 1.18. "**MeterSense**" means software purchased by Customer directly from N. Harris Computer Corporation. Sensus has no obligation to maintain, support, license, or otherwise service this software unless specifically provided for in this Agreement.
- 1.19. "**Metro Base Station**" means a type of FlexNet Base Station.
- 1.20. "**Ongoing Fee**" means the annual or monthly fees, as applicable, to be paid by Customer during the Term.
- 1.21. "**Patches**" means patches or other maintenance releases of the Software that correct processing errors and other faults and defects found in previous versions of the Software. For clarity, Patches are not Updates or Upgrades.
- 1.22. "**Permitted Use**" means only for reading Customer's meters in the Service Territory. The Permitted Use does not include reading third party meters or reading meters outside the Service Territory.
- 1.23. "**Release**" means both Updates and Upgrades.
- 1.24. "**RF Field Equipment**" means the FlexNet Base Stations.
- 1.25. "**RNI**" identifies the regional network interfaces consisting of hardware and software used to gather, store, and report data collected by the FlexNet Base Stations from the SmartPoint Modules. The RNI hardware specifications will be provided by Sensus upon written request from Customer.
- 1.26. "**Sensus Goods and Services**" means the products, goods, Equipment, parts, components, software, hardware, and service (including technical support services) sold or provided by Sensus to Customer, whether under this Agreement, in connection with a Statement of Work, or pursuant to any amendment, modification or supplement of this Agreement.
- 1.27. "**Service Territory**" identifies the geographic area where Customer provides electricity, water, and/or gas (as applicable) services to End Users as of the Effective Date. This area will be described in the parties' spectrum lease filing with the FCC.
- 1.28. "**Server Hardware**" means the RNI hardware.
- 1.29. "**SmartPoint™ Modules**" identifies the Sensus transmission devices installed on devices such as meters, distribution automation equipment and demand/response devices located at Customer's End Users' premises that take the readings of the meters and transmit those readings by radio frequency to the relevant FlexNet Base Station.
- 1.30. "**Software**" means all the Sensus proprietary software provided pursuant to this Agreement, and any Patches, Updates, and Upgrades that are provided to Customer pursuant to the terms of this Agreement.
- 1.31. "**TouchCoupler Unit**" identifies an inductive coupler connection from a water register to the SmartPoint Module.
- 1.32. "**Unavailable Meters**" include meters with sockets with power cut at the pole, meters that are booted on the line side, sockets that are not provided power due to a power delivery system failure, 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 of the

power delivery system, socket or meter, and/or any system or meter maintenance issue that precludes the meter from transmitting its message to the network. Examples of Unavailable Meters include: (i) Broken TouchCoupler unit: the TouchCoupler unit is damaged by intentional or unintentional acts; (ii) 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; (iii) 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; (iv) 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; (v) 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; (vi) Damaged antenna: the unit's antenna is damaged by intentional or unintentional acts; (vii) Damaged radio package: the unit's water-proof radio package is damaged by intentional or unintentional acts; (viii) Data Base errors: the unit is removed from the system but not updated in the database. Still shown as in the system when in fact has been removed; (ix) Phantom Units: the unit is removed from the system but is still transmitting and being heard by the system; and (x) Other Installation Defect: the unit is otherwise installed improperly so that it does not communicate with the FlexNet Base Station.

- 1.33. "**Updates**" means releases of the Software that constitute a minor improvement in functionality.
- 1.34. "**Upgrades**" means releases of the Software which constitute a significant improvement in functionality or architecture of the Software.
- 1.35. "**WAN Backhaul**" means the communication link between FlexNet Base Stations and RNI.

2. Services

2.1. **Installation of Equipment.**

- 2.1.1. **Generally.** The parties shall have their respective obligations for the deployment and operation of the AMI System as set forth in the Statement of Work attached as Exhibit A. The Statement of Work does not apply if Customer is purchasing Equipment from Sensus' authorized distributor.
- 2.1.2. **Field Devices.** Customer shall install the Field Devices at its End Users' premises, or other location as applicable.
- 2.1.3. **RF Field Equipment.** Sensus shall perform the propagation analysis in the Service Territory to determine where to locate the RF Field Equipment. For the prices set forth in Exhibit B, Sensus, or its subcontractor, shall perform Sensus' obligations in Exhibit A with regards to the RF Field Equipment installation. Customer shall

perform Customer's obligations in Exhibit A with regards to the RF Field Equipment installation.

2.2. **IT Systems Integration Services.** Support for integration of the FlexNet system is described in Exhibit A – Statement of Work and Exhibit B – Schedule of Values.

2.3. **Technical Support.** Sensus shall provide Customer the technical support set forth in Section 9.

3. **Purchasing and Fulfillment**

3.1. **Sensus Receipt of Orders.**

3.1.1. Sensus shall receive, acknowledge and fulfill Customer orders according to the terms of this Agreement.

3.1.2. Sensus shall be responsible to verify that the order has been scheduled for production and will be available for Customer as agreed upon.

3.1.3. Sensus shall manufacture and deliver the Equipment according to the terms of this Agreement.

3.1.4. Sensus shall fulfill the orders to arrive via surface shipment within 70 calendar days of Customer purchase order date. Sensus and Customer shall work together to accommodate changes in deployment schedule.

3.2. **Customer Order Placement.**

3.2.1. Customer shall place firm purchase orders for the AMI System, RF Field Equipment installation, professional services and project management services.

3.3. Customer shall place firm purchase orders with 70 calendar days lead time in accordance with the FlexNet Network Deployment Plan, as further described on Exhibit A.

4. **Software**

4.1. **Software as a Service (SaaS).** Sensus shall provide Customer with Software as a Service, as defined in Exhibit E, only so long as Customer is current in its payments for such services.

5. **Spectrum**

5.1. **Definitions in this Section 5.** In this Section 5 only, "Sensus" shall mean Sensus USA Inc. and its wholly owned subsidiary, Sensus Spectrum LLC.

5.2. **Spectrum Lease.** Sensus hereby grants to Customer, and Customer accepts, a spectrum manager lease ("Lease") over the frequencies of certain FCC license(s) ("FCC License") solely within Customer's Service Territory. (The frequencies of the FCC License within Customer's geographic Service Territory are called the "Leased Spectrum").

5.3. **FCC Forms.** At the Federal Communications Commission (FCC), Sensus will: (1) obtain an FCC Registration Number (FRN) for Customer; (2) submit on behalf of Customer the FCC Form 602 Ownership Disclosure Information

if Customer has not already done so; and (3) file a FCC Form 608, notification/application for long-term spectrum manager lease. The Lease becomes effective when the FCC accepts the FCC Form 608.

- 5.4. **Lease Application.** In order to complete the FCC lease application, Customer will promptly:
- 5.4.1. Complete and sign the representations in Exhibit C of this Agreement such that Customer demonstrates it qualifies for a spectrum lease under FCC rules. Customer's signature will indicate that Customer authorizes Sensus to: (1) obtain an FRN on behalf of Customer; (2) submit the FCC Form 602 Ownership Disclosure Information on behalf of Customer if Customer has not already done so; and (3) file the spectrum manager lease notification on FCC Form 608 with Customer as spectrum lessee.
 - 5.4.2. Give Sensus the coordinates of the boundaries of Customer's Service Territory or, alternatively, approve Sensus' estimation of the same.
 - 5.4.3. If Customer has not already done so: Customer hereby authorizes Sensus to apply on Customer's behalf and obtain for Customer a Federal Registration Number (FRN, the FCC's unique identifier for each licensee) and shall supply Sensus with Customer's Taxpayer Identification Number (TIN).
 - 5.4.4. Provide any other information or other cooperation reasonably necessary for the Parties to perform as set forth herein.
- 5.5. **Permitted Use of Spectrum Lease.** Customer may transmit or receive over the Leased Spectrum only in the Service Territory and only using FlexNet equipment manufactured by Sensus and used in accordance with Sensus' specifications. Customer may use the Leased Spectrum only to read and direct meters in support of Customer's primary utility business or any other operation approved by Sensus in writing. Without limiting the foregoing, Customer is prohibited from reselling, subleasing or sublicensing the Leased Spectrum or from transmitting voice communications over the Leased Spectrum.
- 5.6. **Term of Spectrum Lease.** Unless terminated earlier (because, for example, Customer stops using the FlexNet equipment or because this Agreement terminates or expires for any reason), the Lease will have the same term as the FCC license. If Customer is operating in compliance with this Agreement and is current on any payments owed to Sensus, when the FCC License renews, the Parties will apply to the FCC to renew the Lease.
- 5.7. **Termination of Spectrum Lease.** The Lease will terminate: (a) two months after Customer stops transmitting with FlexNet equipment manufactured by Sensus; (b) upon termination, revocation or expiration of the FCC License; (c) upon Customer's breach of this Agreement (after the expiration of any applicable cure periods); or (d) upon termination or expiration of this Agreement for any reason.
- 5.8. **FCC Compliance.** The following FCC requirements apply:

- 5.8.1. Pursuant to 47 CFR 1.9040(a);
- A. Customer must comply at all times with applicable FCC rules. The Lease may be revoked by Sensus or the FCC if Customer fails to so comply;
 - B. If the FCC License is terminated, Customer has no continuing right to use the Leased Spectrum unless otherwise authorized by the FCC;
 - C. This Agreement is not an assignment, sale or other transfer of the FCC License;
 - D. This Agreement may not be assigned except upon written consent of Sensus, which consent may be withheld in its discretion; and
 - E. In any event, Sensus will not consent to an assignment that does not satisfy FCC rules.
- 5.8.2. Referencing 47 CFR 1.9010, Sensus retains *de jure* and *de facto* control over the applicable radio facilities, including;
- A. Sensus will be responsible for Customer's compliance with FCC policies and rules. Sensus represents and warrants that it has engineered the FlexNet equipment and accompanying software and other programs to comply with FCC rules. Customer will operate the FlexNet equipment subject to Sensus' supervision and control and solely in accordance with Sensus' specifications. Sensus retains the right to inspect Customer's radio operations hereunder and to terminate this Agreement or take any other necessary steps to resolve a violation of FCC rules, including to order Customer to cease transmission. Sensus will act as spectrum manager in assigning spectrum under the FCC License so as to avoid any harmful interference or other violation of FCC rules. Sensus will be responsible for resolving any interference complaints or other FCC rule violations that may arise; and
 - B. Sensus will file any necessary FCC forms or applications and Customer agrees to reasonably assist Sensus with such filing by providing any necessary information or other cooperation. Sensus will otherwise interact with the FCC with respect to this Agreement, the FCC License or FlexNet equipment.
- 5.9. **Interference.** Customer agrees to report to Sensus promptly, and in no event later than one week afterward, any incident related to the Leased Spectrum, including where Customer experiences harmful interference, receives a complaint or other notice of having caused harmful interference, or receives any type of communication from the FCC or other government agency regarding radio transmission.

6. **Terms and Conditions**

- 6.1. **Contract of Sale.** All Sensus goods and services are offered for sale subject to the prices and other terms specified in this Agreement, all of which are subject to the correction of clerical errors. A Customer's purchase order or similar writing shall constitute an acceptance of the offer to sell; however, any inconsistent, additional or different terms contained in a Customer's request for quotation, purchase order, or statement of work, including, without limitation, any terms that modify Sensus' limitation on liability, warranty, and pricing ("Additional Terms") are hereby objected to and rejected by Sensus. Additional Terms will not become part of any transaction or sale between the parties unless mutually agreed upon in a separate contractual amendment that expressly modifies a specific section of this Agreement and which shall be executed by a vice president (or higher) at Sensus in order to become effective.
- 6.2. **Prices.** After the Trigger Date, certain prices are subject to change in accordance with Section 13.1 and Schedule B. Prices quoted for blanket orders are subject to review and retroactive adjustment, if necessary, based on actual quantities shipped.
- 6.3. **Title and Risk of Loss.** All Equipment is shipped Ex Works shipping point, prepay freight and add. Title to, and property in, the Equipment shall pass to Customer upon receipt of shipment and inspection by Customer. Risk of loss of the Equipment shall also pass to Customer upon receipt of shipment and inspection by Customer. Customer's inspections are deemed to be complete and satisfactory unless otherwise reported to Sensus within five (5) business days of receipt of shipment. Customer's remedy is limited to the return or replacement of goods, and any implied warranties not expressly waived shall be limited to those defects which an examination ought in the circumstances to have been revealed to the Customer.
- 6.4. **Cancellation.** Orders submitted to Sensus may not be canceled or amended, or deliveries deferred, by Customer except with Sensus' prior written consent, and then only upon such terms as shall be acceptable to Sensus.
- 6.5. **Returns.** No Equipment may be returned for credit or repair without the prior written authorization of Sensus. Authorized return shipments must be returned in good condition to Sensus' designated receiving point, must be accompanied by a packing slip, including Sensus' Return Authorization Number, and must have transportation charges prepaid. Correspondence concerning all returned Equipment must be addressed to the appropriate Sensus office. Sensus reserves the right to deduct an adequate service charge to cover all inspection, testing and handling from any credit.
- 6.6. **Payment.** All payment and pricing is subject to the terms in Exhibit B and Section 13.
- 6.7. **Indemnification.**
- 6.7.1. Sensus on the one hand, and Customer on the other hand (each an "Indemnifying Party") shall and hereby does indemnify, defend and

hold harmless the other (the "Indemnified Party") from and against all Third Party Litigation Costs incurred by any Indemnified Party in any Third Party Litigation caused by: (i) the Indemnifying Party breaching this Agreement; or (ii) the negligence or intentional misconduct of the Indemnifying Party. As used in this Agreement, "Third Party Litigation" means litigation brought against an Indemnified Party by a Person that is not an Indemnified Party; and "Third Party Litigation Costs" means all reasonable attorneys' fees and other legal expenses incurred in the Third Party Litigation as well as the judgment rendered or settlement reached therein. To avoid doubt, "Third Party Litigation" does not include disputes between the Parties or their Affiliates. It is meant to cover only third party claims by persons or entities other than Indemnified Parties. The Indemnifying Party shall have the right to select counsel in such proceedings and control such proceedings and shall be responsible for the legal costs thereof as well as any judgment rendered therein or settlement reached therein. Nevertheless, the Indemnifying Party shall not settle any claim which may affect the Indemnified Party without the Indemnified Party's prior written approval. The provisions of this Section shall survive the expiration or termination of this Agreement.

6.8. Limitation of Liability.

6.8.1 Sensus' aggregate liability in any and all causes of action arising under, out of or in relation to this Agreement (collectively "Causes of Action"), including its negotiation, performance, breach or termination shall not exceed the greater of: (a) the total amount paid by Customer directly to Sensus under this Agreement; or (b) ten thousand US dollars (USD 10,000.00). This is so whether the Causes of Action are in tort, including, without limitation, negligence or strict liability, in contract, under statute or otherwise. Notwithstanding the foregoing, to the extent Sensus' third party insurance provides coverage for a Cause of Action, Sensus' cap on liability for such Cause of Action shall increase above the aforementioned capped amount and shall be capped at the amount Sensus actually recovers from the third party insurance for the Cause of Action. As separate and independent limitations on liability, Sensus' liability under or in connection with this Agreement (including in connection with Sensus' sale or provision of the Sensus Goods and Services), shall be solely limited to direct damages. Further, Sensus shall not be liable for: (i) any indirect, incidental, special or consequential damages; nor (ii) any revenue or profits lost by Customer or its Affiliates from any End User(s), irrespective whether such lost revenue or profits is categorized as direct damages or otherwise; nor (iii) any In/Out Costs; nor (iv) manual meter read costs and expenses; nor (v) damages arising from maincase or bottom plate breakage caused by freezing temperatures, water hammer conditions, or excessive water pressure; nor (vi) damages arising from equipment striking the meter and damaging the meter in any way, over range capacity usage, excessive gas pressure above allowable operating pressure; nor (vii) any damage of any kind, whether to the gas meter or otherwise, arising from the use of gas

meters with erosive, corrosive, or potentially freezing liquids or gases. The limitations on liability set forth in this Agreement are fundamental inducements to Sensus entering into this Agreement. They apply unconditionally and in all respects. They are to be interpreted broadly so as to give Sensus the maximum protection permitted under law.

- 6.9. **Termination.** Either party may terminate this Agreement early if the other party commits a material breach of this Agreement and such material breach is not cured within forty-five (45) days of written notice by the other party. Upon any expiration or termination of this Agreement, Sensus' and Customer's obligations hereunder shall cease and the Software as a Service and the Lease shall immediately cease.
- 6.10. **Force Majeure.** If either party becomes unable, either wholly or in part, by an event of Force Majeure, to fulfill its obligations under this Agreement, the obligations affected by the event of Force Majeure will be suspended during the continuance of that inability. The party affected by the force majeure will take reasonable steps to mitigate the Force Majeure.
- 6.11. **Intellectual Property.** No Intellectual Property is assigned to Customer hereunder. Sensus shall own or continue to own all Intellectual Property used, created, and/or derived in the course of performing this Agreement. To the extent, if any, that any ownership interest in and to such Intellectual Property does not automatically vest in Sensus by virtue of this Agreement or otherwise, and instead vests in Customer, Customer agrees to grant and assign and hereby does grant and assign to Sensus all right, title, and interest that Customer may have in and to such Intellectual Property. Customer agrees not to reverse engineer any Equipment purchased or provided hereunder.
- 6.12. **Confidentiality.** Both parties shall (and shall cause their employees and contractors to) keep all Confidential Information strictly confidential and shall not disclose it to any third party. The Recipient may only disclose the Confidential Information provided hereunder to its employees, agents, consultants, and contractors who are directly involved with the performance or enforcement of this Agreement and whom the Recipient has legally bound to comply with reasonable confidentiality obligations. In all cases other than the terms of this Agreement which Customer may provide pursuant to a lawful request under California Public Records Act, the Recipient may also disclose Confidential Information to the extent it is obligated to do so under applicable law, court order, or regulation, so long as it gives the Discloser reasonable notice to enable the Discloser to take protective steps.
- 6.13. **Non-Waiver of Rights.** A waiver by either party of any breach of this Agreement or the failure or delay of either party to enforce any of the articles or other provisions of this Agreement will not in any way affect, limit or waive that party's right to enforce and compel strict compliance with the same or other articles or provisions.
- 6.14. **Assignment and Sub-contracting.** Either party may assign, transfer or delegate this Agreement without requiring the other party's consent: (i) to

an Affiliate; (ii) as part of a merger; or (iii) to a purchaser of all or substantially all of its assets. Apart from the foregoing, neither party may assign, transfer or delegate this Agreement without the prior written consent of the other, which consent may be withheld in such party's sole discretion. Furthermore, Customer acknowledges Sensus may use subcontractors to perform RF Field Equipment installation, the systems integration work (if applicable), or project management (if applicable), without requiring Customer's consent.

- 6.15. **Amendments.** No alteration, amendment, or other modification shall be binding unless in writing and signed by both Customer and by a vice president (or higher) of Sensus.
- 6.16. **Governing Law and Dispute Resolution.** The construction and interpretation of this Agreement, and all Causes of Action, shall be governed by, construed and enforced in accordance with the laws of the State of California. Any and all disputes arising under, out of, or in relation to this Agreement, its negotiation, performance or termination ("Disputes") shall first be resolved by the Parties attempting mediation in California. If the Dispute is not resolved within sixty (60) days of the commencement of the mediation, it shall be litigated in the state or federal courts located in California. TO THE MAXIMUM EXTENT PERMITTED BY LAW, THE PARTIES AGREE TO A BENCH TRIAL AND THAT THERE SHALL BE NO JURY IN ANY DISPUTES. To the extent the waiver of a jury trial is determined to be invalid, the parties hereby agree that any Disputes shall be submitted to judicial reference as a trial before a judge.
- 6.17. **Survival.** The provisions of this Agreement that are applicable to circumstances arising after its termination or expiration shall survive such termination or expiration.
- 6.18. **Severability.** In the event any provision of this Agreement is held to be void, unlawful or otherwise unenforceable, that provision will be severed from the remainder of this Agreement and replaced automatically by a provision containing terms as nearly like the void, unlawful, or unenforceable provision as possible; and this Agreement, as so modified, will continue to be in full force and effect.
- 6.19. **Four Corners.** This Agreement, including all attached Exhibits, represents the entire understanding between and obligations of the parties and supersedes all prior understandings, agreements, negotiations, and proposals, whether written or oral, formal or informal between the parties. Any additional writings shall not modify any limitations or remedies provided in the Agreement. There are no other terms or conditions, oral, written, electronic or otherwise. There are no implied obligations. All obligations are specifically set forth in this Agreement. Further, there are no representations that induced this Agreement that are not included in it. The ONLY operative provisions are set forth in writing in this Agreement. Customer represents and agrees that in entering into this Agreement it has not relied on any representations or warranties of any person or entity,

including any officer, agent or representative of Sensus, other than the representations and warranties expressly set forth in this Agreement. Customer hereby disclaims any reliance on any representation or warranty whatsoever other than the representations and warranties expressly set forth in this Agreement. Customer understands that no person (including any officer, agent and representative of Sensus) has any authority to make any representation or warranty on behalf of Sensus and that all representations and warranties of Sensus are set forth in this Agreement.

- 6.20. **Counterparts.** This Agreement may be executed in any number of counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.
- 6.21. **Equal Benefits Ordinance.** Unless otherwise exempted in accordance with the provisions of the EBO, this Agreement is subject to the applicable provisions of the Equal Benefits Ordinance ("EBO"), section 2.73 et seq. of the Long Beach Municipal Code, as amended from time to time. During the performance of this Agreement, Sensus shall comply with the EBO.
- 6.22. **Non-Discrimination.** In connection with performance of this Agreement and subject to applicable rules and regulations, Sensus shall not discriminate against any employee or applicant for employment because of race, religion, national origin, color, age, sex, sexual orientation, gender identity, AIDS, HIV status, handicap or disability. Sensus shall ensure that applicants are employed, and that employees are treated during their employment, without regard to these bases. These actions shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. It is the policy of Customer to encourage the participation of Disadvantaged, Minority and Women-Owned Business Enterprises in Customer's procurement process, and Sensus agrees to use its best efforts to carry out this policy in its use of subcontractors to the fullest extent consistent with the efficient performance of this Agreement. Customer acknowledges that Sensus intends to utilize a subcontractor for the installation of RF Field Equipment. Sensus may rely on written representations by subcontractors regarding their status. Upon written request by Customer, Sensus shall report to Customer the names of all subcontractors hired by Sensus under this Agreement and information on whether or not they are a Disadvantaged, Minority or Women-Owned Business Enterprise, as defined in Section 8 of the Small Business Act (15 U.S.C. Sec. 637).

7. **Sensus Limited Warranty.** The "Sensus Limited Warranty" means all warranties as expressly provided in this Section 7.

7.1. **General Product Coverage**

Except as otherwise provided herein, Sensus warrants its products and

parts to be free from defects in material and workmanship for one (1) year from the date of Sensus shipment.

7.2. SR II® and accuSTREAM™ 5/8", 3/4" & 1" Meters

are warranted to perform to AWWA New Meter Accuracy Standards for five (5) years from the date of Sensus shipment or until the registration shown below, whichever occurs first. Sensus further warrants that the SR II meter will perform to at least AWWA Repaired Meter Accuracy Standards for fifteen (15) years from the date of Sensus shipment or until the registration shown below, whichever occurs first:

	New Meter Accuracy	Repair Meter Accuracy
5/8" SR II Meter and accuSTREAM Meter	500,000 gallons	1,500,000 gallons
3/4" SR II Meter and accuSTREAM Meter	750,000 gallons	2,250,000 gallons
1" SR II Meter and accuSTREAM Meter	1,000,000 gallons	3,000,000 gallons

7.3. SR® 5/8", 3/4" & 1" Meters

are warranted to perform to AWWA New Meter Accuracy Standards for one (1) year from the date of Sensus shipment. Sensus further warrants that the 5/8", 3/4" and 1" SR meter will perform to at least AWWA Repaired Meter Accuracy Standards for fifteen (15) years from the date of Sensus shipment or until the registration shown below, whichever occurs first:

	Repair Meter Accuracy
5/8" SR Meter	1,500,000 gallons
3/4" SR Meter	2,250,000 gallons
1" SR Meter	3,000,000 gallons

7.4. SR 1-1/2" & 2"

are warranted to perform to AWWA New Meter Accuracy Standards for one (1) year from the date of Sensus shipment. Sensus further warrants that the 1-1/2" and 2" SR meter will perform to at least AWWA Repaired Meter Accuracy Standards for ten (10) years from the date of Sensus shipment or until the registration shown below, whichever occurs first:

	Repair Meter
--	--------------

	Accuracy
1-1/2" SR	5,000,000 gallons
2" SR	8,000,000 gallons

7.5. PMM® 5/8", 3/4", 1" Meters

are warranted to perform to AWWA New Meter Accuracy Standards for one (1) year from the date of Sensus shipment. Sensus further warrants that the 5/8", 3/4", and 1" PMM meter will perform to at least AWWA Repaired Meter Accuracy Standards for fifteen (15) years from the date of Sensus shipment or until the registration shown below, whichever occurs first:

	Repaired Meter Accuracy
5/8" PMM	1,500,000 gallons
3/4" PMM	2,000,000 gallons
1" PMM	3,000,000 gallons

7.6. PMM 1-1/2", 2" Meters

are warranted to perform to AWWA New Meter Accuracy Standards for one (1) year from the date of Sensus shipment. Sensus further warrants that the 1-1/2", and 2" PMM meter will perform to at least AWWA Repaired Meter Accuracy Standards for ten (10) years from the date of Sensus shipment or until the registration shown below, whichever occurs first:

	Repaired Meter Accuracy
1-1/2" PMM	5,000,000 gallons
2" PMM	8,000,000 gallons

7.7. iPERL™ Water Management Systems

are warranted to perform to the accuracy levels as set forth in the iPERL Water Management System Data Sheet attached as Exhibit I.

7.8. Maincase

of the SR, SR II and PMM in both standard and low lead alloy meters are warranted to be free from defects in material and workmanship for twenty-five (25) years from the date of Sensus shipment. Composite and E-coated maincases will be free from defects in material and workmanship for fifteen (15) years from the date of Sensus shipment.

7.9. Sensus "W" Series Turbo Meters, OMNI™ Meters and Propeller Meters

are warranted to perform to AWWA New Meter Accuracy Standards for one (1) year from the date of Sensus shipment.

7.10. Sensus accuMAG™ Meters

are warranted to be free from defects in material and workmanship, under normal use and service, for 18 months from the date of Sensus shipment or 12 months from startup, whichever occurs first.

7.11. Sensus Registers

are warranted to be free from defects in material and workmanship from the date of Sensus shipment for the periods stated below or until the applicable registration for AWWA Repaired Meter Accuracy Standards, as set forth above, are surpassed, whichever occurs first:

5/8" thru 2" SR, SR II, PMM, accuSTREAM Standard Registers	25 years
5/8" thru 2" SR, SR II, PMM, accuSTREAM Encoder Registers	10 years
Electronic Communication Index (ECI)	10 years
All HSPU, IMP Contactor, R.E.R. Elec. ROFI	1 year
Standard and Encoder Registers for: "W" Turbo and Propeller Meters	1 year
OMNI Register with Battery	10 years

7.12. Batteries, iPERL System Components, AMR and FlexNet™ System AMI Interface Devices

are warranted to be free from defects in material and workmanship from the date of Sensus shipment for the period stated below:

Electronic TouchPad	10 years
RadioRead® MXU (Model 505C, 510R or 520R) and Batteries	20 years*
Act-Pak® Instrumentation	1 year
TouchRead® Coupler and AMR Equipment	1 year
FlexNet Water or Gas SmartPoint™ Modules and Batteries	20 years*
Hand Held Device	1 year
Vehicle Gateway Base Station	1 year
FlexNet Base Station (including the Metro and M400 base stations)	1 year
Echo Transceiver	1 year
Remote Transceiver	1 year
iConA and FlexNet Electricity SmartPoint	1 year

Module	
iPERL System Battery and iPERL System Components	20 years*
Residential Electronic Register	20 years*

* Sensus will repair or replace non-performing:

- RadioRead® MXU (Model 505C, 510R and 520R) and Batteries,
- FlexNet Water or Gas SmartPoint Modules (configured to the factory setting of six transmissions per day under normal system operation of up to one demand read to each SmartPoint Module per month and up to two firmware downloads during the life of the product) and batteries,
- Residential Electronic Register with hourly reads, and
- iPERL System Batteries, and/or the iPERL System flowtube, the flow sensing and data processing assemblies, and the register (“iPERL System Components”) with hourly reads at no cost for the first ten (10) years from the date of Sensus shipment, and for the remaining ten (10) years, at a prorated percentage, applied towards the published list prices in effect for the year product is accepted by Sensus under warranty conditions according to the following schedule:

Years	Replacement Price	Years	Replacement Price
1 – 10	0%	16	55%
11	30%	17	60%
12	35%	18	65%
13	40%	19	70%
14	45%	20	75%
15	50%	>20	100%

Note: Software supplied and licensed by Sensus is warranted according to the terms of the applicable software license agreement. Sensus warrants that network and monitoring services shall be performed in a professional and workmanlike manner.

7.13. Return

Sensus’ obligation, and Customer’s sole and exclusive remedy for the breach of the Sensus Limited Warranty is, at Sensus’ option, to either (i) repair or replace the product, provided Customer (a) returns the product to the location designated by Sensus within the warranty period; and (b) prepays the freight costs both to and from such location; or (ii) deliver replacement components to Customer, provided Customer installs, at its cost, such components in or on the product (as instructed by Sensus), provided, that if Sensus requests, Customer (a) returns the product to the location designated by Sensus within the warranty period; and (b) prepays

the freight costs both to and from such location. In all cases, if Customer does not return the product within the time period designated by Sensus, Sensus will invoice, and Customer will pay within thirty days of the invoice date, for the cost of the replacement product and/or components.

The return of products for warranty claims must follow Sensus' Returned Materials Authorization (RMA) procedures. Water meter returns must include documentation of Customer's test results. Test results must be obtained according to AWWA standards and must specify the meter serial number. The test results will not be valid if the meter is found to contain foreign materials. If Customer chooses not to test a Sensus water meter prior to returning it to Sensus, Sensus will repair or replace the meter, at Sensus' option, after the meter has been tested by Sensus. Customer will be charged Sensus' then current testing fee. Sensus SmartPoints modules and MXU's returned must be affixed with a completed return evaluation label. For all returns, Sensus reserves the right to request meter reading records by serial number to validate warranty claims.

For products that have become discontinued or obsolete ("Obsolete Product"), Sensus may, at its discretion, replace such Obsolete Product with a different product model ("New Product"), provided that the New Product has substantially similar features as the Obsolete Product. The New Product shall be warranted as set forth in this Sensus Limited Warranty.

THIS SECTION 7 sets forth Customer's sole and exclusive remedy for any defect with respect to, or the failure of, any of the products, services or licensed software provided to Customer by Sensus or any breach by Sensus of the Sensus Limited Warranty to conform to their respective warranties. SENSUS ASSUMES NO LIABILITY FOR COSTS OR EXPENSES ASSOCIATED WITH LOST REVENUE OR WITH THE REMOVAL OR INSTALLATION OF EQUIPMENT. THE FOREGOING REMEDIES ARE CUSTOMER'S SOLE AND EXCLUSIVE REMEDIES FOR THE FAILURE OF EQUIPMENT, LICENSED SOFTWARE OR SERVICES TO CONFORM TO THEIR RESPECTIVE WARRANTIES.

7.14. Warranty Exceptions and No Implied Warranties

This Sensus Limited Warranty does not include costs for removal or installation of products, or costs for replacement labor or materials, which are the responsibility of Customer. The warranties in this Sensus Limited Warranty do not apply to goods that have been: installed improperly or in non-recommended installations; installed to a socket that is not functional, or is not in safe operating condition, or is damaged, or is in need of repair; tampered with; modified or repaired with parts or assemblies not certified in writing by Sensus, including without limitation, communication parts and assemblies; improperly modified or repaired; converted; altered; damaged; read by equipment not approved by Sensus; for water meters, used with

substances other than water, used with non-potable water, or used with water that contains dirt, debris, deposits, or other impurities; subjected to misuse, improper storage, improper care, improper maintenance, or improper periodic testing (collectively, "Exceptions"). If Sensus identifies any Exceptions during examination, troubleshooting or performing any type of support on behalf of Customer, then Customer shall pay for and/or reimburse Sensus for all expenses incurred by Sensus in examining, troubleshooting, performing support activities, repairing or replacing any Equipment that satisfies any of the Exceptions defined above. The above warranties do not apply in the event of Force Majeure.

The Sensus Limited Warranty is the sole and exclusive warranty provided in connection with or respect to each product, good, equipment, part, component, software, hardware, and service (including technical support services) sold or provided by Sensus to Customer, whether under this Agreement, in connection with a Statement of Work, or pursuant to any amendment, modification or supplement of this Agreement (collectively, the "Sensus Goods and Services"). Each of the Sensus Goods and Services are provided to Customer in their as-is condition, with all faults, except as expressly provided by the Sensus Limited Warranty. Without limiting the foregoing: Other than the Sensus Limited Warranty, Sensus provides no warranties whatsoever, whether express or implied, arising through any course of conduct, or provided under applicable law. Sensus hereby disclaims any other warranty of any kind whatsoever, including any warranty that any of the Sensus Goods and Services are merchantable or fit for a particular purpose.

8. **Insurance.** Sensus shall maintain, for the duration of the Agreement, insurance coverages as required by Customer. Sensus shall supply Customer with a certificate of insurance, showing the City of Long Beach as the certificate holder, as of the Effective Date of the Agreement. The certificate must evidence the following insurance placed with an insurer admitted to write insurance in California or an authorized non-admitted insurer having a rating of or equivalent to A:VIII by A.M. Best Company as follows:
 - 8.1. Commercial general liability equivalent in coverage to ISO form CG 00 01 11 85 or 10 93 in an amount of \$1,000,000 per occurrence and \$2,000,000 aggregate. The "City of Long Beach " must be named as additional insured's.
 - 8.2. Automobile liability equivalent in coverage to ISO form CA 00 01 06 92 in an amount not less than \$1,000,000 combined single limit per accident for bodily injury and property damage covering Auto Symbol 1 (Any Auto).
 - 8.3. Workers' compensation and employer's liability in an amount not less than \$1,000,000 per accident or occupational illness if workers' compensation coverage is required by the California Labor Code.

- 8.4. Additional Insured Endorsement. Applicable original endorsements must also be filed with the City before the contract commences, including: (a) An additional insured endorsement to the general liability insurance equivalent in coverage scope to the attached endorsement for Purchase Orders, ISO form CG 20 10 11 85, or ISO form CG 20 26 11 85 naming "The City of Long Beach " as additional insured's under the general liability policy. (b) Wording in each policy stating that such policy shall not be cancelled by either party except after thirty (30) days prior written notice to the City and that the policy shall apply on a primary non-contributing basis in relation to any insurance or self-insurance, primary or excess, maintained by or available to the City or any employee or agent of the City.

9. **Technical Support**

9.1. **Introduction.**

Sensus Technical Services serves Customer as the point of first contact for technical issues. While most requests are solved in a single call, those that require specialized skills are forwarded to increasingly senior support engineers within the team until resolution. If necessary, the initial utility contact within Technical Services will provide coordination additional resources. If Technical Services has exhausted all troubleshooting efforts, the issue will escalate to Sensus Engineering. Occasionally, on-site troubleshooting/analysis may be required. Sensus may ask Customer for assistance with the easiest and lowest time-consuming activities (e.g., power on/power off), but for more complex issues Sensus employees (or contracted personnel) may travel to the customer site.

9.2. **Support Categories.**

- 9.2.1. General questions regarding functionality, use of product, how-to, and requests for assistance related to the AMI System.
- 9.2.2. Proactive reporting and resolution of problems.
- 9.2.3. Reactive reporting to isolate, document, and solve reported hardware/software defects.
- 9.2.4. Responding to service requests and product changes.
- 9.2.5. Addressing customer inquiries with printed or electronic documentation, examples, or additional explanation/clarification.

9.3. **Support Hours.**

- 9.3.1. Standard Support Hours: Toll-free telephone support (1-800-638-3748 option #2) is available Monday thru Friday from 5:00AM Pacific Time to 5:00PM Pacific Time. After-hours, holiday and weekend support for Severity 1 and Severity 2 issues as defined below is available by calling 1-800-638-3748, option #8.

9.4. **Support Procedures.**

- 9.4.1. Customer identifies an issue or potential problem and calls Technical Services at 1-800-638-3748 Option #2. The Customer Service Associate or Technical Support Engineer will submit a Support ticket.

- 9.4.2. The Customer Service Associate or Technical Support Engineer will identify the caller name and utility by the assigned software serial number, city, and state in which the call originated. The nature of the problem and severity levels will be agreed upon by both parties (either at the time the issue is entered or prior to upgrading or downgrading an existing issue) using the severity definitions below as a guideline. The severity level is then captured into a support ticket for creation and resolution processing. Any time during the processing of this ticket, if the severity level is changed by Sensus, Customer will be updated.
- 9.4.3. Severity Levels Description:
- A. **Sev1.** Customer's production system is down. The system is unusable resulting in total disruption of work. No workaround is available and requires immediate attention.
 - B. Example: Network mass outage, all reading collection devices inoperable, inoperable head end software (e.g., FlexWare, Sensus MDM).
 - C. **Sev2.** Major system feature/function failure. Operations are severely restricted; there is a major disruption of work, no acceptable work-around is available, and failure requires immediate attention.
 - D. Examples: Network equipment failure (e.g., Base Station transceiver or VGB); inoperable reading devices (e.g., AR5500, VXU, VGB, or CommandLink); head end software application has important functionality not working and cannot create export file for billing system operations.
 - E. **Sev3.** The system is usable and the issue doesn't affect critical overall operation.
 - F. Example: Minor network equipment failure (e.g., Base Station transceiver false alarms); head end software application operable but reports are not running properly, modification of view or some non-critical function of the software is not running.
 - G. **Sev4.** Minor system issues, questions, new features, or enhancement requests to be corrected in future versions.
 - H. Examples: Minor system issues, general questions, and "How-To" questions.
- 9.4.4. The Customer Service Associate or Technical Support Engineer identifies whether or not Customer is on support. If Customer is not on support, Customer is advised of the service options as well as any applicable charges that may be billed.
- 9.4.5. Calls are placed in a queue from which they are accessible to Technical Support Engineers on a first-come-first-serve basis. A first level Customer Service Associate may assist Customer, depending on the difficulty of the call and the representative's technical knowledge. Technical Support Engineers (Tier 1 support) typically

respond/resolve the majority of calls based on their product knowledge and experience. A call history for the particular account is researched to note any existing pattern or if the call is a new report. This research provides the representative a basis and understanding of the account as well as any associated problems and/or resolutions that have been communicated.

- A. Technical Services confirms that there is an issue or problem that needs further analysis to determine its cause. The following information must be collected: a detailed description of the issue's symptoms, details on the software/hardware product and version, a description of the environment in which the issue arises, and a list of any corrective action already taken.
- B. Technical Services will check the internal database and product defect tracking system, to see if reports of a similar problem exist, and if any working solutions were provided. If an existing resolution is found that will address the reported issue, it shall be communicated to Customer. Once it is confirmed that the issue has been resolved, the ticket is closed.
- C. If there is no known defect or support that defines the behavior, Technical Services will work with Customer to reproduce the issue. If the issue can be reproduced, either at the customer site or within support center test lab, Technical Services will escalate the ticket for further investigation / resolution.

If the issue involves units that are considered to be defective with no known reason, the representative will open a Special Investigation RMA through the Support system. If it is determined that a sample is required for further analysis, Customer will be provided with instructions that detail where to send the product sample(s) for a root cause analysis. Once it is determined that the issue cannot be resolved by Tier 1 resources, the ticket will be escalated to Tier 2 support for confirmation/workarounds to resolve immediate issue. Technical Services will immediately contact Customer to advise of the escalation. The response and escalation times are listed in Section 9.5. At this time, screen shots, log files, configuration files, and database backups will be created and attached to the ticket.

9.5. Response and Resolution Targets.

Sensus Technical Support will make every reasonable effort to meet the following response and resolution targets:

Severity	Standard	Standard Target	Resolution
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	Target Response	Resolution	
1	30 Minutes	Immediately assign trained and qualified Services Staff to correct the error on an expedited basis. Provide ongoing communication on the status of a correction.	<ul style="list-style-type: none"> • Satisfactory workaround is provided. • Program patch is provided. • Fix incorporated into future release. • Fix or workaround incorporated into the Support Knowledge Base.
2	4 hours	Assign trained and qualified Services Staff to correct the error. Provide communication as updates occur.	<ul style="list-style-type: none"> • Satisfactory workaround is provided. • Program patch is provided. • Fix incorporated into future release. • Fix or workaround incorporated into the Support Knowledge Base.
3	1 Business Day	90 business days	<ul style="list-style-type: none"> • Answer to question is provided. • Satisfactory workaround is provided. • Fix or workaround incorporated into the Support Knowledge Base. • Fix incorporated into future release.
4	2 Business Days	12 months	<ul style="list-style-type: none"> • Answer to question is provided. • Fix or workaround incorporated into the Support Knowledge Base.

9.6. Problem Escalation Process.

9.6.1. If the normal support process does not produce the desired results, or if the severity has changed, the issue may be escalated as follows to a higher level of authority.

- A. Severity 1 issues are escalated by Sales or Technical Services to a Supervisor if not resolved within 2 hours; to the Manager level if not resolved within 4 hours; to the Director level if not resolved within the same business day; and to the VP level if not resolved within 24 hours.
- B. A customer may escalate an issue by calling 1-800-638-3748,

Option 2. Please specify the Support ticket number and the reason why the issue is being escalated.

- C. In the event that Customer is not satisfied with the level of support or continual problem with its Equipment, it may escalate a given Support ticket to Manager of Technical Services (1-800-638-3748, Option 2).

9.7. **General Support Provisions and Exclusions.**

9.7.1 Sensus provides online documentation for Sensus products through the Sensus User Forum (<http://myflexnetsystem.com/Module/User/Login>) ("Portal"). All Sensus customers are provided access to this online database, which includes operation, configuration and technical manuals. Sensus also hosts periodic user group teleconferences to facilitate the interchange of product ideas, product enhancements, and overall customer experiences. Customer shall provide names and email accounts to Sensus so Sensus may provide access to the Portal.

9.7.2 Specialized support from Sensus is available on a fee basis to address support issues outside the scope of this support plan or if not covered under another specific maintenance contract. For example, specialized systems integration services or out of warranty network equipment repair that is not covered under a separate maintenance contract.

10. **Technical Documentation**

Exhibit H lists the documentation to be provided by Sensus, as well as the terms and conditions governing the documentation.

11. **On-line Order Tracking**

Sensus shall provide access to a Web-Based, on-line order tracking system for purposes of permitting Customer to view status of open orders and shipment of Sensus equipment.

12. **Network Operations Support**

The annual Network Operations Support fee covers a range of value-added services, including use of the Leased Spectrum, FCC License maintenance, network infrastructure extended warranty including replacement parts, firmware maintenance, and technical support for the network hardware.

12.1. **Network Operations Support includes the following:**

12.1.1. Sensus will monitor the FlexNet Regional Network Interface (RNI) servers and network connections between the RNI and FlexNet Basestations. In the event of a communications interruption between the Basestations and the RNI, Sensus shall notify Customer and/or log a ticket with Sensus Technical Support.

12.1.2. Sensus will provide "second response" resources for field visits and troubleshooting of Basestations and other network infrastructure

components. Any Sensus field visits that occur after completion of System Acceptance Tests described in Exhibit D shall be subject to an hourly service charge. Travel expenses shall be billed separately at cost.

12.1.3. Sensus will provide components to repair Basestation or other FlexNet network equipment if required.

12.1.4. Sensus shall provide and implement firmware updates as required to the FlexNet Basestations.

12.2. **Network Operations Support does NOT include:**

12.2.1. Monitoring of the individual or aggregate meter performance after Systems Acceptance.

12.2.2. Operation of the FlexNet network.

12.2.3. First response labor for troubleshooting Basestations or other network infrastructure components.

12.2.4. Warranty returns for AMI SmartPoint devices, registers or meters if required. The Sensus RMA process is outlined below in this document.

12.2.5. Standard periodic preventative maintenance of the Basestations or other network infrastructure. Customer agrees to be responsible for periodic inspection and preventative maintenance of network infrastructure components. Detailed maintenance procedures can be found in document **AMR-453 Basestation Maintenance** in Exhibit H – Technical Submittals.

13. **Payment Terms**

13.1. **Escalation.** Customer shall pay for all goods and services rendered by Sensus hereunder at the prices set forth in Exhibit B. The pricing for Equipment in Exhibit B shall remain firm for the Term, with the exception of Equipment containing bronze which shall remain firm until the Trigger Date (as defined on the first page of this Agreement). Starting on the Trigger Date, and on each anniversary of the Trigger Date thereafter, any Equipment containing bronze shall automatically adjust to equal the summation of (i) the amount charged for such pricing component during the immediately preceding year (“Base Amount”); plus (ii) the product of the Base Amount multiplied by the percentage rate of increase in the Escalator(s) during the immediately preceding year (which product shall not be less than zero, such that the pricing in Exhibit B cannot decrease under this section). The Escalator(s) will be calculated utilizing the Escalator(s) published the month prior to the anniversary of the Trigger Date compared to the equivalent month from one year earlier to determine the escalation. For example, if the Trigger Date occurs in September 2017, the Escalator(s) will be calculated by comparing August 2016 and August 2017 figures.

13.1.1. On the Trigger Date, pricing for Services shall increase by 3% over the prior year as described in Exhibit B.

- 13.2. **Equipment.** Invoices for all Field Devices, RF Field Equipment, Server Hardware and any other goods sold by Sensus hereunder shall be delivered along with the relevant goods.
- 13.3. **Third Party Devices.** In cases where Customer requests or requires Sensus to deliver SmartPoint Modules to a third party meter manufacturer (or any other third party), payment for such modules is due within thirty (30) days of the invoice date to such manufacturer or other third party, irrespective of how long it takes such third party to deliver the SmartPoint Modules to Customer.
- 13.4. **Services.** Invoices for Ongoing Fees and services shall be delivered annually or monthly, as applicable, in advance, unless otherwise specified in this Agreement. Invoices for other services shall be delivered upon completion of the applicable service.
- 13.5. **Invoices and Payment.** Customer shall pay all invoices within thirty (30) days of the invoice date. Sensus reserves the right to establish credit limits for Customer and may require full or partial payment prior to shipment of any goods or commencement of any services provided hereunder. All payments shall be made via electronic payment to the account(s) indicated by Sensus from time to time, unless Sensus requests a change in payment methods in writing.
- 13.6. **Late Payments.** Any invoices not disputed in good faith by Customer which Customer does not pay within forty five (45) days of invoice date shall bear interest at the lower of (i) one and a half percent (1.5%) per month up to a maximum of eighteen percent (18%) per year; or (ii) the highest rate permitted by applicable law (collectively, "Interest Rate").
- 13.7. **Disputed Invoices.** If Customer disputes an invoice, it shall give written notice of the dispute to Sensus within 30 days of the invoice date. If it does not do so, the entire invoice shall be deemed payable without reduction, set off, or claim. If Customer gives written notice of the dispute within the required thirty (30) days, it shall, at such time as the notice is given, pay the undisputed amount of the invoice and the disputed portion shall be resolved by the parties or, if necessary, under the dispute resolution provisions of this Agreement. If it is ultimately determined that some or all of the disputed amount was payable, that amount shall bear interest from the original due date until Customer pays it at the Interest Rate.
- 13.8. **Withholding.** Customer may withhold payment on an invoice for defective goods and services.
- 13.9. **Taxes.** All prices quoted are exclusive of federal, state and municipal taxes. Customer shall be liable for all sales, use and other taxes (whether local, state or federal) imposed on this Agreement or the goods, services, licenses, and/or other rights provided to Customer hereunder.
- 13.10. **Delivery and Packaging.** Customer shall pay for delivery of the Equipment from Sensus' or Sensus' contracted manufacturers' factory to Customer's warehouse. Sensus reserves the right to select the manner in which Equipment is packaged. Quoted prices include regular packing. Special requirements for packing will be subject to extra charges. Shipping and

completion dates quoted by Sensus are made in good faith but are not guaranteed.

13.11. **Address for Purchase Orders.** All purchase orders shall be sent to the address listed below. Sensus may change this address at any time, upon written notice to Customer (such notice may be provided via email).

Sensus USA Inc.
PO Box 487
Uniontown, PA 15401
Attn Customer Service
Fax: 800-888-2403
Email: icon.support@sensus.com

13.12. **Purchase Orders.** The parties agree that the terms and conditions stated on any Customer purchase orders shall be superseded by the terms and conditions stated herein and shall be of no force and effect.

CITY OF LONG BEACH

Assistant City Manager



Patrick H. West
City Manager

Date: 12/26/14

EXECUTED PURSUANT
TO SECTION 301 OF
THE CITY CHARTER.

SENSUS USA INC.



Richard Creegan
Vice President of Sales

Date: 12/16/2014

APPROVED AS TO FORM

12-17-2014
CHARLES PARKIN, City Attorney

By 
RICHARD ANTHONY
DEPUTY CITY ATTORNEY

Exhibit A - Statement of Work

Overview: This Statement of Work is expressly attached to and part of the Agreement and is subject to all the limitations of the Agreement, including limits on warranties and limits on damages.

Purpose

The City of Long Beach (CLB) has engaged Sensus to provide services related to the implementation of an Automated Metering Infrastructure (AMI) system, and CLB and Sensus have executed an AMI Agreement (“Agreement”) to which this Exhibit A is attached. Sensus and its FlexNet technology were selected as the primary communication tool for AMI. Sensus’ engagement includes the design and installation of the AMI collector network, installation of the Regional Network Interface (RNI) software, delivery of gas meters and SmartPoint registers, deliver of iPERL water meters (for City of Signal Hill), and overall project implementation support. The various project phases and a more detailed description of Sensus’ responsibilities are specified below:

Phase I – FlexNet AMI Network Design and Installation

This phase involves the planning and designing of the appropriate AMI network infrastructure to meet the system performance requirements. This includes the initial propagation study, CLB review and site approval, site preparation, and installation of the FlexNet Basestations. Deliverables are further detailed below:

	Phase I – FlexNet AMI Network Design and Installation
Task 1.1	Delivery of Network Deployment Plan
Task 1.2	Delivery of FlexNet Basestations
Task 1.3	Installation, Configuration and Certification of the FlexNet Basestations

Task 1.1 – Network Deployment Plan

Sensus and CLB will work together to make final site selections that support optimizing system performance. Once the sites are finalized, Sensus will provide a comprehensive Network Deployment Plan (“Plan”). The Plan will include the FlexNet network design (RF propagation study), FlexNet Basestation locations, meter locations, antenna height, and areas of predicted network coverage. The Plan will also include an installation timetable that aligns with the overall project plan.

- 1.1a – Sensus shall perform preliminary site surveys at all specified Basestation sites.
- 1.1b - Sensus shall provide a detailed Scope of Work for Basestation site preparation work to be completed by CLB prior to Basestation installation.
- 1.1c - Sensus shall design the AMI network such that sufficient Basestation network devices will be deployed to meet the System Performance Warranty specified in Exhibit G for the AMI System.

Task 1.2 – FlexNet Basestation Delivery

CLB shall issue a Purchase Order for the FlexNet Basestations as needed to meet the project schedule. Sensus shall fill the Basestation orders according to established and mutually agreed lead times.

Task 1.3 – Installation, Configuration and Configuration of FlexNet Basestations

This section describes the installation and provisioning of the appropriate FlexNet AMI network infrastructure. Installation will include the full range of activities necessary to install, configure, and certify the FlexNet Basestations according to Sensus specifications.

- 1.3a - CLB shall complete all Basestation site preparation identified in the Statement of Work provided by Sensus prior to Basestation installation by Sensus subcontractor.
- 1.3b - Sensus Project Manager shall coordinate and schedule Basestation installation activities with CLB.
- 1.3c - Sensus will hire a third party contractor that meets all CLB insurance requirements to complete the physical placement and installation of all Basestation cabinets and ancillary equipment including antenna and antenna coaxial cable at Basestation sites identified in the Network Deployment Plan. Installation performed by Sensus shall include the final connections to electrical power and data backhaul communications cables.
- 1.3d - Sensus will configure and certify that all FlexNet AMI Basestations are properly functioning according to Sensus specifications and the SAT criteria outlined in test scripts BA-1, BA-2, BA-3, and BA-4 in **Exhibit D: Systems Acceptance Testing**.

Assumptions:

1. CLB shall work with Sensus to complete a tour of proposed Basestation sites, and conduct a timely review of the Network Design document (propagation study) approving or rejecting proposed Basestation sites. CLB will also coordinate site access for Sensus and/or Sensus contractor to perform Basestation analysis and installation.
2. CLB shall review and approve the Scope of Work for Basestation installation for each proposed site. If proposed methods are not acceptable, CLB will provide explanation and alternate methods to accomplish the installation.
3. CLB shall be responsible for all necessary Basestation construction permits and shall complete all Basestation site preparation work prior to the installation of the Basestations by Sensus.
4. Sensus shall install the Basestation cabinet and all ancillary equipment at the Basestation site after site preparation by CLB is complete.
5. Sensus shall warrant that all FlexNet AMI network equipment installed on CLB property adheres to CLB engineering and safety standards.
6. If CLB makes modifications after the final agreed base station locations that impact cost, Sensus will provide a cost estimate and any impact to coverage, and/or schedule.
7. CLB shall provide all networking hardware (routers, switches, cabling, etc.) and pay any monthly charges required to maintain TCP/IP network backhaul communications at each Basestation site.

8. CLB shall provide TCP/IP network communications backhaul connection between the FlexNet Basestations and the FlexNet RNI, and pay any ongoing fees associated with the TCP/IP backhaul connection.
9. CLB shall purchase any routers, switches, cabling or other equipment needed to connect the Basestations to the CUSTOMER provided backhaul communications.
10. CLB shall provide TWO private, static IP address for each M400.

Deliverables:

1. Network Design Document (propagation study).
2. Network Deployment Plan including a Scope of Work for each proposed Basestation site, including the necessary Basestation site preparation work to be completed by CLB prior to Basestation installation.
3. Sensus and/or Sensus' subcontractor Basestation installer shall install all Basestations and ancillary Basestation equipment (antenna and coaxial cable) in accordance with approved installation method.
4. Sensus shall configure and certify all Basestations after installation according to Sensus specifications.

Phase IIa – Regional Network Interface (RNI) Installation

This phase involves the installation and commissioning of the Regional Network Interface (RNI) software. It also involves the design, procurement and implementation of the hardware and software necessary to support the Long Beach Regional Network Interface (RNI) as specified in ***Exhibit E – Software as a Service***. Deliverables are further detailed below:

Phase IIa – Regional Network Interface (RNI) Installation	
Task 2.1a	Installation of the Regional Network Interface (RNI) Hardware and Software
Task 2.2a	Configuration of the Regional Network Interface.

Task 2.1a – Installation of Regional Network Interface (RNI) Software

Sensus shall install RNI and configure software version 3.1 Service Pack 3 or later, in alignment with the overall project schedule as mutually agreed by Sensus and CLB. The schedule will be agreed upon following the Effective Date. Sensus shall also provide a URL along with any necessary access information to allow for CLB to log into the FlexNet RNI system.

Task 2.2a – RNI Configuration

Sensus shall configure the Regional Network Interface (RNI) and demonstrate its availability through the RNI diagnostic reporting tools as described in Exhibit D: Systems Acceptance Testing script RNI-1. Sensus shall also successfully create California Meter Exchange Protocol (CMEP) reports from the RNI as outlined in Exhibit D: Systems Acceptance Testing script RNI-2.

Assumptions:

1. CLB shall perform all necessary testing of, and be responsible for the Internet connection and client computer hardware and software within the CLB network used to access the FlexNet Regional Network Interface (RNI).

Deliverables:

1. Sensus shall install and configure the FlexNet Regional Network Interface (RNI) in the Sensus Data Center.
2. The version installed shall be RNI Version 3.1 Service Pack 3 or later, as mutually agreed by Sensus and CUSTOMER at the time of RNI installation.
3. Sensus shall procure all RNI server hardware, software and third-party software licenses required for RNI installation and operation.
4. Sensus shall provide a URL for customer to log in to the FlexNet RNI.
5. Sensus shall successfully complete test scripts as described in RNI-1 and RNI-2 in **Exhibit D - Systems Acceptance Testing**.

Phase IIb – Harris MeterSense and CustomerConnect Hosted Environments

This phase includes the installation and configuration of the Harris MeterSense and CustomerConnect environments to be hosted by Sensus in the Sensus Data Center. Sensus will provide the server environments as specified by Harris for the MeterSense and CustomerConnect environments. Long Beach shall purchase the Harris software licenses directly from Harris and shall also pay ongoing software support fees directly to Harris.

	Phase IIb – Harris MeterSense and CustomerConnect Hosted Environments
Task 2.1b	Installation of the Harris MeterSense hosted environment
Task 2.2b	Installation of the Harris CustomerConnect hosted environment

Task 2.1b – Installation of the Harris MeterSense hosted server environment in the Sensus Data Center.

Sensus shall source, install and configure the required hardware and 3rd party software as specified by Harris to allow the installation of the Harris MeterSense application by Harris in the Sensus Data Center.

Task 2.2b – Installation of the Harris CustomerConnect hosted server environment in the Sensus Data Center.

Sensus shall source, install and configure the required hardware and 3rd party software as specified by Harris to allow the installation of the Harris CustomerConnect application by Harris in the Sensus Data Center.

Assumptions:

1. CLB shall pay the MeterSense and CustomerConnect server environment setup fees as specified in **Exhibit B – Schedule of Values** upon contract execution.
2. Sensus shall provide all server hardware and 3rd party software (including operating system and any required database software) for the MeterSense and CustomerConnect applications.
3. Sensus shall confirm in writing when the environments are available to Harris to begin installation of the Harris applications.
4. Harris shall confirm in writing that the environments are available and meet Harris recommended specifications as described in Exhibit D – Systems Acceptance Testing scripts Host-1 and Host-2.
5. CLB shall purchase all Harris software licenses directly from Harris, and shall pay ongoing Harris software support fees directly to Harris.

Deliverables:

1. Sensus shall install and configure the Harris MeterSense hosted environment in the Sensus Data Center. The MeterSense environment provided shall meet the specifications provided by Harris.
2. Sensus shall install and configure the Harris CustomerConnect hosted environment in the Sensus Data Center. The CustomerConnect environment provided shall meet the specifications provided by Harris.
3. Sensus shall procure all RNI server hardware and third-party software licenses required for the Harris MeterSense and CustomerConnect environments.
4. Sensus shall successfully complete the Host-1 and Host-2 Systems Acceptance Tests described in Exhibit D.

Phase IIc – FCC Lease and Network Operations Support

Upon Agreement execution, Sensus shall file the appropriate paperwork with the FCC to notify the FCC of the spectrum manager lease entered into by the parties.

	Phase IIc – FCC License and Network Operation Support
Task 2.1c	Notification of the spectrum manager lease to the FCC to name CLB as lessee of Sensus' licensed spectrum within the CLB Service Territory.
Task 2.2c	Delivery of official FCC notification to CLB confirming that CLB is officially named as sublicensee for the required licensed spectrum within the CLB Service Territory.

Assumptions:

1. CLB shall complete and sign the FCC application form on Exhibit C, and complete all other requirements detailed in **Section 5 – Spectrum** of the Agreement.
2. Upon delivery of the notification of spectrum manager lease to the FCC, CLB will pay the Network Operations Support fee listed in **Exhibit B – Schedule of Values** within 30 days.

Phase III – Meter, Register and SmartPoint Delivery/Installation

This phase involves the purchase and installation of meters, meter parts (regulatory, connectors, etc.), and SmartPoint meter registers. The meter installation work is intended to be performed in different groups or phases as defined in the overall Project Plan. Installation timing will coincide with deployment of the FlexNet network coverage. Ordering lead times and delivery shall comply with the specifications listed in the procurement section of the agreement. Training on the proper installation and verification of the SmartPoint meter register device will be provided to CLB staff and CLB Installation contractor as outlined in this Statement of Work. Deliverables are further detailed below:

	Phase III – Meter, Register and SmartPoint Delivery/Installation
Task 3.1	Meter and Meter Parts Ordering/Delivery
Task 3.2	SmartPoint Meter Register Ordering/Delivery

Task 3.1 – Meter and Meter Parts Delivery

CLB shall follow procurement requirements and the fee schedule provided in the Agreement for ordering meters and meter parts.

Task 3.2 – SmartPoint Meter Register

CLB shall follow procurement requirements and the fee schedule provided in the Agreement for ordering SmartPoint meter registers. Sensus will provide on-site training to CLB staff and CLB Installation contractor for the proper installation and device verification.

Assumptions:

1. CLB shall ensure that Sensus meters, SmartPoints and other Sensus equipment installed by staff or subcontractor installer(s) are installed according to manufacturer’s specifications.
2. CLB is responsible for troubleshooting meters, SmartPoints and/or other Sensus devices installed by staff or subcontractor installer(s). Once initial troubleshooting is complete and issues still exist, Sensus will investigate any remaining non-responsive Field Devices to identify and fix any coverage issues that may exist.

Deliverables:

1. Sensus shall deliver Meters, Meter Parts, and SmartPoint Registers according to provided ordering timelines

Phase IV – Training

This phase involves the development and delivery of a training plan and on-site staff training. Various elements of the phase are further detailed below:

	Phase IV – Training
Task 4.1	Training Plan
Task 4.2	Introductory Training
Task 4.3	Role Based Training
Task 4.4	Training Evaluation Process

Task 4.1 – Training Plan

During the Alpha Phase of the AMI Project (see Overall Project Plan), Sensus shall provide an integrated training plan for CLB review and approval.

- 4.1a - The training plan shall include training for different functional areas (e.g. system administrator, system developer, field engineers, SmartPoint troubleshooting, etc.), and specify the type of training (e.g. classroom, field, on the job, etc.) and duration of training.
- 4.1b - The training plan shall include recommendations on CLB personnel to be trained in each functional area.
- 4.1c - The training plan shall include recommendations on prerequisite knowledge and experience of trainees in each functional area.

Task 4.2 – Introductory Training (1 Day)

The first stage of training is typically provided shortly after the project kickoff. This training includes a high-level overview of all system components which is recommended for all utility personnel. The roles and responsibilities for effectively managing the system as well as the major components and software applications which comprise the FlexNet system will be described. The modules, presented in particular order, educationally build upon themselves and are designed to be beneficial to management, office, and field personnel alike. The modules include:

- A. FlexNet System Overview (includes network data flow from endpoint to head end).
- B. FlexNet Roles and Responsibilities Overview.
- C. Regional Network Interface (RNI) Overview.
- D. RNI FlexWare Web Interface Overview.
- E. Meter/Endpoint Lifecycle Management within FlexNet.

Task 4.3 – Role Based Training: (1 Day for each group)

This training is typically provided within the first month of project deployment. The Role-Based training is presented by professional educators with years of field service to help utility personnel understand what they should be doing during the first 3-6 months of deployment, on a daily basis, to ensure a successful rollout. Participants are provided a process checklist of daily actions and tasks, as well as intuitive and easy to understand student guides that can be used as desktop references after instruction.

This training is focused on specific groups of personnel assigned to various roles, including:

4.3a - Administrators (1 Day)

1. RNI Component Overview
2. RNI Configuration and Management Overview
3. Configuring and Managing RNI System Security: User Access Control
4. Configuring and Managing RNI System Security: System Access Control
5. Configuring and Managing RNI System Security: Data Access Control
6. Configuring and Managing RNI System Operation
7. Configuring and Managing the FlexNet Components: Performing Meter Firmware Download

4.3b - Operators (1 Day)

1. Managing Gas and Water Meters Using RNI Device Manager
2. RNI Monitoring Overview
3. Monitoring Overall Read Performance
4. Monitoring the Health and Performance of Smart Water and Gas Meters
5. Monitoring the Health and Performance of Base Stations and the RF Network
6. Monitoring the Health and Performance of the RNI

4.3c - Installers and Meter Technicians (1 Day each for Water and Gas)

1. Overview of SmartPoint Operation and Network Data Flow
2. Handheld Field Tool and Software Training
3. Smart Water and Gas Endpoint Maintenance and Troubleshooting
4. Hands-on Field Installation Training

Task 4.4 – Training Evaluation Forms

Sensus shall distribute a Training Evaluation Form at the conclusion of each training session to be completed by participants. Sensus shall review responses with the CLB Project Manager to identify any training gaps or deficiencies. If any are identified, Sensus and CLB shall work together to resolve these deficiencies in the most appropriate manner *(If additional training is required, there may be an additional charge)*.

Assumptions:

1. CLB shall provide appropriate classroom training facilities for all training outlined in this section.
2. CLB Project Manager shall work with Sensus to schedule appropriate personnel for training and distribute training documents.
3. CLB Project Manager shall ensure that training participants have met the recommended prerequisites prior to the training sessions.
4. CLB Project Manager shall be responsible for ensuring that the appropriate personnel attend the training sessions and that these personnel acknowledge that the training has been provided by completing a Training Evaluation Form at the conclusion of the training.

Deliverables:

1. Sensus shall provide an Integrated Training Plan for CLB approval at the beginning of the network deployment.
2. Sensus shall provide available training manuals for all training provided.
3. Sensus shall provide training as detailed above.
4. Sensus shall distribute a Training Evaluation Form at the conclusion of each training session and review the responses with CLB identifying any training gaps or deficiencies.
5. Sensus and CLB shall work together to resolve any training gaps or deficiencies.

Phase V – Project Management

This section describes the overall project management responsibilities associated with designing and deploying the FlexNet AMI network. Various elements of the phase are further detailed below:

	Phase V – Project Management
Task 5.1	Project Management

Project Management

Generally, Sensus will work with CLB staff and its contractors and other partners for the successful implementation of the AMI system. A Sensus Project Manager (with appropriate knowledge of the FlexNet system and who meets CLB background standards) will participate as a member of the project implementation team. This participation will focus on the following responsibilities:

- A. Overall planning and execution of the FlexNet AMI network deployment, employing generally accepted project management processes. This position will also be responsible for business planning, customer interface, any Sensus sub contracts, network deployment, network optimization, systems acceptance testing, and customer acceptance.
- B. Interaction with all levels of the CLB organization (field to executive level), supervision of on-site Sensus personnel and/or Sensus sub-contractor personnel assigned to the project.
- C. Periodic reviews of the FlexNet system, development of a maintenance scheduled and operational tests to ensure system performance.
- D. The Sensus PM will develop and deliver to the CLB AMI Program Manager a project plan in Microsoft Project. The schedule is to be incorporated in to the CLB integrated project plan
- E. Providing information regarding Sensus standard APIs, and other best practices as they relate to the standard operation of the FlexNet AMI network.
- F. Providing relevant technical manuals or documentation referencing available standard Application Programming Interfaces (APIs) or other Sensus-recommended interface methods with the FlexNet network.

Phase VI – Sensus Professional Services and Integration Support

Part of the successful implementation of the AMI system will include integration into other third-party CLB systems. Sensus will provide support for integrations to third party platforms through its Professional Services department. All work performed by Sensus Professional Services will be performed on a fee basis based on the specific work to be performed. All work performed shall be defined by a separate Statement of Work which shall be subject to approval by both Sensus and CLB.

Sensus Professional Services resources are also available on an hourly basis for workshops, meetings or other planning purposes. An hourly rate for these resources is outlined in ***Exhibit B: Schedule of Values***.

Sensus Solution Architect and Development Services

1. The Sensus Solution Architect may provide architecture and design oversight for the overall customer AMI solution.
2. Subject to a mutually agreed Statement of Work, the Sensus Solution Architect shall provide support to CLB and any third-party vendors to facilitate integrations with the Sensus Regional Network Interface (RNI) using FlexNet standard Application Programming Interfaces (APIs).
3. If any custom integrations and/or enhancements are needed, the Sensus Solution Architect and developers will design, code, test and deliver this software.

Business Architect

1. The Business Architect works with the client to define and/or modify business processes to meet the requirements of the end solution.
2. The Business Architect works with the client to identify any gaps between the business requirements and the technical capabilities of the solution.
3. The Business Architect works with the solution architect and development team to create solutions for any gaps identified.

OVERALL PROGRAM MANAGEMENT

A. CLB Responsibilities

1. CLB shall be responsible for the Integration of the FlexNet AMI network to other 3rd party platforms.
2. Sensus shall engage with Sensus Professional Services department if support is needed from Sensus for integrating the FlexNet system to third-party platforms.

Assumptions:

1. CLB shall have responsibility for the overall management of the AMI project implementation including the coordination of all activities, schedules, and changes to any scopes of work.
2. CLB shall have primary responsibility for integration of the FlexNet AMI network to other CLB owned systems.
3. Sensus shall provide CLB access to subject matter experts (SMEs) for support with general technology issues, information and guidance on network best practices, proper network operation, and FCC compliance.
4. The Sensus Project Manager (PM) and Application Engineering Manager (AEM) shall act as SMEs, and will coordinate access to, and the involvement of, other SMEs as necessary throughout the deployment phases.
5. Direct support for integrations, integration testing between FlexNet and third-party platforms, custom development work, or business process consulting requested of Sensus shall be performed by Sensus Professional Services department and shall be defined by a separate Statement of Work and fee schedule.

Exhibit B - Schedule of Values

This Exhibit B, Schedule of Values, is expressly attached to and part of the Agreement and is subject to all the limitations of the Agreement, including limits on warranties and limits on damages. The payment milestones below correspond to specific milestones set forth in Exhibit A: Statement of Work. These payment milestones apply to the deployment of the FlexNet network infrastructure, including the Basestations, the Regional Network Interface (RNI) and the Harris MDMS and CustomerConnect environments to be hosted by Sensus.

Phase I – FlexNet AMI Network Design and Installation: \$302,500

Payment Milestone	Amount
Delivery of FlexNet Basestations @ \$17,500 per Basestation (11 sites identified – actual total number of Basestations required will be determined by the final network design.) Sensus shall invoice Customer at shipment.	\$192,500
Basestation Installation and Certification @ \$10,000 per Basestation (11 Sites identified – actual total number of Basestations will be determined by the final network design.) Sensus shall invoice Customer upon certification of the Basestations.	\$110,000
Total	\$302,500

Phase IIa – Regional Network Interface (RNI) Installation

Payment Milestone	Amount
Purchase and preparation of FlexNet Regional Network Interface (RNI) server hardware, software and third-party software licenses required for the FlexNet RNI system in the Sensus Data Center. Sensus shall invoice Customer on the Effective Date of the Agreement.	\$26,500
Sensus shall invoice Customer for configuration of the FlexNet RNI upon completion of RNI-1 and RNI-2 Systems Acceptance Test scripts described in Exhibit D. This fee represents the first year of the Regional Network Interface (RNI) Software as a Service fee. This fee shall increase to \$112,230 per year as noted below starting on the first anniversary of the Effective Date, provided that all Sensus Systems Acceptance Testing defined in Exhibit D has been successfully completed. If the System Acceptance Test is not completed before the first anniversary of the Effective Date, the fee shall remain at \$54,558 until System Acceptance Test is completed. If System Acceptance Test is completed after the first	\$54,558

anniversary of the Effective Date and later reached prior to the next anniversary of the Effective Date, Sensus shall invoice Customer the prorated difference of the increased \$112,230 fee.	
Total	\$81,058

Phase IIb – Hosting Services for Harris Software Applications

Payment Milestone	Amount
Purchase and preparation of the Harris MeterSense environment (server hardware and third-party software including Operating System and Database). Sensus shall invoice Customer on the Effective Date of the Agreement.	\$26,500
Purchase and preparation of the Harris CustomerConnect environment (server hardware and third-party software including Operating System). Sensus shall invoice Customer on the Effective Date of the Agreement.	\$12,000
Annual Harris MeterSense environment hosting fee. Sensus shall invoice Customer upon completion of Host-1 Systems Acceptance Test described in Exhibit D.	\$55,000
Annual Harris CustomerConnect hosting fee. Sensus shall invoice Customer upon completion of Host-2 Systems Acceptance Test described in Exhibit D.	\$35,000
Total	\$128,500

Phase IIc – Network Operations Support

Payment Milestone	Amount
Sensus shall invoice Customer upon delivery of notification of the spectrum manager lease to the FCC naming CLB as lessee of Sensus' licensed spectrum within the CLB Service Territory. . This fee applies only to first year of the project, and shall increase to \$69,000 per year as listed below in "Ongoing Fees".	\$17,250
Total – Year 1	\$17,250

Phase III – Meters, Parts, and SmartPoint Registers Ordering / Delivery / Installation

CLB shall purchase Meters, Meter Parts, and SmartPoint Registers from Sensus as specified in the procurement requirements, following established lead times. Installation of metering equipment will be completed by CLB and CLB Installation Contractor, according to installation training provided by Sensus. Quantities below are approximate. Sensus shall invoice CLB upon shipment.

Item	Estimated Quantity	Unit Price	Amount
Trimble 900LE Handheld	8	\$2,650.00	\$21,200
Sensus Command Link	8	\$341.00	\$2,728
Sensus R275 Gas Meter – Meter Only	50,000	\$54.00	\$2,700,000
Sensus R415 Gas Meter – Meter Only	3,853	\$130.00	\$500,890
Sensus 100GM – All Versions - SmartPoint Only	112,446	\$39.85	\$4,480,973.10
Sensus 200GM – SmartPoint Only	2,246	\$39.85	\$89,503.10
Sensus 300GM – SmartPoint Only	36,128	\$39.85	\$1,439,700.80
Sensus 400GM – SmartPoint Only	631	\$39.85	\$25,145.35
Sensus 500GM – SmartPoint Only	391	\$39.85	\$15,581.35
Sensus 600GM – SmartPoint Only	974	\$110.00	\$107,140.00
Sensus 700GM – SmartPoint Only	808	\$145.00	\$117,160.00
Sensus R496 Residential Regulator	15,000	\$31.00	\$465,000.00
Total			N/A

WATER Item	Estimated Quantity	Unit Price	Amount
5/8" SRII Low Lead Bronze Meter	32	\$94.01	\$3,008.32
3/4" Full (9" Laying Length) SRII Low Lead Bronze Meter	1,928	\$117.62	\$ 226,771.36
1" SRII Low Lead Bronze Meter	561	\$148.19	\$ 83,134.59
1 1/2" OMNI R2 Meter – integral strainer (13" Laying Length)	138	\$280.00	\$ 38,640.00
2" OMNI R2 Meter – with strainer (17" Laying Length)	332	\$328.00	\$ 108,896.00
5/8" iPERL Solid State Meter with integrated register	32	\$88.65	\$2,836.80
3/4" (9" Laying Length) iPERL Solid State Meter with integrated register	1,928	\$99.60	\$192,028.80
1" iPERL Solid State Meter with integrated register	561	\$129.72	\$72,772.92
Armorcast model A6000484T-H7 (20K Load Rating w/ H-7 Sensus Option)	2,398	\$32.17	\$77,143.66
Armorcast model A6001947T-H7 (20K Load Rating w/ H-7 Sensus Option)	672	\$75.52	\$50,759.44
Sensus 520M Pit Set SmartPoint	3,039	\$77.25	\$234,762.75
Total			N/A

Phase IV – Training

Sensus shall invoice CLB upon completion of the relevant training session below.

Payment Milestone	Amount
Sensus shall provide an Integrated Training Plan for CLB approval at the beginning of the network deployment.	\$0
Sensus Shall provide two (2) Introductory Training Sessions (four hours each) and associated training materials (\$750 per session)	\$1,500
Sensus Shall provide four (4) Administrator Training Sessions (four hours each) and associated training materials (\$750 per session)	\$3,000
Sensus shall provide four (4) Operators Training Sessions (four hours each) and associated training materials (\$750 per session)	\$3,000
Sensus shall provide two (2) Installer/Meter Technician Training Sessions (four hours each) and associated training materials (\$750 per session)	\$1,500
Sensus shall distribute a Training Evaluation Form at the conclusion of each training session and review the responses with CLB identifying any training gaps or deficiencies. Sensus will also work with CLB to address associated issues.	\$0
Sensus shall obtain preapproval for all travel and bill CLB for all reasonable expenses at cost.	TBA
Total	\$9,000

Phase V – Project Management and Application Engineering Manager Support

Sensus Project Management and Application Engineering Manager	Amount
Sensus shall provide a Project Manager (PM) and Application Engineering Manager (AEM) to support the implementation and configuration of the FlexNet system. These services shall be invoiced monthly in arrears based on the pricing schedule below. Travel expenses shall be billed separately at cost.	
Sensus Project Manager – Alpha Phase – ½ time @\$12,500 per month for approximately 5 months.	\$62,500
Sensus Application Engineering Manager – Alpha Phase - ¼ time @\$6,250 per month for approximately 5 months.	\$31,250
Sensus Project Manager – Beta Phase – ¼ time @ \$6,250 per month for approximately 5 months.	\$31,250

Sensus Application Engineering Manager – Beta Phase – ¼ time @\$6,250 per month for approximately 5 months.	\$31,250
Total	\$156,250

Phase VI – Sensus Professional Services and Integration Support

Payment Milestone	Amount
Sensus will provide support for integration of the FlexNet system to third party systems through its Professional Services department. Sensus will provide a Solutions Architect for the first 10 weeks of the project to participate in integration workshops and integration scoping activity. Any specific integration activities shall be governed by a separate Statement of Work. The Solutions Architect services shall be invoiced monthly in arrears. Travel expenses shall be billed separately at cost.	
Sensus Solutions Architect - 10 hours per week (1/4 time) @225 per hour for 10 weeks.	\$22,500
Total	\$22,500

Optional Sensus Professional Services	Amount
CLB may choose to purchase additional Professional Services throughout the project as needed according to the hourly rates listed below. Alternately, such additional services may be governed by a separate Statement of Work. Sensus shall invoice CLB upon completion of the work. Travel expenses shall be invoiced separately at cost.	
Sensus Project Manager	\$175 per hour
Sensus Application Engineering Manager	\$175 per hour
Sensus Solutions Architect	\$225 per hour
Sensus Business Architect	\$225 per hour
Sensus RF Technician	\$144 per hour
Total	TBD

Ongoing Fees

CLB agrees to pay the following Ongoing Fees, beginning on the anniversary of the initial invoice for each applicable item as defined in the above payment milestone(s) and continuing on each anniversary thereafter through the Term. Ongoing Fees are excluded from the Escalator and are subject to a 3% increase over the prior year's invoice beginning on the Trigger Date..

Ongoing Fees	Amount
Annual Network Operations Support. This Ongoing Fee shall apply starting on the anniversary of the first Network Operations Support invoice defined in Phase IIc above.	\$69,000
Annual FlexNet Regional Network Interface (RNI) Software as a Service Fees. This Ongoing Fee shall apply starting on the anniversary of the first Software as a Service invoice defined in Phase IIa above, or upon completion of the System Acceptance Test, whichever comes later.	\$112,230
Ongoing Fee for Harris MeterSense Hosting	\$55,000
Ongoing Fee for Harris CustomerConnect Hosting	\$35,000
Annual Total	\$271,230

Exhibit C - FCC Application

This Exhibit C, FCC Application, is expressly attached to and part of the Agreement and is subject to all the limitations of the Agreement, including limits on warranties and limits on damages

In order for Sensus to apply to the FCC on the Customer's behalf for a spectrum manager lease, Customer must complete the information below in boxes one (1) through ten (10) and certify via authorized signature. Customer's signature will indicate that Customer authorizes Sensus to file the spectrum manager lease notification on FCC Form 608 with the Customer as spectrum Lessee, and if Customer does not already have one, ownership disclosure information on FCC Form 602.

1	Customer/Lessee Name:		
Attention To:		Name of Real Party in Interest:	
Street Address:			City:
State:	Zip:	Phone:	
Fax:	Email:		

Is Customer contact information same as above? Yes No (If No, complete box 2 below)

Additional Customer/Lessee Contact Information

2	Company Name:		
Attention To:			
Street Address:			City:
State:	Zip:	Phone:	
Fax:	Email:		

3	Customer/Lessee is a(n) (Select one): <input type="checkbox"/> Individual <input type="checkbox"/> Unincorporated Association <input type="checkbox"/> Trust <input type="checkbox"/> Government Entity <input type="checkbox"/> Corporation <input type="checkbox"/> Limited Liability Company <input type="checkbox"/> General Partnership <input type="checkbox"/> Limited Partnership <input type="checkbox"/> Limited Liability Partnership <input type="checkbox"/> Consortium <input type="checkbox"/> Other _____
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4	FCC Form 602: FCC File Number of Customer's Form 602 Ownership Information: _____. If Customer has not filed a Form 602, Sensus will file one for Customer. Please complete questions 5, 6, and 7 below if Customer does <u>not</u> have a Form 602 on file. Customer must complete items 8, 9 and 10 irrespective of whether Customer has an ownership report on file.
----------	--

5	Customer Tax ID:
----------	------------------

Individual Contact For FCC Matters

6	Please designate one individual (the Director of Public Works or similar person) who is responsible to the FCC for the operation of the FlexNet radio system. This person would need to obtain his or her own personal FRN (FCC Registration Number) by going to the link below and completing the individual FRN registration.	
Name		
Title:		
Email:		Phone:

Ownership Disclosure Information

7

If Customer/Lessee is a government entity, list the names of the Mayor and all Council Members below, as well as verify citizenship and ownership interests in any entity regulated by the FCC. Such ownership must be disclosed where a mayor/council member owns 10% or more, directly or indirectly, or has operating control of any entity subject to FCC regulation. If any answer to Ownership question is Yes, or any answer to Citizenship question is No, provide an attachment with further explanation.

	US Citizen?	Ownership Disclosure?
Mayor:	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Council Member:	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Council Member:	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Council Member:	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Council Member:	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Council Member:	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Council Member:	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Council Member:	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Council Member:	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
Council Member:	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No

8

Alien Ownership Questions (if the answer is Yes, provide an attachment explaining the circumstances)

1) Is the Customer/Lessee a foreign government or the representative of any foreign government?	<input type="checkbox"/> Yes <input type="checkbox"/> No
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9

Basic Qualification Information

1) Has the Customer or any party to this application had any FCC station authorization, license, or construction permit revoked or had any application for an initial, modification or renewal of FCC station authorization, license or construction permit denied by the Commission?	<input type="checkbox"/> Yes <input type="checkbox"/> No
2) Has the Customer or any party to this filing, or any party directly or indirectly controlling the Customer or any party to this filing ever been convicted of a felony by any state or federal court?	<input type="checkbox"/> Yes <input type="checkbox"/> No
3) Has any court finally adjudged the Customer or any party directly or indirectly controlling the Customer guilty of unlawfully monopolizing or attempting to unlawfully monopolize radio communication, directly or indirectly, through control of manufacture or sale of radio apparatus, exclusive traffic arrangement, or any other means or unfair methods of competition?	<input type="checkbox"/> Yes <input type="checkbox"/> No

10

Customer/Lessee Certification Statements

1) The Customer/Lessee agrees that the Lease is not a sale or transfer of the license itself.	<input type="checkbox"/> Yes
2) The Customer/Lessee acknowledges that it is required to comply with the Commission's Rules and Regulations and other applicable law at all times, and if the Customer/Lessee fails to so comply, the Lease may be revoked, cancelled, or terminated by either the Licensee or the Commission.	<input type="checkbox"/> Yes
3) The Customer/Lessee certifies that neither it nor any other party to the Application/Notification is subject to a denial of Federal benefits pursuant to Section 5301 of the Anti-Drug Abuse Act of 1988, 21 U.S.C § 862, because of a conviction for possession or distribution of a controlled substance (See Section 1.2002(b) of the rules, 47 CFR § 1.2002(b), for the definition of "party to the application" as used in this certification.)	<input type="checkbox"/> Yes
4) The Customer/Lessee hereby accepts Commission oversight and enforcement consistent with the license and lease authorization. The Lessee acknowledges that it must cooperate fully with any investigation or inquiry conducted either by the Commission or the Licensee, allow the Commission or the Licensee to conduct on-site inspections of transmission facilities, and suspend operations at the direction of the Commission or the Licensee and to the extent that such suspension of operation would be consistent with applicable Commission policies.	<input type="checkbox"/> Yes
5) The Customer/Lessee acknowledges that in the event an authorization held by a Licensee that has associated with it a spectrum leasing arrangement that is the subject of this filing is revoked, cancelled, terminated, or otherwise ceases to be in effect, the Customer/Lessee will have no continuing authority to use the leased spectrum and will be required to terminate its operations no later than the date on which the Licensee ceases to have any authority to operate under the license, unless otherwise authorized by the Commission.	<input type="checkbox"/> Yes
6) The Customer/Lessee agrees the Lease shall not be assigned to any entity that is not eligible or qualified to enter into a spectrum leasing arrangement under the Commission's Rules and Regulations.	<input type="checkbox"/> Yes
7) The Customer/Lessee waives any claim to the use of any particular frequency or of the electromagnetic spectrum as against the regulatory power of the United States because of the previous use of the same, whether by spectrum lease or otherwise.	<input type="checkbox"/> Yes
8) The Customer/Lessee certifies that it is not in default on any payment for Commission licenses and that it is not delinquent on any non-tax debt owed to any federal agency.	<input type="checkbox"/> Yes

The Customer/Lessee certifies that all of its statements made in this Application/Notification and in the schedules, exhibits, attachments, or documents incorporated by reference are material, are part of this Application/Notification, and are true, complete, correct, and made in good faith. The Customer/Lessee shall notify Sensus in writing in the event any information supplied on this form changes.
Type or Printed Name of Party Authorized to Sign

First Name:	MI:	Last Name:	Suffix:
Title:		Customer Name:	
Signature:			Date:
FAILURE TO SIGN THIS APPLICATION MAY RESULT IN DISMISSAL OF THE APPLICATION AND FORFEITURE OF ANY FEES PAID.			
WILLFUL FALSE STATEMENTS MADE ON THIS FORM OR ANY ATTACHMENTS ARE PUNISHABLE BY FINE AND/OR IMPRISONMENT (U.S. Code, Title 18, Section 1001) AND/OR REVOCATION OF ANY STATION LICENSE OR CONSTRUCTION PERMIT (U.S. Code, Title 47, Section 312(a)(1)) AND/OR FORFEITURE (U.S. Code Title 47, Section 503).			

Exhibit D – System Acceptance Testing

This Exhibit D, System Acceptance Testing, is expressly attached to and part of the Agreement and is subject to all the limitations of the Agreement, including limits on warranties and limits on damages. This section describes the System Acceptance Testing for the Sensus FlexNet System. The precise timing of this testing will be determined by the project team.

Test Script ID:	Relates to:	Exit criteria for:
RNI-1	FlexNet Field Network and Regional Network Interface (RNI) Availability	Alpha
RNI-2	FlexNet Regional Network Interface (RNI)	Alpha
Host-1	Harris MeterSense Environment Availability	Alpha
Host-2	Harris CustomerConnect Environment Availability	Beta
BA-1	FlexNet Base Station Availability	Alpha
BA-2	FlexNet Base Station Availability	Alpha
BA-3	FlexNet Base Station Availability	Alpha
BA-4	FlexNet Base Station Availability	Alpha
GA-1	FlexNet Network Performance and Gas Meter/Module Performance	Beta
GA-2	Water Meter/Module Two-Way Operation	Beta
GA-3	Gas Meter/Module Remote Reading Accuracy	Beta
WA-1	FlexNet Network Performance and Water Meter/Module Performance	Beta
WA-2	Water Meter/Module Two-Way Operation	Beta
WA-3	Water Meter/Module Remote Reading Accuracy	Beta
RGS-1	Remote Gas Shutoff Operation	Beta

FlexNet Regional Network Interface (RNI) Acceptance Tests

The purpose of the FlexNet Regional Network Interface (RNI) tests is to verify the readiness and availability of the FlexNet system end-to-end, from the SmartPoints to the Regional Network Interface. These tests will confirm that the system is receiving and storing data from Gas and Water SmartPoint modules, and that the system is able to export that data in standard CMEP format to a directory where it will be available for the MeterSense system and/or other systems.

Test Script RNI-1: FlexNet Regional Network Interface Availability Test	
Test Performed On (AMI):	Date:
Overview:	This test will confirm if the FlexNet network is successfully installed and configured to receive Water and Gas meter data from FlexNet SmartPoint modules.
Function:	FlexNet system reports will be used to verify that data is flowing from FlexNet SmartPoint modules in the field to the Regional Network Interface.
Goal in Context:	This test will confirm that the FlexNet network is available for installation of additional FlexNet SmartPoint modules.
Preconditions:	At least one FlexNet Base Station must be installed and certified by Sensus, and a test population of FlexNet Gas and Water modules must be deployed and must meet the criteria established by Sensus for an Available Meter.
Results for RNI-1: FlexNet Regional Network Interface Availability Test	
Post Condition Success:	Post Condition Failure:
The FlexNet Communications Statistics reports show that data is being successfully reported by FlexNet Gas and Water SmartPoints, and that that data is available within the FlexNet Regional Network Interface for export via CMEP reports.	The FlexNet Communications Statistics reports do not show that data is being successfully reported by FlexNet Gas or Water SmartPoints, and/or is not available in the FlexNet Regional Network Interface for export via CMEP reports.
Verification will be provided by examining the "Communications Statistics" reports in the FlexNet Regional Network Interface (RNI) to confirm that the Regional Network Interface (RNI) database is receiving and storing meter data, and also by confirming that the CMEP reports are being generated with Gas and Water data in the appropriate directory within the Sensus Data Center.	
Post Condition Result:	

Test Script RNI-2: CMEP Report Delivery Test	
Test Performed On (AMI):	Date:
Overview:	Test the CMEP report delivery to the specified directory at the scheduled report time.
Function:	The Daily CMEP export will be created in the specified directory within 1 hour of the scheduled file delivery time.
Goal in Context:	Validates the successful delivery of the Daily CMEP export process from the FlexNet RNI.
Preconditions:	FlexNet Base Stations must be installed and certified by Sensus, and FlexNet Regional Network Interface (RNI) must be configured and available as determined by the FlexNet Regional Network Interface Availability Test results. CMEP interface between Sensus RNI and Logic MDMS must be complete.

Results for CMEP File Delivery Test	
Post Condition Success:	Post Condition Failure:
CMEP Daily export records contain data from at least 98.5% of meters in the test, and CMEP reports are delivered within 1 hour of the scheduled delivery time to the specified directory.	CMEP Daily export records do not contain data from at least 98.5% of meters in the test, and/or CMEP reports are not delivered within 1 hour of the scheduled delivery time to the specified directory.
Post Condition Result:	

Completion of the Regional Network Interface (RNI) Tests

Each of the above tests shall be successfully completed for the Regional Network Interface Tests to be satisfied. Upon successful completion of each of the above described tests, Sensus shall promptly provide written notice to CLB of RNI availability and certification. CLB shall acknowledge the receipt of the certification test results, and in turn provide formal written notice accepting the FlexNet RNI, clearly indicating the date that RNI acceptance was completed.

Harris MeterSense and CustomerConnect Environment Hosting Acceptance Testing

The purpose of the Harris and CustomerConnect Environment tests is to verify the availability of the Harris server environments in the Sensus Data Center for installation of the Harris applications. Harris shall be responsible for installing and configuring the MeterSense and CustomerConnect applications and this shall not be a pre-condition for Host-1 and Host-2 Systems Acceptance Test completion.

Test Script Host-1: MeterSense Environment Availability	
Test Performed On (AMI):	Date:
Overview:	Confirm the availability of the Harris MeterSense environment in the Sensus Data Center to allow Harris to install the MeterSense application.
Function:	Sensus will confirm in writing that the Harris MeterSense environment is available to Harris for installation of the MeterSense application. Harris shall inspect the environment and confirm that the environment meets the agreed MeterSense environment specifications.
Goal in Context:	Confirms the availability of the MeterSense environment, which shall allow Harris to install and configure the Harris MeterSense application.
Preconditions:	CLB must pay the Harris MeterSense setup fee as outlined in Exhibit B – Schedule of Payments before Sensus can install and configure the environment.

Results for MeterSense Environment Availability

Post Condition Success:

Sensus and Harris confirm in writing the availability of the Harris MeterSense environment in the Sensus Data Center.

Post Condition Result:

Test Script Host-2: CustomerConnect Environment Availability

Test Performed On (AMI):

Date:

Overview:

Confirm the availability of the Harris CustomerConnect environment in the Sensus Data Center to allow Harris to install the CustomerConnect application.

Function:

Sensus will confirm in writing that the Harris CustomerConnect environment is available to Harris for installation of the CustomerConnect application. Harris shall inspect the environment and confirm that the environment meets the agreed CustomerConnect environment specifications.

Goal Context:

in

Confirms the availability of the CustomerConnect environment, which shall allow Harris to install and configure the Harris CustomerConnect application.

Preconditions:

CLB must pay the Harris CustomerConnect setup fee as outlined in Exhibit B – Schedule of Payments before Sensus can install and configure the environment.

Results for CustomerConnect Environment Availability

Post Condition Success:

Sensus and Harris confirm in writing the availability of the Harris MeterSense environment in the Sensus Data Center.

Post Condition Result:

FlexNet Base Station Acceptance Tests

The purpose of these tests is to verify that the FlexNet Base Stations are properly installed and available for FlexNet network operation.

Within thirty (30) days after completion of RF commissioning of the applicable FlexNet Base Station, the Parties shall begin the FlexNet Base Station Acceptance Test on the applicable FlexNet Base Station. CLB and Sensus will work diligently in good faith to undertake reasonable efforts to complete the FlexNet Base Station Acceptance Test no later than thirty (30) days after commencement of testing.

The FlexNet Base Station Acceptance Test shall consist only of the following subtests:

- BA-1: BASE STATION Power Output and Noise Test
- BA-2: Antenna System VSWR Check
- BA-3: TGBMENU RX Noise Floor Check
- BA-4: Base Station Antenna Connected Receiver Check

Upon satisfactory completion of each of the above tests, each Base Station will be deemed to have passed the FlexNet Base Station Acceptance Test. Each test is described in detail below.

Sub-Test Specifications

Test Script BA-1: Base Station Power Output and Noise Test	
Test Performed On (AMI): M400	Date:
Overview:	Verifies the Power Amplifier is performing within specification.
Function:	Out
Goal Context:	in Output power must be greater than 39 dBm (9 Watts) at the PA; 37 dBm (5 Watts) at the cabinet.
Test Procedures (to be performed by Sensus RF Technician):	<p>Locate the SMA to SMA cable that connects the RF OUT jack on the transceiver to the PA IN jack. Disconnect one end of this cable (your pick) so that the transceiver exciter signal is no longer fed to the Base Station PA. This keeps the PA from keying unnecessarily as you connect the rest of the cables up avoiding damage to both yourself and the Base Station.</p> <p>Connect the power attenuator, and spectrum analyzer to the Type N connector on the base of the M400B cabinet as shown in Figure 5-1. A power meter can be used in lieu of the spectrum analyzer if a spectrum analyzer is not available. Make sure the power meter can handle an input signal level of at least 100 mW (+20 dBm).</p> <p>Determine what frequency the Base Station under test will be transmitting on. Set the M400 transmitter frequency to the proper frequency.</p> <p>Set the spectrum analyzer center frequency to the frequency you programmed into the M400 in the last step.</p> <p>Set the spectrum analyzer as follows:</p> <ul style="list-style-type: none"> ◦Auto Couple Bandwidth ◦Reference Level = 20 dBm ◦Span = 1 MHz. <p>If a power meter is used, disregard the last step and configure the power meter to display a maximum signal of 100 mW. The meter should have enough sensitivity to measure 1 mW as some installations will incur some loss at the antenna connection point.</p> <p>Connect the cable you disconnected earlier between the RF OUT and PA IN jack on the front panel of the transceiver.</p> <p>Connect a USB cable to the Diagnostic Port on the front of the transceiver.</p> <p>Connect the other end of the cable to your PC.</p> <p>Set up a terminal emulation program and the VCP ports as described in Appendix B. Set up your TTY program to connect using the first COM port with the settings <i>115200</i></p>

8N1 in order to communicate with the Linux terminal.

Login to the M400 transceiver using a terminal emulation program. Type **root** at the login prompt.

Type the password when the M400 returns the password prompt, then press the **Enter** key.

Stop the M400 processes using the `tgbbprog stop` command

```
M400-dev6:~# tgbbprog stop
tgbbprog: Stopping the TGB daemons...
M400-dev6:~#
```

Issue the command `xmit/t0/f xxxxxxxx` through the RF card diagnostic terminal, where xxxxxxxx is the test frequency, for example 940625000

Measure the output power on the spectrum analyzer or power meter.

Add 30 dB to the reading on the spectrum analyzer; it should read between +43 and +46 dBm on a M400 cabinet.

Take the reading in milliwatts on the power meter (or press the dBm button if you have one) and record it.

Solve this equation to get the power reading in milliwatts to dBm: **dBm = 10 * LOG10(power reading in milliwatts)**

◦For example, if the power meter reads 15 mW, then $\text{dBm} = 10 * \text{LOG}_{10}(15) = 10 * 1.17 = 11.7 \text{ dBm}$. You then add 30 dB to that to obtain the output power in dBm.

◦If your power meter only reads out in watts, multiply the reading in Watts by 100 before you plug it into the equation above.

If low power is measured, check all the cables and connections. If this does not fix the issue, call your IT Project Manager or Sensus Engineering for further assistance.

End the CW command and put the RF card back to a known state by issuing the reset command. The RF card will display the following after reboot:

Results for BA-1: Base Station Power Output and Noise

Post Condition Success:

Post Condition Failure:

Output power must be greater than 39 dBm (9 Watts) at the PA; 37 dBm (5 Watts) at the cabinet.

The post-condition success criteria are not satisfied.

Post Condition Result:

Test Script BA-2: Antenna System VSWR Check	
Test Performed On (AMI): M400	Date:
Overview:	Antenna System VSWR Check
Function:	Confirm the VSWR of the antenna and its coax connection
Goal in Context:	Confirm VSWR for each antenna and coax that connects to the Base Station. VSWR must be less than 1.5:1.
Test Procedures (to be performed by Sensus RF Technician):	<p>Remove each coax at the antenna connection point (i.e. at the connection to the Base Station, rack, or duplexer antenna input) in the equipment room or enclosure and measure the VSWR for each antenna cable with the antenna or terminating device installed.</p> <p>When checking the VSWR, verify that the Base Station transmitter is off or disabled. The Base Station output power is at a level that may cause injury if the operator is exposed to the RF transmitted signal.</p>
Results for BA-2: Antenna System VSWR Check	
Post Condition Success:	Post Condition Failure:
Confirm VSWR for each antenna and coax that connects to the Base Station. VSWR must be less than 1.5:1.	The post-condition success criteria are not satisfied.
Post Condition Result:	

Test Script BA-3: TGBMENU RX Noise Floor Check	
Test Performed On (AMI): M400	Date:
Overview:	TGBMENU RX Noise Floor Check
Function:	Confirm reported noise floor for each CPC channel.
Goal in Context:	<p>Noise reading will vary. Record the lowest, highest, and average readings.</p> <p>If noise floor on CPC slot 2 is >15dB the site must be surveyed for interference.</p> <p>See the BASE STATION Verification and Certification Manual.</p>
Preconditions:	Connect the antenna and all necessary coaxial cables to the Base Station.

Results for BA-3: TGBMENU RX Noise Floor Check	
Post Condition Success:	Post Condition Failure:
Confirm reported noise floor for each CPC channel is < 16 dB	The post-condition success criteria are not satisfied.
Post Condition Result:	

Test Script BA-4: Base Station Antenna Connected Receiver Check	
Test Performed On (AMI): M400	Date:
Overview:	Base Station Antenna Connected Receiver Check
Function:	Confirm the reception of messages for all modes on their assigned frequencies for this installation.
Goal in Context:	Successful reception of each mode and the CPC channel it was received on
Preconditions:	Connect the antenna and all necessary coaxial cables to the Base Station.
Results for BA-4: Base Station Antenna Connected Receiver Check	
Post Condition Success:	Post Condition Failure:
Successful reception of each mode and the CPC channel it was received on: <ul style="list-style-type: none"> • Normal Mode • C&I (Priority) Mode • Boost Mode 	The post-condition success criteria are not satisfied.
Post Condition Result:	

Completion of FlexNet Base Station Acceptance Test

Each of the above tests shall be successfully completed for the FlexNet Base Station Acceptance Test to be satisfied. Upon successful completion of each of the above described tests, Sensus shall promptly provide written notice to CLB of Base Station availability and certification. CLB shall acknowledge the receipt of the certification test results, and in turn provide formal written notice accepting the FlexNet Base Stations, clearly indicating the date that Base Station acceptance was completed.

Gas Module Acceptance Tests

The purpose of the Gas Module tests is to confirm the proper operation of the FlexNet Gas modules themselves, and ensure that the FlexNet network is properly configured to Gas Module operation.

Testing will be limited to Available Meters as defined in the Agreement.

Test Script GA-1: 72 Hour Gas Meter Interval Read Success	
Test Performed On (AMI):	Date:
Overview:	This test will determine proper performance of the FlexNet system by examining the Read Interval Success (RIS) rate of a test population of Gas meters.
Function:	At a minimum, the system must provide at least 98.5% average hourly Read Interval Success (RIS) for at least 98.5% of Available Meters in the test after 72 hours have passed.
Goal in Context:	This test will confirm the expected performance of the FlexNet network overall, as well as the performance of the individual FlexNet Gas SmartPoint modules.
Preconditions:	The FlexNet Base Stations must be installed and certified by Sensus, and the test population of FlexNet modules must be deployed and must meet the criteria established by Sensus for an Available Meter.
Results for GA-1: 72 Hour Gas Meter Interval Read Success	
Post Condition Success:	Post Condition Failure:
Average Read Interval Success is equal to or greater than 98.5% for at least 98.5% of meters in the test after 72 hours have passed.	Average Read Interval Success is not equal to or greater than 98.5% for at least 98.5% of meters in the test after 72 hours have passed.
<p>Verification will be provided by examining the "Communications Statistics" report in the FlexNet Regional Network Interface (RNI) for each meter in the test. The number of meters providing greater than 98.5% average of Read Intervals after 72 hours will be divided by the number of total meters in the test. This resulting value will be multiplied by 100 to determine the percentage of test meters that meet or exceed the Read Interval Success criteria.</p> <p>Example of Communications Statistics report below. The "RIS %" column will be used to determine the average Read Interval Success (RIS) for each individual meter.</p>	

Communication Statistics »
All Cities All Customers

Showing items 1 - 19 of 58734 Last Updated: Monday, September 08, 2014 4:51:48 PM

Reports	FlexNet ID	Meter Type	RIS %	Raw %	24Hr Gap Ont	Dir SNR	Bud SNP	Bud Noise	Sig P-A	Dir SNR 2S	Twr Dist Mi	Twr Rep	Metr Ri	Xmit Int	Mode
58734			98.55	84.041640	1	24.234999	0	0	5.301835E	4.4726704	3.8228429	0.9999	1 HR	4 HR	
Report	15470125	W	100.00	90.445861	0	23.658536	0	?	3.4512177	4	3.0756483	1	1 HR	5 HR	BM/NM (1:4)
Report	15489054	W	100.00	93.034528	0	48.341465	0	?	4.7378082	4	1.2134944	1	1 HR	4 HR	Normal
Report	15489126	W	100.00	90.909088	0	28.869863	0	?	3.8424643	2	1.6481987	1	1 HR	4 HR	Normal
Report	15489196	W	100.00	75.392689	0	18.540000	0	?	11.720001	5	2.1907451	1	1 HR	4 HR	Normal
Report	15489198	W	100.00	89.947090	0	26.310606	0	?	5.6439400	3	2.0911257	1	1 HR	4 HR	Normal
Report	15489204	W	100.00	93.157897	0	29.633136	0	?	6.7929000	6	0.917965	1	1 HR	4 HR	Normal
Report	15489206	W	100.00	97.156395	0	35.427028	0	?	8.7189176	7	1.5239432	1	1 HR	4 HR	Normal
Report	15489324	W	100.00	94.680854	0	25.986110	0	?	15.069442	10	2.6945858	1	1 HR	4 HR	Normal
Report	15489326	W	100.00	70.256408	0	15.602563	0	?	6.9871787	7	3.0663481	1	1 HR	4 HR	Normal
Report	15489328	W	100.00	93.298965	0	23.775148	0	?	4.3550301	4	4.6808233	1	1 HR	4 HR	Normal
Report	15489340	W	100.00	65.306121	1	18.420000	0	?	15.729900	8	2.899193	1	1 HR	4 HR	Normal
Report	15489342	W	100.00	87.830689	0	23.683452	0	?	7.9424477	8	3.4854131	1	1 HR	4 HR	Normal
Report	15489346	W	100.00	95.049507	0	33.378883	0	?	3.4782595	4	3.1836279	1	1 HR	4 HR	Normal
Report	15489350	W	100.00	85	0	24.793548	0	?	5.5354843	5	1.9411048	1	1 HR	4 HR	Normal
Report	15489354	W	100.00	89.583335	0	27.714284	0	?	1.9761887	1	1.279528	1	1 HR	4 HR	Normal
Report	15489360	W	100.00	91.794868	0	29.424837	0	?	8.6797370	7	3.2902687	1	1 HR	4 HR	Normal
Report	15489506	W	100.00	22.818792	22	?	0	?	?	?	5.1643281	1	1 HR	5 HR	BM/mP/NM (1:1:3)
Report	15489690	W	100.00	47.904190	6	15.557143	0	?	2.9285697	3	3.2919288	1	1 HR	4 HR	Normal
Report	15489724	W	100.00	76.923080	0	34.829544	0	?	4.8977280	5	1.5178734	1	1 HR	5 HR	BM/mP/NM (1:1:3)

 Records Per Page: 1 2 3 4 5 6 7 8 9 10 next last
Post Condition Result:
Test Script GA-2: Successful Two-Way Operation for Gas Modules
Test Performed On (AMI):
Date:
Overview:

This test will determine the ability of the FlexNet system to deliver an on-demand reading from a Gas meter. At least ten (10) meters in Middle of Minute (MoM) communications mode will be selected for this test.

Function:

For each of the ten (10) selected meters, navigate to the Commands Tab in the RNI IMIP page and perform an on-demand reading.

Goal in Context:

This test will determine if on-demand readings can successfully be retrieved from gas meters on the FlexNet system.

Preconditions:

The test meters must be in Middle of Minute (MoM) communications mode, and must meet the criteria established by Sensus for an Available Meter.

Results for GA-2: Two-Way Operation for Gas Modules
Post Condition Success:
Post Condition Failure:

On-Demand reading from at least eight (8) of the

On-Demand reading from fewer than eight (8) of

ten (10) test meters.	the ten (10) test meters.
-----------------------	---------------------------

Test Script GA-3: Gas Meter Measurement (Remote Read Accuracy)	
Test Performed On (AMI):	Date:
Overview:	This test will compare the time stamp at the SmartPoint Module, with that determined through the RNI software to confirm accuracy of readings and time stamps being used during validation, and therefore for billing purposes.
Function:	For each of the ten (10) selected meters, navigate to the IMIP page on the RNI and select a reading along with a time stamp. This reading will be compared to a manual reading taken directly from the meter visually at the same time as the AMI reading.
Goal in Context:	This test will determine the accuracy of the AMI reading as compared to the Manual reading taken at the same time.
Preconditions:	CLB will randomly select ten (10) Gas Meters to perform this test that meet the Sensus criteria for an Available Meter. AMI readings are recorded at the top of the hour. The manual readings to compare to the AMI readings shall be collected at the top of the hour.
Results for GA-3: Gas Meter Measurement (Remote Read Accuracy)	
Post Condition Success:	Post Condition Failure:
The data acquired through a manual read of the meter register differs from the data presented by an on-demand read taken at the same time by equal or less than +/-0.1%.	The data acquired through a manual read of the meter register differs from the data presented by an on-demand read taken at the same time by greater than +/-0.1%.
Post Condition Result:	

Completion of the Gas Module Acceptance Tests

Upon successful completion of each of the above described tests, Sensus shall promptly provide written notice to CLB of Gas Module acceptance test completion. CLB shall acknowledge the receipt of the test results, and in turn provide formal written notice that the Gas Module tests have been successfully completed, clearly indicating the date that acceptance was achieved.

Water Module Acceptance Tests

The purpose of the Water Module tests is to confirm the proper operation of the FlexNet Water modules, and ensure that the FlexNet network is properly configured to support Water Module operation.

Testing will be limited to Available Meters as defined in the Agreement.

Test Script WA-1: Water Meter 72 Hour Interval Read Success	
Test Performed On (AMI):	Date:
Overview:	This test will determine proper performance of the FlexNet system by examining the Read Interval Success (RIS) rate of a test population of Water meters.
Function:	At a minimum, the system must provide at least 98.5% average hourly Read Interval Success (RIS) for at least 98.5% of Available Meters in the test.
Goal in Context:	This test will confirm the expected performance of the FlexNet network overall, as well as the performance of the individual FlexNet Water SmartPoint modules.
Preconditions:	The FlexNet Base Stations must be installed and certified by Sensus, and the test population of FlexNet modules must be deployed and must meet the criteria established by Sensus for an Available Meter.
Results for WA-1: Water Meter 72 Hour Interval Read Success	
Post Condition Success:	Post Condition Failure:
Average Read Interval Success is equal to or greater than 98.5% for at least 98.5% of meters in the test after 72 hours have passed.	Average Read Interval Success is not equal to or greater than 98.5% for at least 98.5% of meters in the test after 72 hours have passed.
Verification will be provided by examining the "Communications Statistics" report in the FlexNet Regional Network Interface (RNI) for each meter in the test. The number of meters providing greater than 98.5% average of Read Intervals after 72 hours will be divided by the number of total meters in the test. This resulting value will be multiplied by 100 to determine the percentage of test meters that meet or exceed the Read Interval Success criteria.	

Communication Statistics »

 All Cities All Customers

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Reports	FlexNet ID	Meter Type	RIS %	Raw %	24Hr Gap Cnt	Dir SNR	Bud SNR	Bud Noise	Sig P-A	Dir SNR 25	Twr Dist Mi	Twr Rep	Metr Ri	Xmit Int	Mode
58734			98.55	84.041640	1	24.234999	0	0	5.301835E	4.4726704	3.8228429	0.9999	1 HR	4 HR	
Report	15470125	W	100.00	90.445861	0	23.658536	0	?	3.4512177	4	3.0756483	1	1 HR	5 HR	BM/NM (1:4)
Report	15489054	W	100.00	93.034828	0	48.341465	0	?	4.7378082	4	1.2134944	1	1 HR	4 HR	Normal
Report	15489126	W	100.00	90.909088	0	28.869063	0	?	3.8424643	2	1.6481987	1	1 HR	4 HR	Normal
Report	15489196	W	100.00	75.392668	0	18.840000	0	?	11.720001	5	2.1907451	1	1 HR	4 HR	Normal
Report	15489198	W	100.00	89.947090	0	26.310606	0	?	5.6439400	3	2.0911257	1	1 HR	4 HR	Normal
Report	15489204	W	100.00	93.157897	0	29.633136	0	?	6.7929000	6	0.917965	1	1 HR	4 HR	Normal
Report	15489206	W	100.00	97.156395	0	35.427028	0	?	8.7189178	7	1.5239432	1	1 HR	4 HR	Normal
Report	15489324	W	100.00	94.680354	0	25.986110	0	?	15.069442	10	2.6945858	1	1 HR	4 HR	Normal
Report	15489326	W	100.00	70.256409	0	15.602563	0	?	6.9871787	7	3.0663481	1	1 HR	4 HR	Normal
Report	15489328	W	100.00	93.298935	0	29.775148	0	?	4.3550301	4	4.6808233	1	1 HR	4 HR	Normal
Report	15489340	W	100.00	65.306121	1	19.420000	0	?	15.729996	8	2.899193	1	1 HR	4 HR	Normal
Report	15489342	W	100.00	87.830639	0	23.683452	0	?	7.9424477	8	3.4854131	1	1 HR	4 HR	Normal
Report	15489346	W	100.00	95.049507	0	33.378883	0	?	3.4782599	4	3.1536279	1	1 HR	4 HR	Normal
Report	15489350	W	100.00	85	0	24.793548	0	?	5.5354843	5	1.9411048	1	1 HR	4 HR	Normal
Report	15489354	W	100.00	89.583335	0	27.714254	0	?	1.9761887	1	1.279528	1	1 HR	4 HR	Normal
Report	15489360	W	100.00	91.794868	0	29.424837	0	?	8.6797370	7	3.2902687	1	1 HR	4 HR	Normal
Report	15489506	W	100.00	22.818792	22	?	0	?	?	?	5.1643281	1	1 HR	5 HR	BM/mP/NM (1:1:3)
Report	15489690	W	100.00	47.904190	6	15.557143	0	?	2.9285697	3	3.2919288	1	1 HR	4 HR	Normal
Report	15489724	W	100.00	76.923080	0	34.829544	0	?	4.8977280	5	1.5178734	1	1 HR	5 HR	BM/mP/NM (1:1:3)

 Records Per Page: 1 2 3 4 5 6 7 8 9 10
Post Condition Result:
Test Script WA-2: Successful Two-Way Operation for Water Modules
Test Performed On (AMI):
Date:
Overview:

This test will determine the ability of the FlexNet system to deliver an on-demand reading from a Water meter. At least ten (10) meters in Middle of Minute (MoM) communications mode will be selected for this test.

Function:

For each of the ten (10) selected meters, navigate to the Commands Tab in the RNI IMIP page and perform an on-demand reading.

Goal in Context:

This test will determine if on-demand readings can successfully be retrieved from water meters on the FlexNet system.

Preconditions:

The test meters must be in Middle of Minute (MoM) communications mode, and must meet the criteria established by Sensus for an Available Meter.

Results for WA-2: Water Module Two-Way Operation	
Post Condition Success:	Post Condition Failure:
On-Demand reading from at least eight (8) of the ten (10) test meters.	On-Demand reading from fewer than eight (8) of the ten (10) test meters.
Post Condition Result:	

Test Script WA-3: Water Meter Measurement (Remote Read Accuracy)	
Test Performed On (AMI):	Date:
Overview:	This test will compare the time stamp at the SmartPoint Module, with that determined through the RNI software to confirm accuracy of readings and time stamps being used during validation, and therefore for billing purposes.
Function:	For each of the ten (10) selected meters, navigate to the IMIP page on the RNI and select a reading along with a time stamp. This reading will be compared to a manual reading taken directly from the meter visually at the same time as the AMI reading.
Goal in Context:	This test will determine the accuracy of the AMI reading as compared to the Manual reading taken at the same time.
Preconditions:	CLB will randomly select ten (10) Water Meters to perform this test that meet the Sensus criteria for an Available Meter. AMI readings are recorded at the top of the hour. The manual readings to compare to the AMI readings shall be collected at the top of the hour.
Results for WA-3: Water Meter Measurement (Remote Read Accuracy)	
Post Condition Success:	Post Condition Success:
The data acquired through a manual read of the meter register differs from the data presented by an on-demand read taken at the same time by equal or less than +/-0.1%.	The data acquired through a manual read of the meter register differs from the data presented by an on-demand read taken at the same time by equal or less than +/-0.1%.
Post Condition Result:	

Sensus FlexNet Remote Gas Shutoff (RGS) Acceptance Tests

The purpose of the Remote Gas Shutoff tests is to confirm the proper operation of the FlexNet Remote Gas Shutoff (RGS) devices themselves, and ensure that the FlexNet network is properly configured to support

RGS operation.

Testing will include the shutoff of Gas service via the FlexNet network as well as local shutoff using a wireless handheld device within 100 feet of the RGS device. The testing will also include reopening of Gas service locally using the wireless handheld within 100 feet of the RGS device.

Testing will be limited to "Available" RGS devices in the system. Available devices are those that are properly installed and configured according to Sensus guidelines, properly attached to a serviceable meter, and within coverage of the installed FlexNet Basestations.

Test Script RGS-1: Remote Gas Shutoff (RGS) Module Operation	
Test Performed On (AMI):	Date:
Overview:	This test will confirm that a Sensus FlexNet Remote Gas Shutoff (RGS) Module can be successfully operated via the FlexNet network (remotely) and via handheld device (locally).
Function:	The shutoff operation shall be successfully performed both via the FlexNet network remotely (initiated from the FlexNet Regional Network Interface (RNI)), and locally (within 100 feet) via a handheld device. The reopening of the service shall be demonstrated locally within 100 feet using a handheld device only.
Goal in Context:	This test will confirm that the FlexNet Remote Shutoff (RGS) module can be operated as specified by Sensus.
Preconditions:	The FlexNet Base Stations and Regional Network Interface (RNI) shall be installed, configured and certified by Sensus as available prior to this test. RGS units shall be installed on and "Available" as specified by Sensus.
Results for RGS-1: Remote Gas Shutoff (RGS) Module Operation	
Post Condition Success:	Post Condition Failure:
The RGS successfully completes a shutoff operation via the FlexNet network remotely and also locally using handheld device within 100 feet of the RGS module. The RGS successfully completes a reopen operation locally using a handheld device within 100 feet of the RGS module.	The RGS does not successfully completes a shutoff operation via the FlexNet network remotely and also locally using handheld device within 100 feet of the RGS module. The RGS does not successfully complete a reopen operation locally using a handheld device within 100 feet of the RGS module.
Post Condition Result:	

Additional Acceptance Testing Criteria:

All properly installed Field Devices that are identified in the Certified Propagation Study shall register on the RNI at least once. If a Field Device does not register on the RNI, Customer shall first perform field troubleshooting procedures to attempt to identify the reason why the Field Device did not register on the RNI. If Customer is unable to reasonably determine the cause, Sensus shall provide troubleshooting services and recommend available remedies that will enable the Field Device to register with the RNI (the "Communication Remedy"). Upon Sensus identifying the Communication Remedy, Customer shall be responsible, at Customer's sole expense, to implement the Communication Remedy. If the Customer elects to not implement the Communication Remedy, the Field Device shall not be required to communicate with the RNI and shall not be considered an Available Meter. All obligations of each party in this section shall cease upon completion of System Acceptance Testing.

Exhibit E - Software as a Service

This Exhibit E, Software as a Service, is expressly attached to and part of the Agreement and is subject to all the limitations of the Agreement, including limits on warranties and limits on damages.

1. Description of Services

This exhibit contains the details of the Software as a Service that Sensus shall provide to Customer if both: (i) pricing for Software as a Service has been provided to Customer; and (ii) Customer is current in its payments for Software as a Service.

2. **Termination of Software as a Service.** Customer shall have the option at any time after full deployment but before the end of the Term to terminate the Software as a Service by giving Sensus one hundred twenty (120) days prior written notice. Upon delivery of the notice, Customer shall purchase the necessary RNI(s) and shall pay all applicable fees, including any unpaid Software as a Service fees. Such notice, once delivered to Sensus, is irrevocable. Should Customer elect to terminate the Software as a Service, Customer acknowledges that: (a) Customer will purchase the RNI hardware; (b) Customer will purchase the necessary software license(s); and (c) Sensus will cease to provide the Software as a Service.

3. Software as a Service Definition.

A. **“Software as a Service”** means only the following services:

1. Use of RNI hardware, located at Sensus’ or a third party’s data center facility (as determined by Sensus), that is necessary to operate the AMI System.
2. Initial training (not to exceed five days) on the use of the AMI System and all product documentation, including any updates to product documentation.
3. Providing Patches, Updates, and Upgrades to latest Sensus FlexWare Software releases.
4. Providing remote firmware maintenance for FlexNet Base Stations and SmartPoint Modules (Customer must provide IP access to each FlexNet Base Station in order to perform secure shell (SSH) functions).
5. Providing certain third party software required to operate the RNI (specifically, Microsoft SQL server, Microsoft Windows Server, Red Hat Linux OS, and other Bundled Software).
6. Providing secure Web portal access to the hosted FlexWare Software application for the Customer (Customer system administrator grants RNI access to authorized Customer personnel as they are added).
7. If requested, submitting a “daily reading file” in standard file format containing hourly consumption reads and all available alarms collected by the AMI System, including exception reports, such as zero consumption reads and non-responding meters (including traceability to the meter location when the meter installer provides the location information).

8. 24x7x365 server and network monitoring and trouble ticket generation, advanced security monitoring and preventative maintenance monitoring using diagnostic software tools.
 9. Network optimization after the final propagation study and FlexNet Base Station site plan is verified by Sensus, and network tuning of endpoints deployed in the Service Territory.
 10. Performing daily off-site vaulting of encrypted backup tapes containing one year of history for auditing purposes.
 11. Providing current Sensus fixed base reporting software (for up to 50,000 SmartPoint Modules) for up to thirteen (13) months of hourly data retention for basic reporting, route processing and querying functionality.
 12. Providing telephone support consistent with the Sensus Technical Support as set forth in Section 9 of the Agreement.
 13. Providing "hot failover" disaster recovery solution within twenty four (24) hours.
 14. Providing FlexNet Base Station parts repair or replacement, at Sensus' discretion. This excludes field repair labor and field maintenance labor.
- B. **"Software as a Service"** does not include any of the following services:
1. Normal periodic processing of accounts or readings for Customer's billing system for billing or other analysis purposes (other than daily file delivery).
 2. Field labor to troubleshoot any SmartPoint Modules in the field in meter populations that have been previously accepted.
 3. First response labor to troubleshoot the FlexNet Base Station(s) or other field network equipment.
 4. Parts or labor required to repair damage to any Equipment that is the result of a Force Majeure event.

If an item is not listed in subparagraphs (1) or (2) above, such item is excluded from the Software as a Service and is subject to additional pricing.

4. Further Agreements

A. System Uptime Rate

1. Sensus (or its contractor) shall host the FlexWare Software application on computers owned or controlled by Sensus (or its contractors) and shall provide Customer access to the hosted FlexWare Software application via internet or point to point connection (i.e., Hosted-Access use), according to the terms below. Sensus endeavors to maintain an average System Uptime Rate equal to ninety-nine (99.0) percent per Month (as defined below). The System Uptime Rate shall be calculated as follows:

$$\text{System Uptime Rate} = 100 \times \frac{(\text{TMO} - \text{Total Non-Scheduled Downtime minutes in the Month})}{\text{TMO}}$$

B. Calculations

1. "**Targeted Minutes of Operation**" or "**TMO**" means total minutes in the applicable month ("Month") minus the Scheduled Downtime in the

- Month.
2. **“Scheduled Downtime”** means the number of minutes during the Month, as measured by Sensus, in which access to the FlexWare Software is scheduled to be unavailable for use by Customer due to planned system maintenance. Sensus shall provide Customer notice (via email or otherwise) at least seven (7) days in advance of commencement of the Scheduled Downtime.
 3. **“Non-Scheduled Downtime”** means the number of minutes during the Month, as reasonably measured by Sensus, in which access to FlexWare Software is unavailable for use by Customer due to reasons other than Scheduled Downtime or the Exceptions, as defined below (e.g., due to a need for unplanned maintenance or repair).
- C. **Exceptions.** “Exceptions” mean the following events:
1. Force Majeure;
 2. Emergency Work, as defined below; and
 3. Lack of Internet Availability, as described below.
- D. **Emergency Work.** In the event that Force Majeure, emergencies, dangerous conditions or other exceptional circumstances arise or continue during TMO, Sensus shall be entitled to take any actions that Sensus, in good faith, determines is necessary or advisable to prevent, remedy, mitigate, or otherwise address actual or potential harm, interruption, loss, threat, security or like concern to any of the Host Systems or the FlexWare Software (“Emergency Work”). Such Emergency Work may include, but is not limited to: analysis, testing, repair, maintenance, re-setting and other servicing of the hardware, cabling, networks, software and other devices, materials and systems through which access to and/or use of the FlexWare Software by Customer is made available (the “Host Systems”). Sensus shall endeavor to provide advance notice of such Emergency Work to Customer when practicable and possible.
- E. **Lack of Internet Availability.** Sensus shall not be responsible for any deterioration of performance attributable to latencies in the public internet or point-to-point network connection operated by a third party. Customer expressly acknowledges and agrees that Sensus does not and cannot control the flow of data to or from Sensus’ networks and other portions of the Internet, and that such flow depends in part on the performance of Internet services provided or controlled by third parties, and that at times, actions or inactions of such third parties can impair or disrupt data transmitted through, and/or Customer’s connections to, the Internet or point-to-point data connection (or portions thereof). Although Sensus will use commercially reasonable efforts to take actions Sensus may deem appropriate to mitigate the effects of any such events, Sensus cannot guarantee that such events will not occur. Accordingly, Sensus disclaims any and all liability resulting from or relating to such events.
5. **Host Site-Security.** Although Sensus may modify such security arrangements without consent or notice to Customer, Customer acknowledges the following are

the current arrangements regarding physical access to and support of the primary hardware components of the Host Systems:

- A. The computer room(s) in which the hardware is installed is accessible only to authorized individuals.
- B. Power infrastructure includes one or more uninterruptible power supply (UPS) devices and diesel generators or other alternative power for back-up electrical power.
- C. Air-conditioning facilities (for humidity and temperature controls) are provided in or for such computer room(s) and can be monitored and adjusted for humidity and temperature settings and control. Such air systems are supported by redundant, back-up and/or switch-over environmental units.
- D. Such electrical and A/C systems are monitored on an ongoing basis and personnel are available to respond to system emergencies (if any) in real time.
- E. Dry pipe pre-action fire detection and suppression systems are provided.
- F. Data circuits are available via multiple providers and diverse paths, giving access redundancy.

6. **Responsibilities of Customer**

- A. Customer shall promptly pay all Software as a Service fees.
- B. Customer may not (i) carelessly, knowingly, intentionally or maliciously threaten, disrupt, harm, abuse or interfere with the FlexWare Software, Host Systems or any of their functionality, performance, security or integrity, nor attempt to do so; (ii) impersonate any person or entity, including, but not limited to, Sensus, a Sensus employee or another user; or (iii) forge, falsify, disguise or otherwise manipulate any identification information associated with Customer's access to or use of the FlexWare Software application.
- C. The provisioning, compatibility, operation, security, support, and maintenance of Customer's hardware and software ("Customer's Systems") is exclusively the responsibility of Customer. Customer is also responsible, in particular, for correctly configuring and maintaining (i) the desktop environment used by Customer to access the FlexWare application hosted by Sensus; and (ii) Customer's network router and firewall, if applicable, to allow data to flow between Customer's Systems and Sensus' Host Systems in a secure manner via the public Internet.
- D. Each of Customer's authorized users will receive a username and password upon completion of the applicable Sensus registration process ("Authorized Users"). Such usernames and passwords will allow Authorized Users to access the FlexWare Software application. Customer shall be solely responsible for maintaining the security and confidentiality of each user ID and password pair associated with Customer's account, and Sensus will not be liable for any loss, damage or liability arising from Customer's account or any user ID and password pairs associated with Customer. Customer is fully responsible for all acts and omissions that occur through the use of Customer's account and any user ID and password pairs. Customer agrees

(i) not to allow anyone other than the Authorized Users to have any access to, or use of Customer's account or any user ID and password pairs at any time; (ii) to notify Sensus immediately of any actual or suspected unauthorized use of Customer's account or any of such user ID and password pairs, or any other breach or suspected breach of security, restricted use or confidentiality; and (iii) to take the Sensus-recommended steps to log out from and otherwise exit the FlexWare Software application and Host Systems at the end of each session. Customer agrees that Sensus shall be entitled to rely, without inquiry, on the validity of the user accessing the FlexWare Software application through Customer's account, account ID, usernames or passwords.

7. **Disaster Recovery.** In the case of a disaster and loss of access to or use of the FlexWare Software application, Sensus shall use commercially reasonable efforts to restore operations at the same location or at a backup location within twenty four (24) hours. Customer acknowledges and agrees that such an event may result in partial or degraded service when restored. The pre-disaster/loss level of service shall be restored as a soon as commercially reasonable.

Exhibit F - Hosting of Harris Software

This Exhibit F, Hosting of Harris Software, is expressly attached to and part of the Agreement and is subject to all the limitations of the Agreement, including limits on warranties and limits on damages.

1. Description of Services

- A. The Hosting Services described shall be provided only to the extent Customer pays for the applicable service as described in Exhibit B. In the event Customer elects to pay for one service, Sensus shall only provide that particular service. Sensus shall have no obligation to provide a service where Customer is not current on payment as described in Exhibit B. For clarity, if Customer elects to pay for MeterSense but not CustomerConnect, Sensus shall only supply Hosting Services for MeterSense and not for CustomerConnect.
- B. **“Hosting Services”** means only the following services:
1. Use of MeterSense and CustomerConnect server hardware located at Sensus’ or a third party’s data center facility (as determined by Sensus) that is necessary to operate the MeterSense Meter Data Management System (MDMS) and CustomerConnect web portal.
 2. Providing certain third party software required to operate the MeterSense MDMS and CustomerConnect web portal servers (specifically, Windows Operating System, Oracle Database, bundled 3rd party software);
 3. Providing Web access to MeterSense and CustomerConnect software applications for Customer.
 4. 24x7x365 server and network monitoring, trouble ticket generation, advanced security monitoring and preventative maintenance monitoring of the MeterSense servers using diagnostic software tools. Sensus will also notify Customer if a trouble ticket is generated by the Hosting Center.
 5. Performing daily off-site vaulting of encrypted backup tapes containing one year of history for auditing purposes.
 6. Providing Disaster Recovery solution within twenty four (24) hours.
 7. Providing alerts and information in a timely manner (1 hour) to Customer when service status changes from “available” to “down” or “loss of service.”
- C. **“Hosting Services”** does not include any of the following services:

1. Normal periodic processing of accounts or readings for Customer billing system for billing or other analysis purposes.
2. Harris Software Licenses, Harris Software Licenses Fees, Harris Annual Software Support Fees, Harris Software Updates or Upgrades to the MeterSense MDMS core software or MeterSense add-on modules.
3. Software or technical support for the Harris applications or add-on modules. Support for the Harris software applications is to be provided by Harris and is not part of the Agreement.

2. Further Agreements

A. System Uptime Rate

1. Sensus (or its contractor) shall host the MeterSense and CustomerConnect Software applications on computers owned or controlled by Sensus (or its contractors) and shall provide Customer access to the hosted MeterSense and CustomerConnect Software application via internet or point to point connection (i.e., Hosted-Access use), according to the terms below. Sensus endeavors to maintain an average System Uptime Rate equal to ninety-nine percent (99.0%) per Month (as defined below). The System Uptime Rate shall be calculated as follows:

$$\text{System Uptime Rate} = 100 \times \frac{\text{TMO} - \text{Total Non-Scheduled Downtime minutes in the Month}}{\text{TMO}}$$

2. Calculations

- 2.1. "Targeted Minutes of Operation" or "TMO" means total minutes in the applicable month ("Month") minus the Scheduled Downtime in the Month.
- 2.2. "Scheduled Downtime" means the number of minutes during the Month, as measured by Sensus, in which access to the MeterSense or CustomerConnect Software is scheduled to be unavailable for use by Customer due to planned system maintenance. Sensus shall provide Customer notice (via email or otherwise) at least seven (7) days in advance of commencement of the Scheduled Downtime.
 - 2.2.1. Sensus shall limit any scheduled downtime for hardware or software environment maintenance to less than 4 hours in total duration from incident initiation until closure. Sensus does not control, and is not responsible for, the scheduled downtime for

maintenance or upgrades of the Harris applications or add-on modules. Maintenance of the MeterSense application and other hosted Harris software applications is provided by Harris and is covered by separate commercial agreement between Harris and Customer. For clarity, maintenance of the Harris applications or add-on modules resulting in down time of the hosted services, regardless of length, shall be considered "Scheduled Downtime" for the purpose of calculating the System Uptime Rate.

2.2.2. "Non-Scheduled Downtime" means the number of minutes during the Month, as measured by Sensus, in which access to MeterSense or CustomerConnect Software is unavailable for use by Customer due to reasons other than Scheduled Downtime or the Exceptions, as defined below (e.g., due to a need for unplanned maintenance or repair). Sensus shall provide Customer with a notice (via email or otherwise) within one (1) hour of Sensus learning of the outage.

3. **Exceptions.** "Exceptions" mean the following events:
 - 3.1. Force Majeure;
 - 3.2. Emergency Work, as defined below; and
 - 3.3. Lack of Internet Availability, as described below.
 - 3.4. Updates, enhancements, patches or other application changes initiated by the MeterSense or CustomerConnect software application shall not impact the downtime statistics related to the hardware environment, operating system, or database environment provided by Sensus.

4. **Emergency Work.** In the event that Force Majeure, emergencies, dangerous conditions or other exceptional circumstances arise or continue during TMO, Sensus shall be entitled to take any actions that Sensus, in good faith, determines is necessary or advisable to prevent, remedy, mitigate, or otherwise address actual or potential harm, interruption, loss, threat, security or like concern to any of the Host Systems or the MeterSense and CustomerConnect Software ("Emergency Work"). Such Emergency Work may include, but is not limited to: analysis, testing, repair, maintenance, re-setting and other servicing of the hardware, cabling, networks, software and other devices, materials and systems through which access to and/or use of the MeterSense and CustomerConnect Software by Customer is made available (the "Host Systems"). Sensus shall endeavor to provide advance notice of such Emergency Work to Customer when practicable and possible.

5. **Lack of Internet Availability.** Sensus shall not be responsible for any deterioration of performance attributable to latencies in the public internet or point-to-point network connection operated by a third party. Customer expressly acknowledges and agrees that Sensus does not and cannot control the flow of data to or from Sensus' networks and other portions of the Internet, and that such flow depends in part on the performance of Internet services provided or controlled by third parties, and that at times, actions or inactions of such third parties can impair or disrupt data transmitted through, and/or Customer's connections to, the Internet or point-to-point data connection (or portions thereof). Although Sensus will use commercially reasonable efforts to take actions Sensus may deem appropriate to mitigate the effects of any such events, Sensus cannot guarantee that such events will not occur. Accordingly, Sensus disclaims any and all liability resulting from or relating to such events.

B. **Host Site-Security.** Although Sensus may modify such security arrangements without consent or notice to Customer, Customer acknowledges the following are the current arrangements regarding physical access to and support of the primary hardware components of the Host Systems:

1. The computer room(s) in which the hardware is installed is accessible only to authorized individuals.
2. Power infrastructure includes one or more uninterruptible power supply (UPS) devices and diesel generators or other alternative power for back-up electrical power.
3. Air-conditioning facilities (for humidity and temperature controls) are provided in or for such computer room(s) and can be monitored and adjusted for humidity and temperature settings and control. Such air systems are supported by redundant, back-up and/or switch-over environmental units.
4. Such electrical and A/C systems are monitored on an ongoing basis and personnel are available to respond to system emergencies (if any) in real time.
5. Dry pipe pre-action fire detection and suppression systems are provided.
6. Data circuits are available via multiple providers and diverse paths, giving access redundancy.
7. Sensus will provide a copy of the annual security audit such as SAS70 or the results of their security scans to Customer to allow for verification of security compliance.

C. **Responsibilities of Customer**

1. Customer shall pay all hosting fees according to pricing schedule provided in Exhibit B of the Agreement.

2. Customer is responsible for the MPLS connection between the Sensus Data Center and Customer's offices.
3. Customer may not (i) carelessly, knowingly, intentionally or maliciously threaten, disrupt, harm, abuse or interfere with the Applications, Host Systems or any of their functionality, performance, security or integrity, nor attempt to do so, (ii) impersonate any person or entity, including, but not limited to, Sensus, a Sensus employee or another user, or (iii) forge, falsify, disguise or otherwise manipulate any identification information associated with Customer's access to or use of the Applications.
4. The provisioning, compatibility, operation, security, support, and maintenance of Customer's Local Area Network and of all hardware, software, network equipment, network connections, network routers, firewall protection, desktop environment, printers, computing devices and other devices, material and information necessary to Customer's access to and use of the Applications as hosted and made available by Sensus ("Customer Systems") are exclusively the responsibility of Customer. Customer is also responsible, in particular, for correctly configuring and maintaining (i) the desktop environment used by Customer to access the Applications hosted by Sensus and (ii) Customer's network router and firewall (should those be in place) to allow data to flow between Customer's Systems and Sensus' Host Systems in a secure manner via the public Internet.
5. Each of Customer's Authorized Users will receive a username and password upon completion of the applicable Sensus registration process ("Authorized Users"). Such usernames and passwords will allow Authorized Users to access the Applications. Customer shall be solely responsible for maintaining the security and confidentiality of each user ID and password pair associated with Customer's account, and Sensus will not be liable for any loss, damage or liability arising from Customer's account or any user ID and password pairs associated with Customer. Customer is fully responsible for all acts and omissions that occur through the use of Customer's account and any of such user ID and password pairs. Customer agrees (i) not to allow any third party (nor any person who is not an Authorized User registered with Sensus) to have any access to, benefit from or use of Customer's account or any of such user ID and password pairs at any time, (ii) to notify Sensus immediately of any actual or suspected unauthorized use of Customer's account or any of such user ID and password pairs, or any other breach or suspected breach of security, restricted use or confidentiality, and (iii) to take the Sensus-recommended steps to log out from and otherwise exit the Applications and Host Systems at the end of each session. Customer agrees that Sensus shall be entitled to rely, without inquiry, upon any access to, or any information provided through access to, the

Applications through Customer's account, account ID, usernames or passwords.

6. Customer accepts and agrees to all end-user license agreements ("EULAs") for all third party software provided directly by Sensus (which may include open source software), as determined by Sensus from time to time. EULAs are available from Sensus upon request. Customer acknowledges that the third party software is subject to various rights and restrictions in favor of or imposed by the licensors thereof and that Customer's use of the third party software is subject to all such rights and restrictions.

- D. **Disaster Recovery.** In the case of a disaster and loss of access to or use of the MeterSense or CustomerConnect Software application, Sensus shall use commercially reasonable efforts to restore operations at the same location or at a backup location within twenty four (24) hours. Customer acknowledges and agrees that such an event may result in partial or degraded service when restored. The pre-disaster/loss level of service shall be restored as a soon as commercially reasonable.

Exhibit G – Performance Warranty

This Exhibit G, Performance Warranty, is expressly attached to and part of the Agreement and is subject to all the limitations of the Agreement, including limits on warranties and limits on damages.

1. **Agreement Terms.** Sensus warrants the performance of the AMI System to Customer as set forth below. This warranty and all products and services sold or otherwise provided by Sensus directly to Customer are pursuant to the terms of the Agreement.
2. **Performance Warranty.** The “Performance Warranty” is as follows:
 - A. **Warranty.** Sensus warrants that the AMI System deployed for CLB meets the performance test standards set forth below in section 3 (“Performance Test Standards”) from the Effective Date until the Warranty End Date. If the AMI System does not meet such Performance Test Standards, then Sensus shall take steps that Sensus deems necessary, to cause the AMI System to satisfy the Performance Test Standards. If such steps include the installation of additional RF Field Equipment, CLB shall pay Sensus in accordance with Schedule of Values (Exhibit B). Such steps may include Sensus’ delivery to the Customer (without charge to the Customer) the hardware for additional RF Field Equipment, provided that all RF Field Equipment shall be located and installed as directed by Sensus. Customer shall have title to all equipment provided pursuant to this subsection (A). Notwithstanding anything to the contrary, Customer shall pay for any Recurrent RF Field Equipment Fees and any Ongoing Fees for all equipment provided pursuant to this subsection (A).
 - B. **Limitations.** The Performance Warranty shall only apply: (i) to the Meter Data; (ii) from the Effective Date until the Warranty End Date; (iii) if Sensus has completed a Certified Propagation Study ; (iv) if CLB is not in breach of the Spectrum Lease terms; (v) if all the Required RF Field Equipment identified in the Certified Propagation Study is installed; (vi) if the Required RF Field Equipment is installed as described in the Certified Propagation Study, including without limitation, in the locations and at the heights identified in the Certified Propagation Study; and (vii) the Required RF Field Equipment is operating and has been maintained to Sensus’ specifications (collectively, the “Requirements”). If any Requirement is not satisfied, then: the Performance Warranty shall not apply during such time that the Requirement is not met. If new and/or different RF Field Equipment locations are required as a result of not meeting any Requirements, Customer agrees to: pay Sensus for the completion of any additional propagation studies; pay Sensus for the additional RF Field Equipment hardware; perform the necessary site preparation; and pay for any Recurrent RF Field Equipment Fees and any Ongoing Fees for all equipment purchased pursuant to this subsection (B). Any equipment

required pursuant to this subsection (B) is added to the definition of Required RF Field Equipment.

3. **Performance Test Standards.**

A. **Generally.**

1. The parties shall mutually agree on specific reading routes (each a "Route"). Each Route will be separately tested with the intent to provide incremental acceptance of distinctly defined geographical areas and populations of meters. Each Route shall contain a statistical sample of Test Units ("Route Units"). Route Units only include the Test Units installed in the applicable Route. For Customers with any combination of water, gas, and electricity Endpoints, the water Endpoints, gas Endpoints, and electricity Endpoints will each be tested separately according to the procedure below. For clarity, a single Route will not have a combination of water, gas, and electricity meters, but it will consist of only water, gas, or electricity Test Units.
2. Before beginning the Performance Test Standards, all Route Units must be installed. CLB shall send written notice to Sensus once the Test Equipment and all Route Units are installed ("Route Deployment"). Such notice shall indicate the date on which the Route Deployment was completed ("Route Deployment Date").
3. Within thirty (30) days, or other mutually accepted timeframe, after the Route Deployment Date, the parties shall begin the Performance Test Standards on the Route. CLB and Sensus shall work in good faith to complete the Performance Test Standards (typically within thirty (30) days after commencement of testing).

B. **Route Read Success Test.**

1. The Route Read Success Test will measure the percentage of Route Units that deliver valid billable meter reads during the Billing Window. The Route Read Success Test only measures reads sent from the Route Units; it does not include on demand reads. The commencement date of the Billing Window shall be agreed by Customer and Sensus.

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

2. If Route Read Success is equal or greater than the Success Percentage during one Billing Window, the Performance Test Standards for that Route has passed. If, CLB disputes the test results, it must notify Sensus within five business days or the test will be deemed as passed. Sensus has no obligation to continue optimizing the system and meeting performance specifications upon successful completion of the Performance Test Standards for each

Route. This process shall continue until all Routes have successfully completed the Performance Test Standards. If Sensus does not successfully complete the Performance Test Standards for the applicable Route, then upon receipt of notice, Sensus shall fulfill its obligations in Section 2 above, and the applicable Route shall be retested within a reasonable time.

3. Upon completion of the Performance Test Standards for all Routes, Customer shall promptly issue written notice to Sensus that either (a) Sensus has not successfully completed the Performance Test Standards for the AMI System; or (b) Sensus has successfully completed the Performance Test Standards for the AMI System and such notice shall state the date on which the Performance Test Standards was successfully completed. If Customer does not issue such notice within five days of completion of the tests, then the Performance Test Standards for the AMI System is automatically deemed successfully passed. If Sensus does not successfully complete the Performance Test Standards, then upon receipt of notice, Sensus shall fulfill its obligations in Section 2 above, and the AMI System shall be retested within a reasonable time.

4. **SENSUS ASSUMES NO LIABILITY FOR COSTS OR EXPENSES ASSOCIATED WITH LOST REVENUE OR WITH THE REMOVAL OR INSTALLATION OF EQUIPMENT. Definitions.** Any terms used in this Performance Warranty as defined terms, and which are not defined herein, shall have the meanings given to those terms in the Agreement.

- A. **"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.
- B. **"Meter Data"** means the specific metering information, including without limitation, locations and antenna heights, provided to Sensus by Customer in writing prior to the earlier of the: (i) Effective Date; and (ii) the date set forth on the propagation study (collectively, the "Data Date"). The parties recognize and agree that the RF Field Equipment site design and build is based on the specific Meter Data provided to Sensus. For clarity, the Meter Data only contains the information specifically provided to Sensus by Customer in writing prior to the Data Date. By way of example only (and not as an exhaustive list), the "Meter Data" includes the latitudes and longitudes of each meter, the location of each module either inside or outside (outside is assumed), and, for meters in pits, whether the radio is installed through or under the lid (the assumption is through the lids). New or different metering locations and/or antenna heights provided after the Data Date are not included as part of the Meter Data.
- C. **"Recurrent RF Field Equipment Fees"** means any and all costs, fees, and expenses required to: (i) warrant the RF Field Equipment; and (ii) install and keep the RF Field Equipment located in the field, including without limitation, site procurement and preparation fees, fees related to building poles or

towers, tower lease fees, costs of electricity supply, and any local, state, or federal government taxes or charges.

- D. "**Success Percentage**" means, of the covered meters in the propagation study, 98.5%.
- E. "**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.
- F. "**Test Units**" means Endpoints that are both: (i) Available Meters throughout the entire test period; and (ii) are covered meters, as depicted on the Certified Propagation Study.
- G. "**Warranty End Date**" means the earlier of: (i) the third anniversary of the Effective Date; (ii) successful completion of the applicable Performance Test Standards; or (iii) the termination or expiration of the Agreement between Customer and Sensus.

Exhibit H – Technical Submittals

This Exhibit H, Technical Submittals, is expressly attached to and part of the Agreement and is subject to all the limitations of the Agreement, including limits on warranties and limits on damages.

Sensus agrees to supply the documentation listed below within 30 days of contract execution. Delivery of the documentation below will be in electronic (.PDF) format.

CLB agrees to keep this documentation confidential and maintain it for the use of CLB personnel only.

Sensus FlexNet Documentation Submittal Package

1. Base Station Alarms (AQG-10006-01).pdf
2. Base Station Receiver Calibration Form.doc
3. Blank Base Station Certification V6.docx
4. Device Manager 3.1 SP3 Reference Manual (ARM-10004-03).pdf
5. Device Manager 3.1 SP3 User Guide (AUG-10021-02).pdf
6. FieldLogic Connect User Guide (v3.1) (AUG-10018-05).pdf
7. FieldLogic Hub Quick Guide (AQG-10068-01).pdf
8. FieldLogic Tools Data Sheet (ADS-10001-01) .pdf
9. FieldLogic Tools Installation Guide (3.x.x) (AIG-10011-09).pdf
10. FieldLogic-Configuring Water SmartPoint Modules (WQG-10008-02).pdf
11. FlexNet Utility Reference Manual (ERM-10002-04).pdf
12. FlexPro Admin Guide_v2.7_Rev 5.pdf
13. FlexPro Installation Guide (AIG-10002-03).pdf
14. FlexPro Reference Manual (ARM-10001-03).pdf
15. FlexPro User Guide (AUG-10003-03).pdf
16. M400 Installation Guide (AIG-10014-03).pdf
17. M400 Quick Guide (AQG-10007-02).pdf
18. M400 Reference (ARM-10009-02).pdf
19. RNI 3.1 SP3 Base Station Security Guide.pdf
20. RNI 3.1 SP3 Extended CMEP Specs Reference Manual.pdf
21. RNI 3.1 SP3 Router Reference Manual.pdf
22. RNI 3.1 SP3 System Security.pdf
23. RNI 3.1SP3 Reports Operation Reference Manual.pdf
24. RNI FlexWare 3.1 SP3 Reference Manual (ARM-10012-05).pdf
25. RNI FlexWare 3.1 SP3 User Guide (AUG-10025-04).pdf

26. RNI_3.1SP3_Multispeak_v4.1_Installation_Guide.pdf
27. RNI_3.1SP3_Multispeakv4_1_Integration_Guide_Section1_Overview.pdf
28. RNI_3.1SP3_Multispeakv4_1_Integration_Guide_Section2_MeterReading.pdf
29. RNI_3.1SP3_Multispeakv4_1_Integration_Guide_Section4_ConnectDisconnect.pdf
30. 100GM Install Instructions.pdf
31. 200GM Install Instructions.pdf
32. 300GM Install Instructions.pdf
33. 300GM Mk I Install Instructions.pdf
34. 400GM Install Instructions.pdf
35. 500GM Install Instructions.pdf
36. 700-900GM Install Instructions.pdf
37. 700GM and 900GM Mounting on Sonix 140122.ppt
38. 800GM Install Instructions.pdf
39. FlexNet SmartPoint Module for Gas Meters Quick Guide.pdf
40. Gas programmer parameters .pdf
41. Gas SmartPoint Module Technical Manual_rev6[1].pdf
42. IN-R-GAS-2310-0612-02-A 700-900GM Install Instructions.pdf
43. MM2275B_rev1_SONIX2000_FLEXNET SMARTPOINT.pdf
44. MM2287B_preliminary_ICSONIX_FLEXNET.pdf
45. NA2W Gas Troubleshooting Guide - FlexPro.v01.pdf
46. Gas -Ribbon vs Pinned.ppt
47. SONIX Complete 130731.ppt
48. Sonix2000 Install Guide GIG-10000-01.pdf
49. Wiring Diagram_Sensus 700-900GM Cutwire (2013-08-16).pdf

Exhibit I – iPERL Water Management System Data Sheet

This Exhibit I, iPERL Water Management System Data Sheet, is expressly attached to and part of the Agreement and is subject to all the limitations of the Agreement, including limits on warranties and limits on damages.

iPERL™ Water Management System

Electromagnetic Flow Measurement System

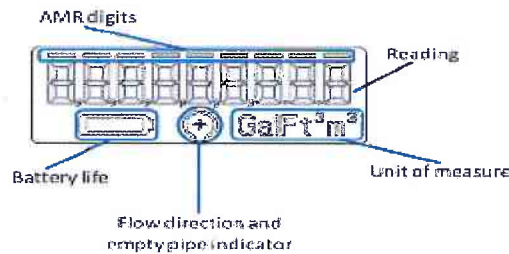
Description

5/8" (DN 15mm), 3/4" (DN 20mm) and 1" (DN 25mm) Sizes

With no moving parts, the Sensus iPERL water management system is based on innovative electromagnetic flow measurement technology. The iPERL system family has an operating range as low as 0.03 gpm (0.007 m³/hr) to 55 gpm.



Electronic Register LCD Display



Features

CONFORMANCE TO STANDARDS

The iPERL system far exceeds the most recent revision of ANSI/AWWA Standard C-700 and C-710 for accuracy and pressure loss requirements. All iPERL systems are NSF/ANSI Standard 61 Annex F and G compliant and tested to AWWA standards.

PERFORMANCE

The patented measurement technology of the iPERL system allows enhanced accuracy ranges at both low and high flows and perpetual accuracy over the life of the product and can be installed horizontally, vertically or diagonally.

CONSTRUCTION

The iPERL system is an integrated unit that incorporates an electronic register and measuring device encased in an external housing. The measuring device is comprised of a composite alloy flowtube with externally-threaded spud ends. Embedded in the flowtube are

magnetic flow sensors. The all electronic, programmable register is hermetically sealed with a tempered glass cover. The iPERL system has a 20 year life cycle, along with a 20 year battery life guarantee.

ELECTRONIC REGISTER

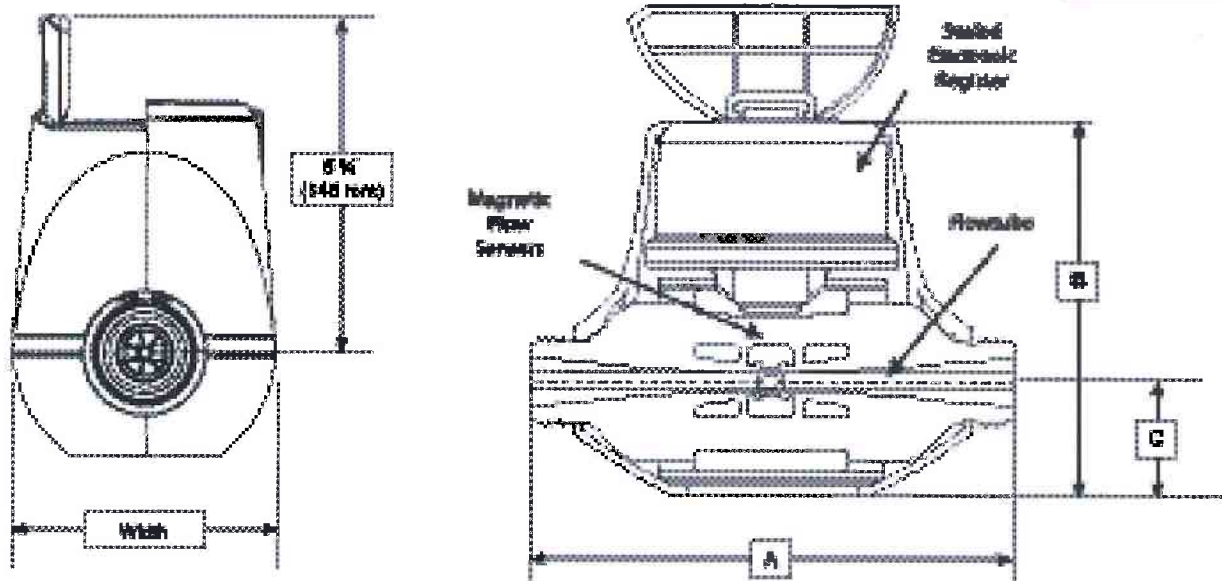
The high resolution 9-digit hermetically sealed electronic register with LCD display was designed to eliminate dirt, lens fogging issues and moisture contamination in pit settings with built in tamper protection. The tempered glass register cover displays readings with the AMR digits highlighted. Direction of flow and units of measure are also easily readable on the register display. The iPERL register features; AMR resolution and unit of measure that are fully programmable, integral customer data logging compatible with UniPro software tools. The large, easy to read display also includes battery life, empty pipe and forward/reverse flow indicators.

TAMPERPROOF FEATURES

The integrated construction of the iPERL system prevents removal of the register to obtain free water. The magnetic tamper and low field alarms will both indicate any attempt to tamper with the magnetic field of the iPERL system.

AMR / AMI SYSTEMS

iPERL systems are compatible with current Sensus AMR/AMI systems.



DIMENSIONS AND NET WEIGHTS

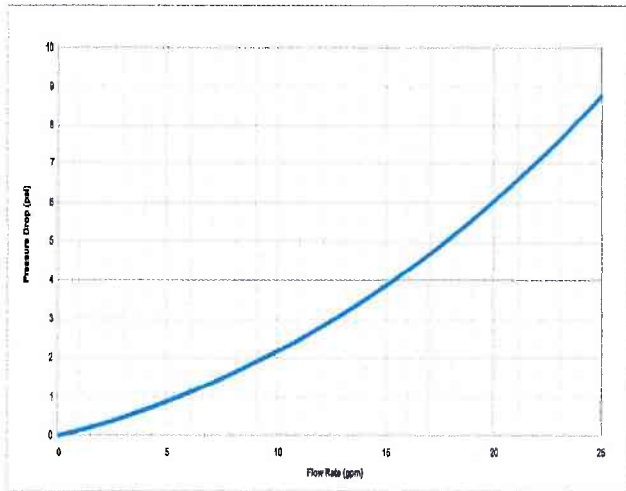
Size	A (lay length)	B	C	Spud Ends	NPSM Thread Size	Width	Net Weight
5/8" (DN 15 mm)	7-1/2" (190 mm)	6-1/10" (155 mm)	1-3/4" (44 mm)	5/8" (15 mm)	3/4" (19 mm)	4-1/2" (114 mm)	3.1 lb. (1.4 kg)
3/4"S (5/8" x 3/4") (DN 20 mm)	7-1/2" (190 mm)	6-1/10" (155 mm)	1-3/4" (44 mm)	3/4" (20 mm)	1" (25 mm)	4-1/2" (114 mm)	3.1 lb. (1.4 kg)
3/4" (DN 20 mm)	9" (229 mm)	6-1/10" (155 mm)	1-3/4" (44 mm)	3/4" (20 mm)	1" (25 mm)	4-1/2" (114 mm)	3.2 lb. (1.5 kg)
1" (DN 25 mm)	10-3/4" (273 mm)	6-1/10" (155 mm)	1-3/4" (44 mm)	1" (25 mm)	1-1/4" (32 mm)	4-1/2" (114 mm)	3.3 lb. (1.6 kg)

SPECIFICATIONS

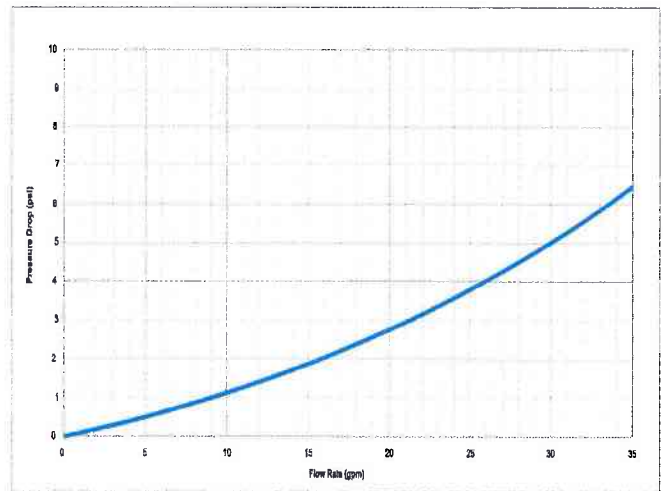
SERVICE	Measurement of potable and reclaim water. Operating temperature range of 33 °F (0.56 °C) - 150 °F (65.6 °C)	MEASUREMENT TECHNOLOGY	Solid state electromagnetic flow
NORMAL OPERATING FLOW RANGE (±1.5%)	5/8" (DN 15mm) size: 0.18 to 25 gpm (0.04 to 5.7 m³/hr) 3/4" (DN 20mm) size: 0.18 to 35 gpm (0.04 to 8.0 m³/hr) 1" (DN 25mm) size: 0.4 to 55 gpm (0.09 to 12.5 m³/hr)	REGISTER	Hermetically sealed, 9-digit programmable electronic register AMR/AMI compatible iPERL system register programmable using the UniPro programming package
LOW FLOW RANGE (±3%)	5/8" (DN 15mm) size: >0.11 gpm (0.025 m³/hr) to <0.18 gpm (0.041 m³/hr) 3/4" (DN 20mm) size: >0.11 gpm (0.025 m³/hr) to <0.18 gpm (0.041 m³/hr) 1" (DN 25mm) size: >0.3 gpm (0.068 m³/hr) to <0.4 gpm (0.09 m³/hr)	MATERIALS	External housing – Thermal plastic Flowtube – Polyphenylene sulfide alloy Electrode – Silver/silver chloride Register cover – Tempered glass
STARTING FLOW	5/8" (DN 15mm) size: 0.03 gpm (0.007 m³/h) 3/4" (DN 20mm) size: 0.03 gpm (0.007 m³/h) 1" (DN 25mm) size: 0.11 gpm (0.025 m³/h)	ALARM DEFAULTS	Alarm Duration – 90 days Leak Duration – 24 hours Datalog Interval – 1 hour Alarm Mask – All alarms reported History Mask – All event types reported
MAXIMUM OPERATING PRESSURE	200 psi (13.8 bar)		



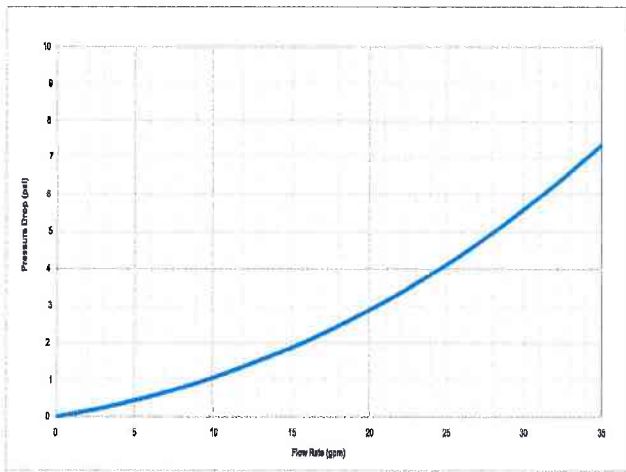
HEADLOSS CURVES



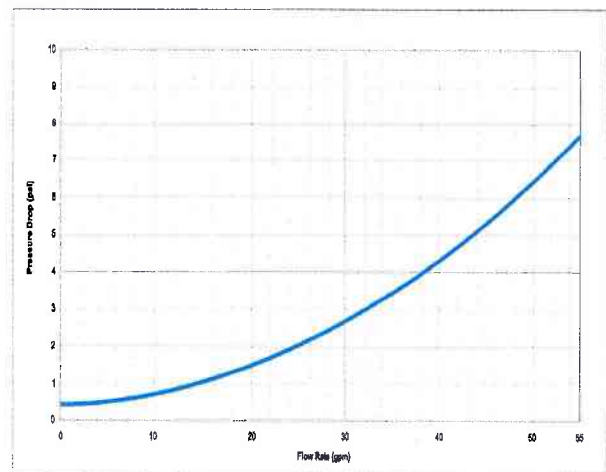
5/8" Headloss Curve



3/4" Short Headloss Curve



3/4" Headloss Curve



1" Headloss Curve

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