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**SEMINOLE COUNTY GOVERNMENT  
AGENDA MEMORANDUM**

**SUBJECT:** RFP-600223-07/GMG - Radio-Based Automatic Reader System for Seminole County Environmental Services Department

**DEPARTMENT:** Administrative Services

**DIVISION:** Purchasing and Contracts

**AUTHORIZED BY:** Frank Raymond

**CONTACT:** Gloria Garcia

**EXT:** 7123

**MOTION/RECOMMENDATION:**

Approve Award of RFP-600223-07/GMG – Radio-Based Automatic Meter Reading for Seminole County Environmental Services Department to Badger Meter Inc., Milwaukee, Wisconsin.

County-wide

Ray Hooper

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**BACKGROUND:**

Staff issued RFI-600153-07/GMG with the purpose of obtaining information to convert the existing meter reading process to an automated radio-based system for meter reading. The County publicly advertised the project and received nine (9) submittals in response to the solicitation. The Evaluation Committee, composed of Alauddin Ali, Technology System Administrator, Information Technology Services; Bob Briggs, Sr. Financial Manager, Environmental Services Department; Robert Dehler, Project Manager II, Environmental Services Department/Water & Sewer; David Gregory, Solid Waste Manager, Environmental Services Department; Tom Owens, Maintenance Technology Supervisor, Environmental Services Department/Water & Sewer; Gary Rudolph, Utilities Manager/Environmental Services Department; Dennis Westrick, PEI Manager, Environmental Services Department; and Joseph Pew, Meter Services Supervisor, Environmental Services Department/Water & Sewer (replacing David Gregory, who no longer works for the County), evaluated the submittals. Seven (7) firms were shortlisted by the Evaluation Committee and RFP-600223-07/GMG was issued to the qualified applicants for the second phase of the project, listed in alphabetical order:

- Amco Water Metering Systems, Ocala, Florida
- Badger Meter, Inc., Milwaukee, Wisconsin
- Datamatic, Ltd, Plano, Texas
- HD Supply Waterworks, Orlando, Florida
- Municipal Water Works, Inc., Orlando, Florida
- Sunstate Meter & Supply, Inc., Newberry, Florida
- Triton Water Technologies, Tampa, Florida

The Evaluation Committee interviewed these firms giving consideration to each firm's delineated qualifications and experience, technical plan, approach to the project and price proposal. The estimated cost of this project is \$500,000.00. The contract will take effect on

the date of its execution and will run for a five (5) year base period. At the sole option of the County, the agreement may be renewed for five (5) renewal periods not to exceed one (1) year each. Authorization for provision of services by the Contractor under this agreement shall be in the form of written Release Orders issued by the County based on annual amount budgeted by the County for this project.

**STAFF RECOMMENDATION:**

Staff recommends that the Board award RFP-600223-07/GMG- Radio-Based Automatic Meter Reading System for Seminole County Environmental Services Department to Badger Meter, Inc., Milwaukee, Wisconsin.

**ATTACHMENTS:**

1. Evaluation Score for RFI-600153-07/GMG
2. RFP-600223 Presentations Score
3. RFP-600223 Evaluation & Ranking
4. Tabulation Sheet/Status
5. Agreement

**Additionally Reviewed By:**

County Attorney Review ( Ann Colby )

RFI Evaluation Score for Automated Meter Reading Systems  
**RFI-600153-07/GMG**

	Amco Water	Badger Meter, Inc	Datamatic, Ltd.	HD Supply Waterworks	Hersey Meters	Municipal Water Works	SunState Meter	Tech To Be	Triton Water
Highly Acceptable (3)	1	4	0	1	0	1	2	1	0
Acceptable (2)	4	3	4	3	2	4	5	1	0
Marginal (1)	2	0	3	2	4	1	0	2	0
Unsatisfactory (0)	0	0	0	1	1	1	0	3	7
<b>Total Score</b>	<b>13</b>	<b>18</b>	<b>11</b>	<b>11</b>	<b>8</b>	<b>12</b>	<b>16</b>	<b>7</b>	<b>0</b>

**Evaluators:**

Bob Briggs, Environmental Services Department  
 Robert Dehler, Environmental Services Department  
 David Gregory, Environmental Services Department  
 Tom Owens, Environmental Services Department  
 Gary Rudolph, Environmental Services Department  
 Dennis Westrick, Environmental Services Department  
 Alauddin, Ali, BITS Department

## RFP Presentations Score for Automated Meter Reading Systems

### RFP-600223-07/GMG

	Amco Water	Badger Meter, Inc	Datamatic, Ltd.	HD Supply Waterworks	Municipal Water Works	SunState Meter	Triton Water
Shorlisted (Yes/No)	Yes	Yes	No	Yes	No	Yes	No

#### **Evaluators:**

Bob Briggs, Environmental Services Department

Robert Dehler, Environmental Services Department

David Gregory, Environmental Services Department

Tom Owens, Environmental Services Department

Gary Rudolph, Environmental Services Department

Dennis Westrick, Environmental Services Department

Alauddin, Ali, BITS Department

#### **Considerations:**

Current system drive-by, fixed, hybrid?

Fixed based system - can be hybrid?

Need to run different AMR system or database for fixed network collectors?

Type of AMR database

How many utility users can be in the system simultaneously?

Can the meters readings from handhelds, mobile data collectors, fixed network collectors merge dynamically into the same database?

Can the AMR system work with generic Windows based hardened laptops or need vendor specific laptops? Cost and weigh?

Data transferred from handhelds, drive-by, fixed collectors to be billing/ AMR database? USB drive drive, flash cards, network

Is AMR system independent of the billing system or integrated?

Presentations and RFP submittals : August 30 and 31, 2007

Evaluation Committee Meeting: September 6, 2007 at 11:00 AM - Environmental Services Conference Room

# RFP-600223-07/GMG

## EVALUATION RESPONSES AND RANKING

Responder =>	Dehler, Robert		Owens, Tom		Ali, Alauddin		Briggs, Bob		Pew, Joseph		Average Ranking
	Rank	Comment	Rank	Comment	Rank	Comment	Rank	Comment	Rank	Comment	
<b>Amco Water Meter Systems</b>	3	Local support and meter factory in Ocala Florida. Can transfer over from drive by system to fixed. 10 to 80 mlwatts, FCC License 1400 mgz system. ISO 9000 and 2000 compliance. Some questions still standing on software system.	5	Supplied radios and kent meters, not encoders for other brands. Local supply, could not explain software.	4	AMR front end interface is acceptable. Their Positive Displacement Meters meet RFP. However, AMR solution, their data warehousing, and networking are not acceptable. They are still working with Windows NT 4.0. Future fixed network migration requires changing out the MIUs.	4	Factory located in Ocala, and could expedite ordering, delivery and service concerns. Any transition to a fixed system at a later date requires unit change-out based on physical units. Future generation units may not have this limitation.	4	Metering system can be modified from drive by to fixed for an additional cost. FCC license required. Meters met all specs.	4
<b>Badger Meter Inc.</b>	2	Open architecture, non-licensed 900mgz radio system(Good). Drive by to fixed system with no charges! Panasonic Tough Book computer, no software up-grades/changes needed transferring over. Good meters with true encoders.	1	System appears to very stable, will work on 95% of meters in our system. Have encoders for multiple brands, appears to easily convert over.	1	AMR backend is HTE 6.1 compatibale. System is adaptable to meters from other vendors. Future migration to fixed network is possible with any given infrastructure. MIUs do not require battery replacement during warrenty period.Weekness: Handheld DCUs require readers to be within 1000 feet proximity	1	High direct compitabilty with majority of existling system meters. Retro-fit would be extremely easy with minimal transition issues. Firm has an excellent service history with the County.	1	No need for dual software when changing from a drive by to fixed system.No FCC license required and true encoder meters.	1.2
<b>Datamatic, LTD.</b>	6	Not in the meter supply business. Their system in nice, but not what we are looking for.	6	Sell no meters, would have to convert every meter, no absolute encoder.	3	AMR interface is acceptable. Data warehousing is OK. MIUs capable of reaching up to 2000 feet. Future integration has not been addressed. Not a lot of clarification on the handheld data collection units.	5	Vendor does not supply meters. Retro-fit requires a hand-sweep in the meter for reading, not an encoder.	6	AMR company only. Does not supply meters.	5.2
<b>HD Supply Waterworks</b>	4	Fixed to drive-by conversion requires hardware and software changes. Licensed FCC required. Sensus meters only. Meters do have true encoders.	3	Was selling their fixed system and not drive by. Seemed to expensive to start with	5	RFP has not been addressed. Only addressed fixed network system; no drive-by; no hybrid. System doesn't meet the RFP criteria	2	Presented a fixed-base system only. Not any drive-by capabilities.	2	Sensus meters. FCC license required.Concerned about cost. True encoder meters.	3.2
<b>Municipal Waterworks</b>	5	Meters and radio system all one unit. Drive-by to Fixed system requires software and hardware changes. <u>Not true encoders.</u> (Master Meters)	4	Not absolute encoders, will only work with their meters. Master Meters is a multijet meter.	6	Not enough info on the actual AMR system. Specific RFP has not been addressed. No absolute encoders; only work with their own meters.	6	Meter proposed is a multi-jet instead of positive displacement. the AMR is not a true encoder. Local (Orlando) address.	5	PD(Positive Displacement) meters. Change out required when transferring from drive by to fixed.	5.2
<b>Sunstate Meter &amp; Supply, Inc.</b>	1	Neptune Meters, Absolute encoder technology. 900 mgz un-licensed, with 100 mlmatt power.	2	Met specifications with meters and radio, data collection system seemed to be large and out dated. System appears hard to upgrade in future	2	Very customizable AMR software - Equinox. Backwards compatible, and client-server architecture. Their replacement meters are industry standard. However, MRX920 (45 lbs) is too bulky; not open to other laptops or vendors. Their migration to fixed network is still premitive.	3	Offers meters (Neptune) and an AMR system with true encoder technology	3	Neptune meter with absolute encoders. Good meter and no FCC license required.	2.2
<b>Triton Water</b>	7	Didn't meet specs in anyway. Engineering servcies.....	7	Did not meet specifications at all. More of an Engineering firm	7	RFP has not been addressed. No information submitted on their product.	7	Offers consulting services related to meters and reading technologies best suited to uniqueness of a given system. Does not not meet the intent of the RFP.	7	Consultanting firm. Did not meet needs.	7

<b>B.C.C. - SEMINOLE COUNTY, FL</b>		<p>ALL BIDS ACCEPTED BY SEMINOLE COUNTY ARE SUBJECT TO THE COUNTY'S TERMS AND CONDITIONS AND ANY AND ALL ADDITIONAL TERMS AND CONDITIONS SUBMITTED BY THE BIDDERS ARE REJECTED AND SHALL HAVE NO FORCE AND EFFECT. BID DOCUMENTS FROM THE VENDORS LISTED HEREIN ARE THE ONLY BIDS RECEIVED TIMELY AS OF THE ABOVE OPENING DATE AND TIME.</p> <p>ALL OTHER BID DOCUMENTS SUBMITTED IN RESPONSE TO THIS SOLICITATION, IF ANY, ARE HEREBY REJECTED AS LATE.</p> <p>PAGE: 1 of 1</p>
BID NUMBER:	RFP-600223-07/GMG	
BID TITLE:	<b>Radio Based Automatic Meter Reading System for Seminole County</b>	
DUE DATES:	August 30-31, 2007	

Response 1	Response 2	Response 3	Response 4	Response 5
<p>Amco Water Metering Systems 1100 SW 38<sup>th</sup> Avenue Ocala FL 34474</p> <p>(800) 874-0890 – Phone Ann Shannon Jamie Allen</p>	<p>Badger Meter, Inc. 4545 W. Brown Deer Rd. Milwaukee, WI 53223</p> <p>(800) 876-3837 x15895 Phone (414) 371-5981 – Fax Pamela G. Stokke-Ceci</p>	<p>Datamatic, Ltd. 3600 K. Ave. Plano, TX 75074</p> <p>800-880-2878 – Phone 972-234-1134 – Fax Danny Padrón</p>	<p>HD Supply Waterworks 590 Ferguson Dr. Orlando, FL 32805</p> <p>(407) 291-1545 – Phone (407) 291-2006 – Fax David L. Bryant</p>	<p>Municipal Water Works, Inc. 3028 Mercy Drive Orlando, FL 32808-3139</p> <p>(407) 295-2400 – Phone (407) 295-2455 - Fax James Mathis</p>

Response 6	Response 7
<p>Triton Water Technologies 9506 Lake Chase Island Way Tampa, FL 33626</p> <p>(407) 312-1073 – Phone (407) 977-6751 – Fax Jeff Marshall</p>	<p>Sunstate Meter &amp; Supply, Inc. 14001 W. Newberry Rd Newberry, FL 32669</p> <p>(352) 332-7106 – Phone (352) 332-5604– Fax Jeff Kimbrough</p>

Presentations and RFP submittals: August 30 and 31, 2007  
Evaluation Committee Meeting: **September 6, 2007 at 11:00 AM** – Environmental Services Conference Room  
2<sup>nd</sup> Evaluation Committee Meeting: March 6, 2008 at 2:00 PM – Purchasing & Contracts Conference Room  
Site Visit: April 14, 2008 – Sarasota County Utilities Division (Badger Meter 's Orion Migrateable System)  
Recommendation of Award: Badger Meter, Inc. Posted 4/22/08 – BCC Award Date: June 10, 2008

**TERM CONTRACT FOR PURCHASE OF RADIO-BASED AUTOMATIC  
METER READING SYSTEM FOR SEMINOLE COUNTY  
(RFP-600223-07/GMG)**

**THIS AGREEMENT** is made and entered into this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between **BADGER METER, INC.**, duly authorized to conduct business in the State of Florida, whose mailing address is P. O. Box 245036, Milwaukee, Wisconsin 53224-9536, hereinafter called "CONTRACTOR", and **SEMINOLE COUNTY**, a political subdivision of the State of Florida, whose address is Seminole County Services Building, 1101 East First Street, Sanford, Florida 32771, hereinafter called "COUNTY".

**W I T N E S S E T H:**

**WHEREAS**, COUNTY desires to retain the services of a competent and qualified contractor to provide a radio-based automatic meter reading system for Seminole County; and

**WHEREAS**, COUNTY has requested and received expressions of interest for the retention of services of contractors; and

**WHEREAS**, CONTRACTOR is competent and qualified to provide a radio-based automatic meter reading system to COUNTY and desires to provide services according to the terms and conditions stated herein,

**NOW, THEREFORE**, in consideration of the mutual understandings and covenants set forth herein, COUNTY and CONTRACTOR agree as follows:

**SECTION 1. SERVICES.** COUNTY does hereby retain CONTRACTOR to furnish equipment as further described in the Scope of Services attached hereto as Exhibit A and made a part hereof. CONTRACTOR shall also be bound by all requirements as contained in the solicitation package and all addenda thereto. Required equipment shall be specifically enumerated, described and depicted in the Purchase Orders authorizing purchase of specific equipment. This Agreement standing alone does not authorize the purchase of equipment or require COUNTY to place any

orders for work.

**SECTION 2. TERM.** This Agreement shall take effect on the date of its execution by COUNTY and shall run for a period of five (5) years. At the sole option of COUNTY, this Agreement may be renewed for five (5) successive periods not to exceed one (1) year each. Expiration of the term of this Agreement shall have no effect upon Purchase Orders issued pursuant to this Agreement and prior to the expiration date. Obligations entered therein by both parties shall remain in effect until delivery and acceptance of the equipment authorized by the Purchase Order. The first three (3) months of the initial term shall be considered probationary. During the probationary period, COUNTY may immediately terminate this Agreement at any time, with or without cause, upon written notice to CONTRACTOR.

**SECTION 3. AUTHORIZATION FOR SERVICES.** Authorization for provision of equipment by CONTRACTOR under this Agreement shall be in the form of written Purchase Orders issued and executed by COUNTY and signed by CONTRACTOR. A sample Purchase Order is attached hereto as Exhibit B. Each Purchase Order shall describe the equipment required and shall state the dates for delivery of equipment and establish the amount and method of payment. The Purchase Orders will be issued under and shall incorporate the terms of this Agreement. COUNTY makes no covenant or promise as to the number of available Purchase Orders or that CONTRACTOR will perform any Purchase Order for COUNTY during the life of this Agreement. COUNTY reserves the right to contract with other parties for the services contemplated by this Agreement when it is determined by COUNTY to be in the best interest of COUNTY to do so.

**SECTION 4. TIME FOR COMPLETION.** The equipment to be provided by CONTRACTOR shall be delivered, as specified in such Purchase Orders as may be issued hereunder, within the time specified therein.

**SECTION 5. COMPENSATION.** COUNTY agrees to compensate CONTRACTOR for the equipment called for under this Agreement on a Fixed Fee basis. When a Purchase Order is issued for a Fixed Fee basis, then the applicable Purchase Order Fixed Fee amount shall include any and all reimbursable expenses. The total annual compensation paid to CONTRACTOR pursuant to this Agreement, including reimbursable expenses, shall not exceed the amount budgeted annually by the County for purchase of radio-based automatic meter reading equipment.

**SECTION 6. PAYMENT AND BILLING.**

(a) CONTRACTOR shall supply all equipment required by the Purchase Order; but in no event shall CONTRACTOR be paid more than the negotiated Fixed Fee amount stated within each Purchase Order.

(b) For Purchase Orders issued on a Fixed Fee basis, CONTRACTOR may invoice the amount due based on the percentage of total Purchase Order equipment actually provided, but in no event shall the invoice amount exceed a percentage of the Fixed Fee amount equal to a percentage of the total services actually completed.

(c) Payments shall be made by COUNTY to CONTRACTOR when requested as equipment is furnished but not more than once monthly. Each Purchase Order shall be invoiced separately. At the close of each calendar month, CONTRACTOR shall render to COUNTY an itemized invoice, properly dated, describing any equipment provided, the cost of the equipment therein, the name and address of CONTRACTOR, Purchase Order Number, Contract Number and any other information required by this Agreement.

The original invoice and one (1) copy shall be sent to:

Director of County Finance  
Seminole County Board of County Commissioners  
Post Office Box 8080  
Sanford, Florida 32772

Two (2) copies of the invoice shall be sent to:

Seminole County Environmental Services Department  
500 W. Lake Mary Blvd.  
Sanford, FL 32773

(d) Payment shall be made after review and approval by COUNTY within thirty (30) days of receipt of a proper invoice from CONTRACTOR.

**SECTION 7. GENERAL TERMS OF PAYMENT AND BILLING.**

(a) Upon satisfactory delivery of equipment required hereunder and upon acceptance of the equipment by COUNTY, CONTRACTOR may invoice COUNTY for the full amount of compensation provided for under the terms of this Agreement less any amount already paid by COUNTY. COUNTY shall pay CONTRACTOR within thirty (30) days of receipt of proper invoice.

(b) COUNTY may perform or have performed an audit of the records of CONTRACTOR after final payment to support final payment hereunder. This audit would be performed at a time mutually agreeable to CONTRACTOR and COUNTY subsequent to the close of the final fiscal period in which the last equipment is provided. Total compensation to CONTRACTOR may be determined subsequent to an audit  as provided for herein and the total compensation so determined shall be used to calculate final payment to CONTRACTOR. Conduct of this audit shall not delay final payment as provided by subsection (a) of this Section.

(c) CONTRACTOR agrees to maintain all books, documents, papers, accounting records and other evidence pertaining to equipment provided under this Agreement in such a manner as will readily conform to the terms of this Agreement and to make such equipment available at CONTRACTOR's office at all reasonable times during the Agreement period and for five (5) years from the date of final payment under the contract for audit or inspection as provided for in subsection (b) of this Section.

(d) In the event any audit or inspection conducted after final payment but within the period provided in paragraph (c) of this Section

reveals any overpayment by COUNTY under the terms of the Agreement, CONTRACTOR shall refund such overpayment to COUNTY within thirty (30) days of notice by COUNTY.

**SECTION 8. RESPONSIBILITIES OF CONTRACTOR.** Neither COUNTY's review, approval or acceptance of, nor payment for any of the equipment required shall be construed to operate as a waiver of any rights under this Agreement or of any cause of action arising out of the performance of this Agreement. CONTRACTOR shall be and always remain liable to COUNTY in accordance with applicable law for any and all damages to COUNTY caused by CONTRACTOR's negligent or wrongful provision of any of the equipment furnished under this Agreement.

**SECTION 9. TERMINATION.**

(a) COUNTY may, by written notice to CONTRACTOR terminate this Agreement or any Purchase Order issued hereunder, in whole or in part, at any time, either for COUNTY's convenience or because of the failure of CONTRACTOR to fulfill its Agreement obligations. Upon receipt of such notice, CONTRACTOR shall immediately discontinue all services affected, unless the notice directs otherwise, and deliver to COUNTY all data, drawings, specifications, reports, estimates, summaries and any and all such other information and equipment of whatever type or nature as may have been accumulated by CONTRACTOR in performing this Agreement, whether completed or in process.

(b) If the termination is for the convenience of COUNTY, CONTRACTOR shall be paid compensation for services performed to the date of termination.

(c) If the termination is due to the failure of CONTRACTOR to fulfill its Agreement obligations, COUNTY may take over the work and prosecute the same to completion by other agreements or otherwise. In such case, CONTRACTOR shall be liable to COUNTY for all reasonable

additional costs occasioned to COUNTY thereby. CONTRACTOR shall not be liable for such additional costs if the failure to perform the Agreement arises without any fault or negligence of CONTRACTOR; provided, however, that CONTRACTOR shall be responsible and liable for the actions of its subcontractors, agents, employees and persons and entities of a similar type or nature. Such causes may include acts of God or of the public enemy, acts of COUNTY in its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather; but in every case the failure to perform must be beyond the control and without any fault or negligence of CONTRACTOR.

(d) If after notice of termination for failure to fulfill its Agreement obligations it is determined that CONTRACTOR had not so failed, the termination shall be conclusively deemed to have been effected for the convenience of COUNTY. In such event, adjustment in the Agreement price shall be made ~~as~~ provided in subsection (b) of this Section.

(e) The rights and remedies of COUNTY provided for in this Section are in addition and supplemental to any and all other rights and remedies provided by law or under this Agreement.

**SECTION 10. AGREEMENT AND PURCHASE ORDER IN CONFLICT.** Whenever the terms of this Agreement conflict with any Purchase Order issued pursuant to it, this Agreement shall prevail.

**SECTION 11. EQUAL OPPORTUNITY EMPLOYMENT.** CONTRACTOR agrees that it will not discriminate against any employee or applicant for employment for work under this Agreement because of race, color, religion, sex, age, disability or national origin and will take steps to ensure that applicants are employed and employees are treated during employment without regard to race, color, religion, sex, age,

disability, or national origin. This provision shall include, but not be limited to the following: employment, upgrading, demotion or transfer, recruitment advertising, layoff or termination, rates of pay or other forms of compensation and selection for training including apprenticeship.

**SECTION 12. NO CONTINGENT FEES.** CONTRACTOR warrants that it has not employed or retained any company or person other than a bona fide employee working solely for CONTRACTOR to solicit or secure this Agreement and that it has not paid or agreed to pay any person, company, corporation, individual or firm other than a bona fide employee working solely for CONTRACTOR, any fee, commission, percentage, gift or other consideration contingent upon or resulting from award or making of this Agreement. For the breach or violation of this provision, COUNTY shall have the right to terminate the Agreement at its sole discretion, without liability and to deduct from the Agreement price or otherwise recover the full amount of such  fee, commission, percentage, gift or consideration.

**SECTION 13. CONFLICT OF INTEREST.**

(a) CONTRACTOR agrees that it will not contract for or accept employment for the performance of any work or service with any individual, business, corporation or government unit that would create a conflict of interest in the performance of its obligations pursuant to this Agreement with COUNTY.

(b) CONTRACTOR agrees that it will neither take any action nor engage in any conduct that would cause any COUNTY employee to violate the provisions of Chapter 112, Florida Statutes, relating to ethics in government.

(c) In the event that CONTRACTOR causes or in any way promotes or encourages a COUNTY officer, employee or agent to violate Chapter 112,

Florida Statutes, COUNTY shall have the right to terminate this Agreement.

**SECTION 14. ASSIGNMENT.** This Agreement, or any interest herein, shall not be assigned, transferred, or otherwise encumbered under any circumstances by the parties hereto without prior written consent of the other party and in such cases only by a document of equal dignity herewith.

**SECTION 15. SUBCONTRACTORS.** In the event that CONTRACTOR, during the course of the work under this Agreement, requires the services of subcontractors or other professional associates in connection with services covered by this Agreement, CONTRACTOR must first secure the prior express written approval of COUNTY. If subcontractors or other professional associates are required in connection with the services covered by this Agreement, CONTRACTOR shall remain fully responsible for the services of subcontractors or other professional associates.

**SECTION 16. INDEMNIFICATION OF COUNTY.** CONTRACTOR agrees to hold harmless and indemnify COUNTY and its commissioners, officers, employees and agents against any and all claims, losses, damages or lawsuits for damages arising from, allegedly arising from or related to the provision of services hereunder by CONTRACTOR.

**SECTION 17. INSURANCE.**

(a) GENERAL. CONTRACTOR shall, at its own cost, procure the insurance required under this Section.

(1) Prior to commencement of work pursuant to this Agreement, CONTRACTOR shall furnish COUNTY with a Certificate of Insurance signed by an authorized representative of the insurer evidencing the insurance required by this Section (Workers' Compensation/Employer's Liability, Commercial General Liability, and Business Auto). COUNTY and its officials, officers, and employees shall

be named additional insured under the Commercial General Liability Policy. The Certificate of Insurance shall provide that COUNTY shall be given not less than thirty (30) days written notice prior to the cancellation or restriction of coverage. Until such time as the insurance is no longer required to be maintained by CONTRACTOR, CONTRACTOR shall provide COUNTY with a renewal or replacement Certificate of Insurance not less than thirty (30) days before expiration or replacement of the insurance for which a previous certificate has been provided.

(2) The Certificate shall contain a statement that it is being provided in accordance with the Agreement and that the insurance is in full compliance with the requirements of the Agreement. In lieu of the statement on the Certificate, CONTRACTOR will at the option of COUNTY submit a sworn, notarized statement from an authorized representative of the insurer that the Certificate is being provided in accordance with the Agreement  and that the insurance is in full compliance with the requirements of the Agreement.

(3) In addition to providing the Certificate of Insurance, if required by COUNTY, CONTRACTOR shall within thirty (30) days after receipt of the request provide COUNTY with a certified copy of each of the policies of insurance providing the coverage required by this Section.

(4) Neither approval by COUNTY nor failure to disapprove the insurance furnished by CONTRACTOR shall relieve CONTRACTOR of its full responsibility for performance of any obligation including CONTRACTOR indemnification of COUNTY under this Agreement.

(b) INSURANCE COMPANY REQUIREMENTS. Insurance companies providing the insurance under this Agreement must meet the following requirements:

(1) Companies issuing policies other than Workers' Compensation must be authorized to conduct business in the State of Florida and prove same by maintaining Certificates of Authority issued to the companies by the Department of Insurance of the State of Florida.

Policies for Workers' Compensation may be issued by companies authorized as a group self-insurer by Section 440.57, Florida Statutes.

(2) In addition, such companies other than those authorized by Section 440.57, Florida Statutes, shall have and maintain a Best's Rating of "A" or better and a Financial Size Category of "VII" or better according to A.M. Best Company.

(3) If during the period which an insurance company is providing the insurance coverage required by this Agreement, an insurance company shall: (i) lose its Certificate of Authority, (ii) no longer comply with Section 440.57, Florida Statutes, or (iii) fail to maintain the requisite Best's Rating and Financial Size Category, CONTRACTOR shall, as soon as CONTRACTOR has knowledge of any such circumstance, immediately notify COUNTY and immediately replace the insurance coverage provided by the insurance company with a different insurance company meeting the requirements of this Agreement. Until such time as CONTRACTOR has replaced the unacceptable insurer with an insurer acceptable to COUNTY CONTRACTOR shall be deemed to be in default of this Agreement.

(c) SPECIFICATIONS. Without limiting any of the other obligations or liability of CONTRACTOR, CONTRACTOR shall, at its sole expense, procure, maintain, and keep in force amounts and types of insurance conforming to the minimum requirements set forth in this subsection. Except as otherwise specified in the Agreement, the insurance shall become effective prior to the commencement of work by CONTRACTOR and shall be maintained in force until the Agreement

completion date. The amounts and types of insurance shall conform to the following minimum requirements.

(1) Workers' Compensation/Employer's Liability.

(A) CONTRACTOR's insurance shall cover CONTRACTOR for liability which would be covered by the latest edition of the standard Workers' Compensation Policy as filed for use in Florida by the National Council on Compensation Insurance, without restrictive endorsements. CONTRACTOR will also be responsible for procuring proper proof of coverage from its subcontractors of every tier for liability which is a result of a Workers' Compensation injury to the subcontractor's employees. The minimum required limits to be provided by both CONTRACTOR and its subcontractors are outlined in subsection (c) below.

In addition to coverage for the Florida Workers' Compensation Act, where appropriate, coverage is to be included for the United States Longshoremen and Harbor Workers' Compensation Act, Federal Employers' Liability Act, and any other applicable Federal or State law.

(B) Subject to the restrictions of coverage found in the standard Workers' Compensation Policy, there shall be no maximum limit on the amount of coverage for liability imposed by the Florida Workers' Compensation Act, the United States Longshoremen's and Harbor Workers' Compensation Act or any other coverage customarily insured under Part One of the standard Workers' Compensation Policy.

(C) The minimum amount of coverage under Part Two of the standard Workers' Compensation Policy shall be:

\$100,000.00	(Each Accident)
\$100,000.00	(Disease-Policy Limit)
\$100,000.00	(Disease-Each Employee)

(2) Commercial General Liability.

(A) CONTRACTOR's insurance shall cover CONTRACTOR for those sources of liability which would be covered by the latest edition

of the standard Commercial General Liability Coverage Form (ISO Form CG 00 01), as filed for use in the State of Florida by the Insurance Services Office, without the attachment of restrictive endorsements other than the elimination of Coverage C, Medical Payment and the elimination of coverage for Fire Damage Legal Liability.

(B) The minimum limits to be maintained by CONTRACTOR (inclusive of any amounts provided by an Umbrella or Excess policy) shall be as follows:

	<u>LIMITS</u>
General Aggregate	Three (3) Times the Each Occurrence Limit
Personal & Advertising Injury Limit Each Occurrence Limit	\$300,000.00 \$300,000.00

(3) Business Auto Policy.

(A) CONTRACTOR'S insurance shall cover CONTRACTOR for those sources of liability which ~~would~~ be covered by Part IV of the latest edition of the standard Business Auto Policy (ISO Form CA 00 01), as filed for use in the State of Florida by the Insurance Services Office, without the attachment of restrictive endorsements. Coverage shall include owned, non-owned, and hired autos.

(B) The minimum limits to be maintained by CONTRACTOR (inclusive of any amounts provided by an Umbrella or Excess policy) shall be per-accident, combined single limit for bodily injury liability and property damage liability. If the coverage is subject to an aggregate, CONTRACTOR shall maintain separate aggregate limits of coverage applicable to claims arising out of or in connection with the work under this Agreement. The separate aggregate limits to be maintained by CONTRACTOR shall be a minimum of three (3) times the per-accident limit required and shall apply separately to each policy year or part thereof.

(C) The minimum amount of coverage under the Business Auto Policy shall be:

	<u>LIMITS</u>
Each Occurrence Bodily Injury and Property Damage Liability Combined	\$300,000.00

(d) COVERAGE. The insurance provided by CONTRACTOR pursuant to this Agreement shall apply on a primary basis and any other insurance or self-insurance maintained by COUNTY or COUNTY's officials, officers, or employees shall be excess of and not contributing with the insurance provided by or on behalf of CONTRACTOR.

(e) OCCURRENCE BASIS. The Workers' Compensation Policy and the Commercial General Liability required by this Agreement shall be provided on an occurrence rather than a claims-made basis.

(f) OBLIGATIONS. Compliance with the foregoing insurance requirements shall not relieve CONTRACTOR, its employees, or its agents of liability from any obligation under a Section or any other portions of this Agreement. It shall also be the responsibility of CONTRACTOR to ensure that all of its subcontractors performing services under this Agreement are in compliance with the insurance requirements of this Agreement as defined above.

**SECTION 18. DISPUTE RESOLUTION.**

(a) In the event of a dispute related to any performance or payment obligation arising under this Agreement, the parties agree to exhaust COUNTY dispute resolution procedures prior to filing suit or otherwise pursuing legal remedies. COUNTY dispute resolution procedures for proper invoice and payment disputes are set forth in Section 22.15, "Prompt Payment Procedures," Seminole County Administrative Code. Contract claims include all controversies, except disputes addressed by the "Prompt Payment Procedures," arising under this Agreement within the

dispute resolution procedures set forth in Section 8.1539, "Contract Claims," Seminole County Administrative Code.

(b) CONTRACTOR agrees that it will file no suit or otherwise pursue legal remedies based on facts or evidentiary materials that were not presented for consideration in COUNTY dispute resolution procedures set forth in subsection (a) above of which CONTRACTOR had knowledge and failed to present during COUNTY dispute resolution procedures.

(c) In the event that COUNTY dispute resolution procedures are exhausted and a suit is filed or legal remedies are otherwise pursued, the parties shall exercise best efforts to resolve disputes through voluntary mediation. Mediator selection and the procedures to be employed in voluntary mediation shall be mutually acceptable to the parties. Costs of voluntary mediation shall be shared equally among the parties participating in the mediation

**SECTION 19. REPRESENTATIVES OF COUNTY AND CONTRACTOR.**

(a) It is recognized that questions in the day-to-day conduct of performance pursuant to this Agreement will arise. COUNTY, upon request by CONTRACTOR, will designate and advise CONTRACTOR in writing of one or more of its employees to whom all communications pertaining to the day-to-day conduct of this Agreement shall be addressed. The designated representative shall have the authority to transmit instructions, receive information and interpret and define COUNTY'S policy and decisions pertinent to the work covered by this Agreement.

(b) CONTRACTOR shall at all times during the normal work week designate or appoint one or more representatives who are authorized to act on behalf of and bind CONTRACTOR regarding all matters involving the conduct of the performance pursuant to this Agreement and shall keep COUNTY continually and effectively advised of such designation.

**SECTION 20. ALL PRIOR AGREEMENTS SUPERSEDED.** This document incorporates and includes all prior negotiations, correspondence, conversations, agreements or understandings applicable to the matters contained herein and the parties agree that there are no commitments, agreements, or understandings concerning the subject matter of this Agreement that are not contained or referred to in this document. Accordingly, it is agreed that no deviation from the terms hereof shall be predicated upon any prior representations or agreements, whether oral or written.

**SECTION 21. MODIFICATIONS, AMENDMENTS, OR ALTERATIONS.** No modification, amendment, or alteration in the terms or conditions contained herein shall be effective unless contained in a written document executed with the same formality and of equal dignity herewith.

**SECTION 22. INDEPENDENT CONTRACTOR.** It is agreed that nothing herein contained is intended or should be construed as in any manner creating or establishing a relationship of co-partners between the parties, or as constituting CONTRACTOR (including its officers, employees, and agents) as an agent, representative or employee of COUNTY for any purpose or in any manner whatsoever. CONTRACTOR is to be and shall remain forever an independent contractor with respect to all services performed under this Agreement.

**SECTION 23. EMPLOYEE STATUS.** Persons employed by CONTRACTOR in the performance of services and functions pursuant to this Agreement shall have no claim to pension, workers' compensation, unemployment compensation, civil service or other employee rights or privileges granted to COUNTY'S officers and employees either by operation of law or by COUNTY.

**SECTION 24. SERVICES NOT PROVIDED FOR.** No claim for services furnished by CONTRACTOR not specifically provided for herein shall be

honored by COUNTY.

**SECTION 25. PUBLIC RECORDS LAW.** CONTRACTOR acknowledges COUNTY'S obligations under Article I, Section 24, Florida Constitution, and Chapter 119, Florida Statutes, to release public records to members of the public upon request. CONTRACTOR acknowledges that COUNTY is required to comply with Article I, Section 24, Florida Constitution, and Chapter 119, Florida Statutes, in the handling of the materials created under this Agreement and that said statute controls over the terms of this Agreement.

**SECTION 26. COMPLIANCE WITH LAWS AND REGULATIONS.** In providing all services pursuant to this Agreement, CONTRACTOR shall abide by all statutes, ordinances, rules, and regulations pertaining to or regulating the provisions of such services including those now in effect and hereafter adopted. Any violation of said statutes, ordinances, rules or regulations shall constitute a material breach of this Agreement and shall entitle COUNTY to terminate this Agreement immediately upon delivery of written notice of termination to CONTRACTOR.

**SECTION 27. NOTICES.** Whenever either party desires to give notice unto the other, it must be given by written notice, sent by registered or certified United States mail, return receipt requested, addressed to the party for whom it is intended at the place last specified. The place for giving of notice shall remain such until it shall have been changed by written notice in compliance with the provisions of this Section. For the present, the parties designate the following as the respective places for giving of notice, to-wit:

**For COUNTY:**

Environmental Services Department  
500 W. Lake Mary Blvd.  
Sanford, FL 32773

**For CONTRACTOR:**

Badger Meter, Inc.  
P. O. Box 245036  
Milwaukee, WI 53224-9536

**SECTION 28. RIGHTS AT LAW RETAINED.** The rights and remedies of COUNTY provided for under this Agreement are in addition and supplemental to any other rights and remedies provided by law.

**IN WITNESS WHEREOF,** the parties hereto have made and executed this Agreement on the date below written for execution by COUNTY.

ATTEST:

BADGER METER, INC.

\_\_\_\_\_  
, Secretary

By: \_\_\_\_\_  
, President

(CORPORATE SEAL)

Date: \_\_\_\_\_

ATTEST:

BOARD OF COUNTY COMMISSIONERS  
SEMINOLE COUNTY, FLORIDA

\_\_\_\_\_  
MARYANNE MORSE  
Clerk to the Board of  
County Commissioners of  
Seminole County, Florida.



By: \_\_\_\_\_  
BRENDA CAREY, Chairman

Date: \_\_\_\_\_

For the use and reliance  
of Seminole County only.

As authorized for execution  
by the Board of County Commissioners  
at their \_\_\_\_\_, 20\_\_\_\_  
regular meeting.

Approved as to form and  
legal sufficiency.

\_\_\_\_\_  
County Attorney

AEC/sjs  
4/28/08

P:\Users\Legal Secretary CSB\Purchasing 2008\Agreements\RFP-600223-07.doc

Attachments:

- Exhibit A - Scope of Services
- Exhibit B - Sample Purchase Order

**Exhibit A**

**Price Proposal**

A. Proposer must submit the costs associated with the required services including all direct and indirect costs.

5/8x3/4 Badger MLP Bronze, ADE, ORION Data Profile Transmitter	\$124.95 ea.
1" Badger M55 Bronze, ADE, ORION Data Profile Transmitter	179.94 ea.
1-1/2" M120 Elliptical, ADE, ORION Data Profile Transmitter	298.84 ea.
2" M170 Elliptical, ADE, ORION Data Profile Transmitter	362.35 ea.
ADE, ORION Data Profile Transmitter for 5/8"-2" Badger Disc Meters Retrofit price for all existing Badger Meters - Includes encoder register and ORION Transmitter.	87.00 ea.
Orion Universal Data Profile Transmitter for ABB, Hersey, Neptune & Sensus meters Retrofit price for all Competitors water meters - Includes ORION "Universal" Transmitter, does not include encoder.	74.00 ea.

Included in above:

- (1) Premium Panasonic Laptop with GPS
- (2) Badger Handhelds,
- (1) Badger Main Line Loader/Charger w/PC Cable
- (1) Badger Secondary Loader/Charger
- (1) ORION Data Profile Viewer Software w/Download Cable
- (1) Badger CONNECT Meter Reading Software
- (3) Day ORION Training

Billing Interface - HTE (version 6.1) Annual Maintenance (Responsibility of Seminole County to pay directly to HTE)	\$1,010.00
--	------------

## 2. TECHNICAL INFORMATION / APPROACH / IMPLEMENTATION

A. How would your system be implemented with the County's current meter system (retro-fit)? The County is looking to have the AMR system support as many meters in our utility systems including water/reuse/wastewater, and pumping as follows:

- Residential Meters- 40,000 meters
- Compound Meters- 100 meters
- Facilities and Pumping- 260 meters

*With the County's current meter system, the standard registers will be removed and replaced with our integrated encoder/ORION Transmitter, No Programming Required. For meters other than Badger, the ORION Universal Module will be used by connecting three wires to that manufacturers supplied encoder register, again, No Programming Required.*

B. AMR system compatibility with other manufacturers is required. How would the County manage a change in meter suppliers in the future: What characteristics of your product would enhance or impede a potential change?

*For competitive meters that do not have to be replaced, the County is able to take advantage of the ORION Universal Module - ORION transmitters are factory pre-programmed to connect to Elster- AMCO Scancoder and Invision Register, Hersey Translator, Neptune ProRead/E-Coder and Sensus ECRII/ICE Encoder. The County would need to procure the competitive encoders for these meters as the County will receive more favorable pricing than Badger Meter, Inc.*

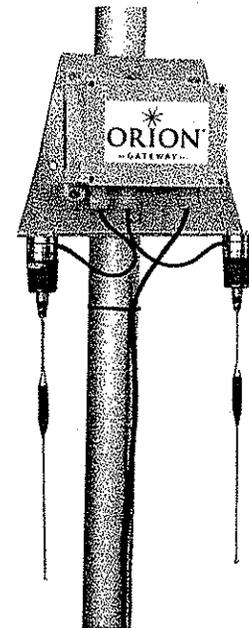
C. All AMR computer software and hardware shall interface and be compatible with SCES's current Customer Information System HTE Inc. 6.1 Version. Please verify that your company will be completely responsible for interfacing your AMR system with the County's current billing system. If there is any performance required from the County billing system vendor to ensure a seamless interface, please describe. SCES is considering a possible change in billing software in the future. What other billing system are you compatible with and how can you aid in a potential future change?

*Badger Meter's Meter Data Management software is designed with a flexible billing system software interface. We have successfully interfaced our software with over 350 different billing software systems and have specifically interfaced to HTE Inc. with 46 of our water utility customers. Our interface is comprised of a standard 256-character flat file format, which can be customized per the customer's needs. Badger will perform the interface to the current billing vendor software however, we must be in contact with the vendor in the process. If the County changes billing vendors after Badger Meter has completed the interface with the existing billing vendor, additional charges may apply if the selected vendor is not one that Badger has successfully interfaced with in the past. Our Technical Support staff can assist in making any necessary changes to your interface format to accommodate a new billing vendor.*

D. Communications - With meter interface and handheld data collection units, please state transmission ranges and transmitter frequencies. The County is also interested in unlicensed radio communications system. The County is interested in a Drive-By system converting to a Fixed-Network system eventually. Please provide a road map of the proposed system to be converted or upgraded to a fixed network real-time communications system. Describe any cost involved in the system conversion, including all system components in need of change-out and/or replacement.

**AMR INDUSTRY TRENDS** - Industry experts predict that the future trend of AMR is leaning more and more toward flexible hybrid solutions that can utilize the many wireless options available today as well as the many other options to come in the future. With this in mind, utilities do not want to make an AMR purchase today and find out that it is going to be out-of-date or obsolete in the near future. Our customers can rest assured that the AMR choice they make today with ORION is not only the best choice in mobile AMR technology, but is also the right choice for future migration into emerging networks. Badger Meter has developed close alliances with industry leaders in network technology including Cisco, Motorola, Sprint / Nextel, Tropos and SkyPilot. Our alliances with these network leaders allows ORION to easily migrate from a mobile AMR system into any of these network solutions, with no changes or reprogramming of the transmitters already installed in the field.

**HYBRID AMI SOLUTION** – Badger's ORION AMR system offers the utility the ability to migrate into a countywide Wi-Fi network, cellular network or a point-to-point network technology (please see diagrams below) by virtue of its built-in flexibility. Badger Meter has developed an innovative receiver product that allows a utility to move seamlessly from a walk-by or drive-by ORION solution into a network AMI (Advanced Metering Infrastructure) system when the county deploys a countywide network. Badger's ORION Gateway receiver provides connectivity to numerous network hardware manufacture's equipment due to its simplicity and flexibility.

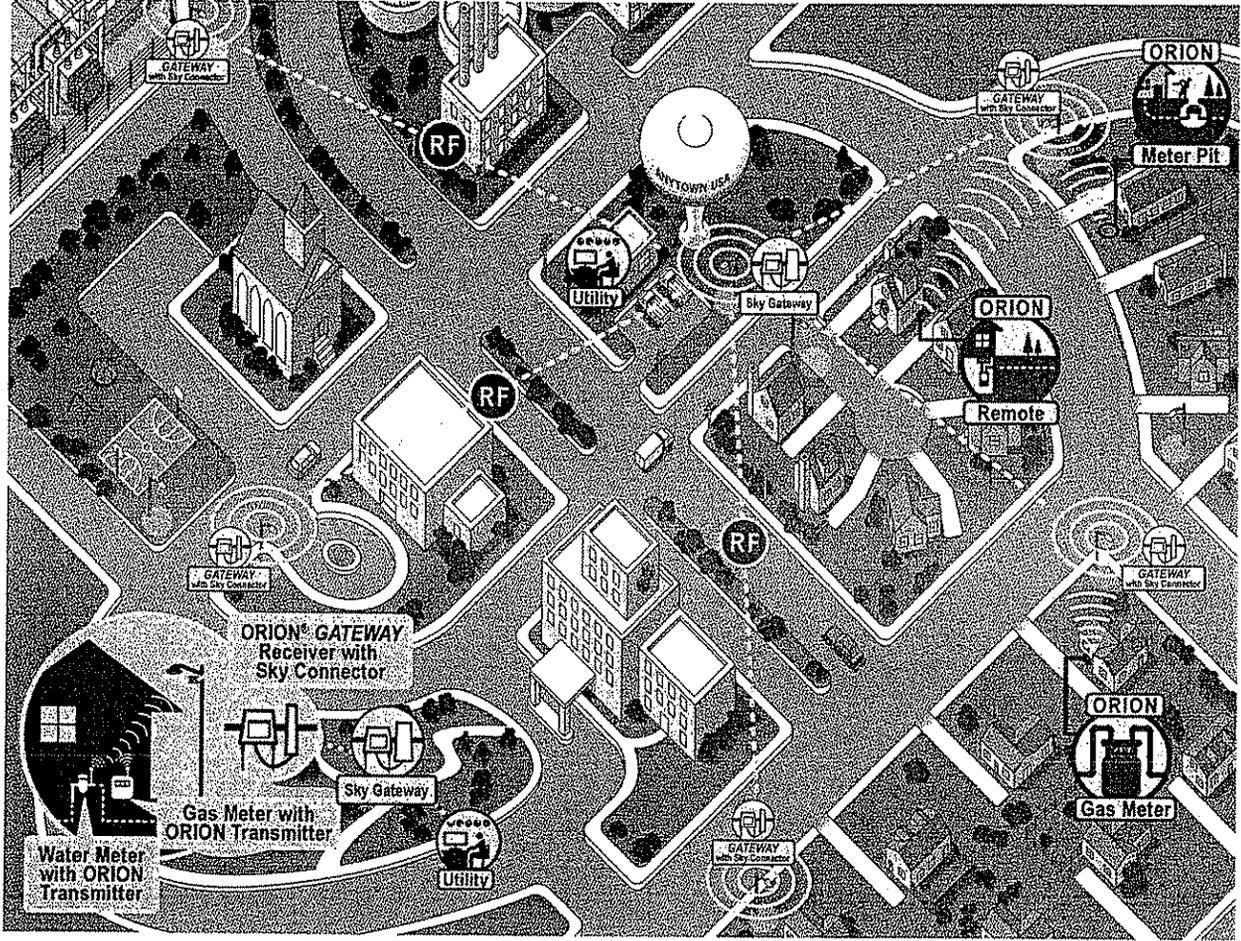


The ORION Gateway is assigned a unique network IP Address and simply listens and records the latest readings from all the ORION transmitters in the area. The ORION AMR modules send out their signal every four to five seconds. So the latest metering data is constantly available for the analysis of your metering system. Utilizing Badger's Network Reader software, the utility can poll the IP Address of the ORION Gateway receiver at any time and receive the latest transmitter readings. The ORION Gateway data transfer has extremely low-bandwidth requirements, so readings can be taken at anytime without slowing down the utility's network.

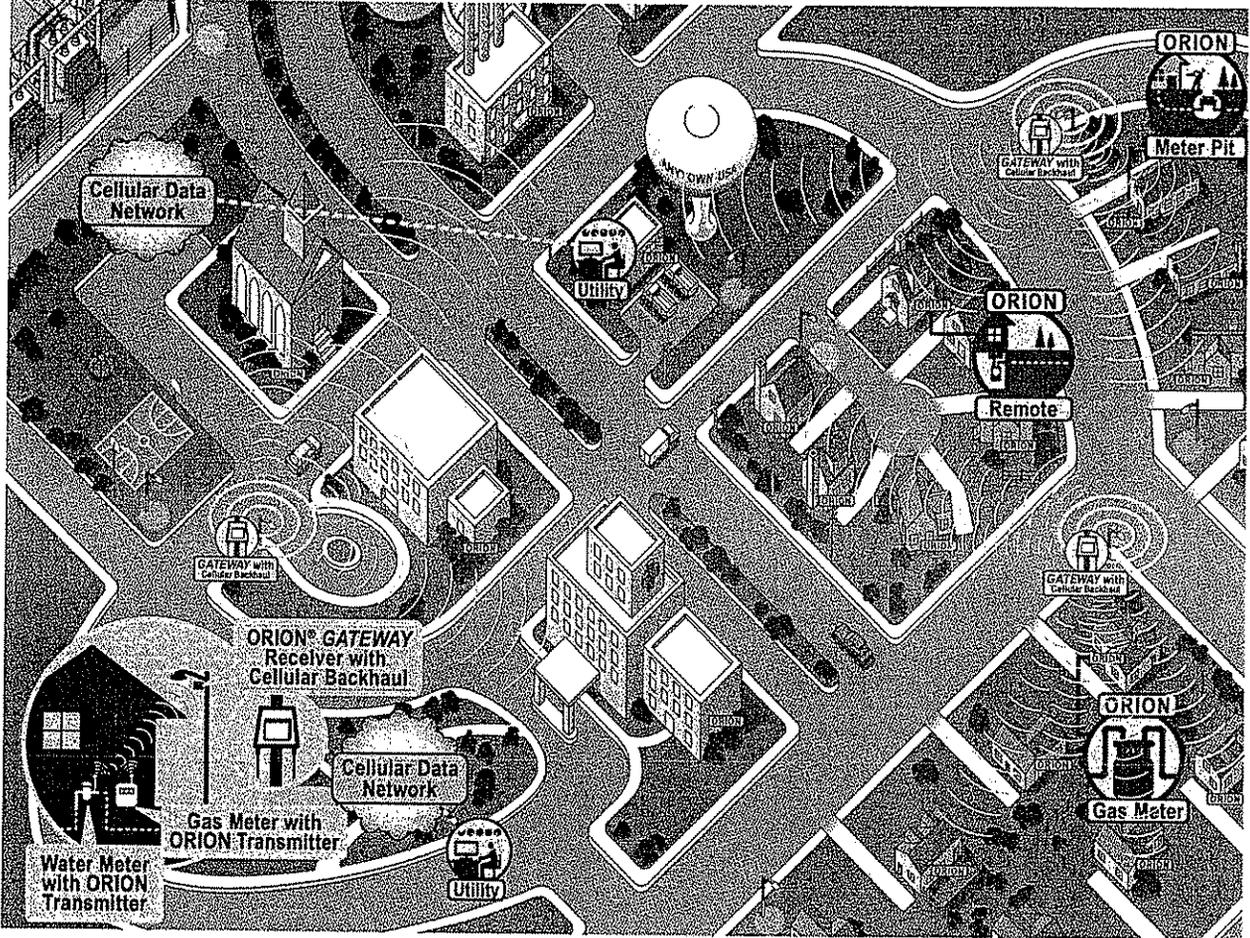
The ORION transmitter data is sent over the network in a secure fashion utilizing Badger's proprietary encoding scheme. With security in mind, the network data transmission does not contain any customer information in its message, only an encoded version of the transmitter serial number. Therefore, the data is secure until Badger's metering software decodes it and delivers it to utility's billing system software.



# ROAD MAP DIAGRAM – DRIVE-BY TO POINT-TO-POINT NETWORK



# ROAD MAP DIAGRAM – DRIVE-BY TO CELLULAR NETWORK



**DATA POWER** – As you are well aware, the power of any AMI system is in the software and its ability to help you use your data. You can't manage what you can't measure. Utility efficiencies can be gained by better understanding what is really going on in your system. Below is a list of some of the features and reports of the ORION Network Reader software.

#### **BADGER NETWORK METER READING SOFTWARE FEATURES**

- Badger's Network Meter Reader software gives the Utility the ability to schedule data downloads from the Gateway receivers at any user-defined interval by number of hours, days, weeks or months.
- Directly interfaces with the utility's billing software platform.
- Provides an easy to use interface which gives the ability to get a "now" read from any ORION transmitter in the system; thus eliminating the unnecessary need for truck rolls to obtain final reads.
- Self-expanding historical database assists in customer service effectiveness.

#### **SOFTWARE REPORTING CAPABILITIES**

- Meter Reading History
- Daily Leak Detection Report
- Daily Stop Meter Report
- Daily Tamper Detection Report
- Backflow Report
- High Consumption Report
- Conservation Monitor Report
- Area Leak Report
- Ability to create User-defined Reports

**FUTURE MIGRATION COSTS** – The number of ORION Gateway receivers that are needed is always dependent on factors such as the transmitter installation and topography. However, with an average transmitter reading range of 1200+ feet, you can plan for approximately 5 or less Gateways needed per square mile.

- Wi-Fi Network Option: Approximately \$2,000 per square mile. Installation and Wi-Fi Hardware not included.
- Cellular Network Option: Approximately \$4,250 per square mile. Installation not included.
- Point-to-Point Network Option: Approximately \$5,000 per square mile. Installation not included.

**THE SAFE CHOICE** – Badger's ORION AMR / AMI solution offers utilities many options for network connectivity for today and the future. Let us help you better manage your water utility metering operations.

E. Proposed AMR system must be scalable so that the associated database is at least ODBC compliant so that the County can access AMR data without AMR system software. The County technology department envisions the day when customers can be served with their own (close to real-time) utility usage and billing information via a web portal. Will your company comply with this requirement? Please describe.

*Badger's Meter Data Management software is ODBC compliant and would allow for the utility to access this data through any other utility database systems. Our system is designed specifically to accommodate these types of database requests, because we too feel that if the data is available to the end customer, they can then be more responsible and readily informed about their usage.*

F. Meter Accuracy - The utility requires Positive Displacement type meters. In your submittal, please include meters as an "Alternate". The County is very concerned about accuracies at low flows. Please indicate performance of your meters pertaining to this matter. How can the County confirm that your system meets the x-flow and minimum flow requirements? Please describe.

*Badger Meter is a current supplier to Seminole County for positive displacement meters. There are approximately 14,000 Badger Meter Disc Series meters, sizes 5/8" x 3/4" through 2", in the ground that are less than 8 years old.*

*Badger Meter's Disc Series Meter Line exceeds the AWWA standards for positive displacement meters in all categories. This is especially true as it relates to the topic of accuracy performance, included in your question in Section 2, Item F.*

*The following are a few of those specific performance characteristics:*

	<u>Meter Size</u>	<u>Badger Meter</u>	<u>AWWA Standard</u>
<i>Flow Range</i>			
<i>At 98.5 % Accuracy</i>	5/8"x 3/4"	1/4- 20 gpm	1-20 gpm
	1"	1 - 55 gpm	3-50 gpm
	1-1/2"	2-1/2 - 120 gpm	5-100 gpm
	2"	2-1/2 - 170 gpm	8-160 gpm
<hr/>			
<i>Low Flow</i>	5/8"x 3/4"	1/8 gpm	1/4 gpm
<i>At 95.0 % Accuracy</i>	1"	1/2 gpm	3/4 gpm
	1-1/2"	1-1/4 gpm	1-1/2 gpm
	2"	1-1/2 gpm	2 gpm

*Badger has a higher than average total warranty volume on all these for New Meter accuracy as well as Repaired Meter accuracy. Consistent with that statistic is the higher maximum continuous flow rates allowed across these Disc Series Meters.*

*All meters can be supplied with certified test data.*

G. Support - Availability is very important to the County. The County asks that parts are available in Florida with short turn-around times for orders. Support for billing issues must be identified in presentation. The County requires that computer hardware must be off the shelf equipment. How will your firm comply with this requirement?

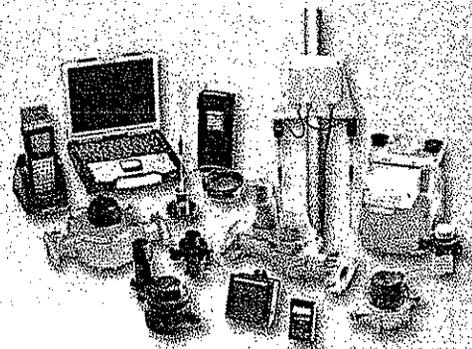
*Steve Portlance is the Account Manager and primary contact for Seminole County. Steve is located in Tampa, FL. Steve is available for support issues and will stock your product needs for a 24-hour turnaround on orders. Additionally, Badger Meter provides a toll free number that is monitored 24/7. Our Technical Support Specialists are available by phone from 7:45 a.m. to 5:30 p.m. CST Monday through Friday to answer you calls, and an emergency paging service is available after hours. The ORION Drive-By AMR System consists of a Ruggedized Windows XP based Panasonic TOUGHBOOK Laptop Computer configured with Premium ORION Reading Software.*

technology delivered.

  
**ORION**<sup>®</sup>  
GATEWAY

# BADGER<sup>®</sup> ORION<sup>®</sup> GATEWAY

ORION  
RADIO FREQUENCY (RF)  
SYSTEM



technology delivered.  
[www.badgermeter.com](http://www.badgermeter.com)

# Badger® ORION® — RADIO FREQUENCY (RF) AMR SYSTEM

## Catch A Rising Star In ORION® Automated Meter Reading

**Flexibility is the key!** ORION® is Badger Meter's most flexible automated meter reading system for water and gas utilities. This proven technology has been designed with the customer in mind, ensuring an easy and effective integration into existing metering systems, both today – and in the future.

**The Clear Advantage.** Badger Meter has combined the latest advances in RF technology to provide a reliable, high-performance solution to your utility meter reading and data collection activities – technology that allows the Badger ORION AMR system to provide “more than just a meter read” to you and your utility's customers. In addition to an accurate, easy to obtain meter reading, utilities are now able to efficiently obtain data profile usage, potential leak, and other information right from their ORION meter reading system. These features, used together with our “personal meter reader,” the Water Meter Monitor, combine to make the ORION AMR system the clear advantage for utilities of all shapes and sizes.

Badger ORION provides:

- Faster Meter Reading
- Greater Reading Accuracy
- Increased Operator Safety
- Fewer “Re-Reads”
- Eliminates “Hard-to-Read” Meters
- Tamper Detection, Leak Detection, Data Profiling, and Other Customer Service Tools

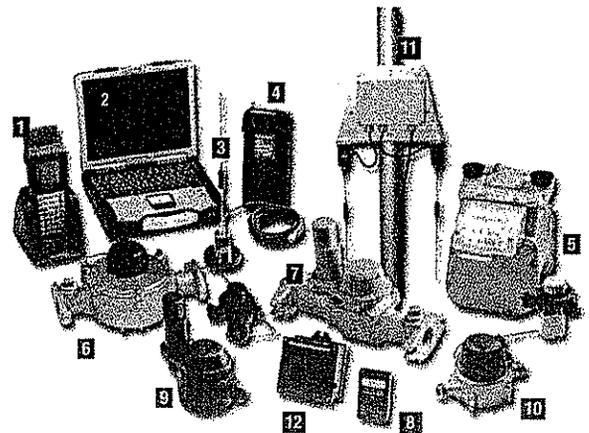
**Badger ORION Water Connectivity.** Because not every utility's needs are the same, the Badger ORION system is easily installed on a wide variety of water meter encoder registers – including our proven Recordall® Transmitter Register (RTR®) or the versatile Absolute Digital Encoder (ADE®). In addition to our own encoders, the ORION system is designed to work in harmony with encoders from the following water meter manufacturers:

- Neptune®
- Elster AMCo®
- Hersey®
- Sensus®

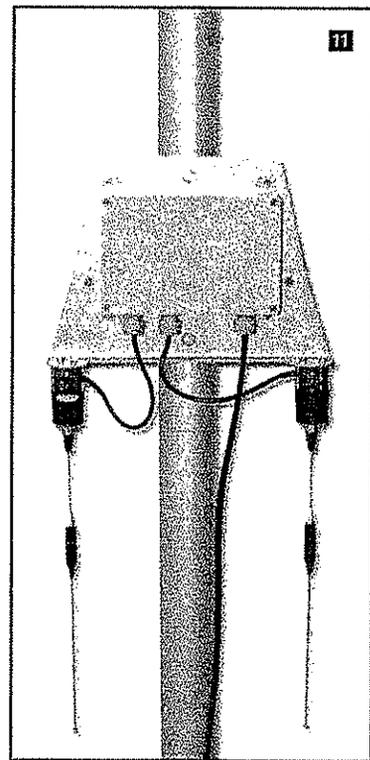
**Badger ORION Gas Connectivity.** In addition to water AMR, the ORION product family also includes a full-featured Gas AMR system. To accommodate the diverse needs of gas utilities, ORION transmitters are available for the following popular residential gas meters:

- American®
- Sensus®, including the Rockwell®, Equimeter®, and Invensys® brands
- Actaris®, including the Metris®, Sprague® and Schlumberger® brands

**Consider the Best.** Whether you're interested in water or gas AMR, the ORION Radio Frequency AMR system from Badger Meter offers a flexible, reliable, and easy-to-use method of gathering meter reading data.



1) Badger®-Radix®, 2) ORION® Reading System (ORS), 3) ORION® Antenna, 4) ORION® ADE® Transmitter Receiver, 5) ORION® Gas, 6) ORION® RTR® Transmitter, 7) Integral ORION®, 8) Water Meter Monitor, 9) Integral ORION®, 10) Remote ORION®, 11) ORION® Gateway Receiver, 12) Remote Profiler



Badger® ORION® Gateway

## Badger® ORION® Hybrid Network Technology

Industry trends indicate the future of utility meter reading will be found in flexible AMR solutions that can adapt to the ever-changing technology climate. Hybrid systems that are able to communicate with the constantly increasing number of public and other wide area wireless networks may have additional advantages to your utility, both today and far into the future. With this in mind, utilities are more interested than ever in ensuring the AMR system they purchase today will provide long-term value and reliability, laying a solid foundation for future advances in transmitter, receiver, and network technologies.

To ensure the Badger ORION AMR system remains in the forefront of utility meter reading technology, Badger Meter has developed, and continues to develop, close alliances with a wide variety of leading manufacturers of public and private networks. These alliances form the basis for a simple and effective multiple migration strategy, allowing utilities all the advantages of premier mobile AMR today, with the benefit of moving to hybrid and other fixed network technologies with the simple addition of the ORION Gateway Receiver – and without the need to reprogram meter endpoints.

**Hybrid Network Options.** Badger Meter has designed the ORION Gateway Receiver to transmit automatic meter reading information to the following networks:

- Wi-Fi (wireless fidelity)
- Direct Computer Connections
- Cellular Network Connection
- Point-to-Point RF
- Other Public and Private Networks

**Increased System Efficiency.** Deployment of ORION and the Badger ORION Gateway Receiver allows your utility to capture data more frequently (interval data), increasing system information and helping you to run your utility in a more efficient and effective manner. Our software program, Badger® Network Reader, is a user-friendly and powerful tool that organizes and reports system data, putting you in control of your metering system – and the important information that is available to you through the Badger ORION AMR system.

## Badger® ORION® Gateway Step-By-Step: How It Works

1. Badger ORION water and gas transmitters are installed at each service connection, “bubbling up” their meter reading and important system and diagnostic information every 4 seconds.
2. The ORION Gateway receiver is strategically installed throughout the distribution system. Once power is provided, the Gateway begins receiving and storing information from the surrounding ORION transmitters.
3. Badger Network Reader software gathers the information from each Gateway, stores this information, and communicates it to the utility through a series of helpful tools and reports.

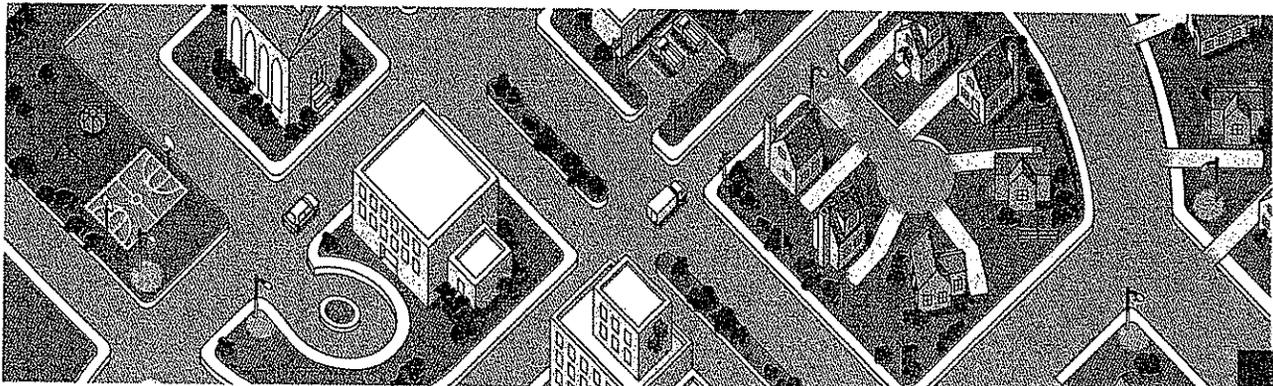
The power of any AMR network lies in the features of its software – its ability to enable the utility to effectively gather metering system data, to use it to produce customer bills, enhance and streamline customer service activities, and to improve decision making within the utility. Badger Network Reader does all this and more, providing you with the tools you need to better serve your customers and utility.

### Badger Network Reader Software

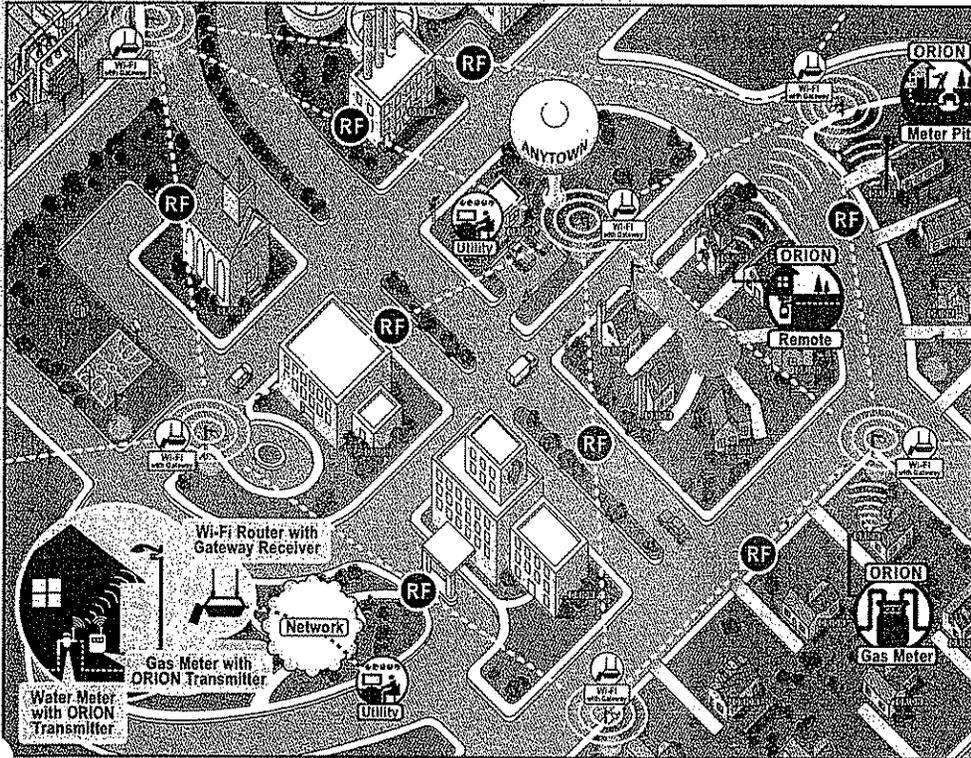
- Downloads interval data from ORION Gateway receivers into its central database at any user-defined schedule.
- Directly interfaces with Badger® CONNECT software, ensuring reliable and accurate account billing.
- Provides the ability to obtain a “now” read from any (or every) transmitter that is communicating to a Badger ORION Gateway receiver.
- Improve the effectiveness of the utility's customer service activities by organizing historical meter reading and other data into useful reports.

### Badger Network Reader Reporting Capabilities

- Meter Reading History
- High Consumption Report
- Leak Detection Report
- Conservation Monitor Report
- Stop Meter Report
- Area Leak Report
- Tamper Detection Report
- User-Defined Reports



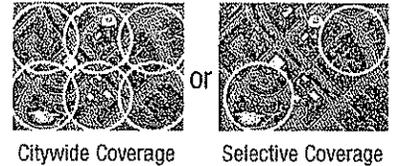
# Wi-Fi



## Application:

When a city deploys a citywide Wi-Fi network, our Badger® ORION® Gateway can be positioned near the Wi-Fi access points and connected via its Ethernet port. Once connected, the Badger ORION Gateway receiver will automatically begin recording readings from all the Badger ORION transmitters in its vicinity. The Badger® Network Reader software tells the Gateway how often you want that data and gathers, organizes and manages the data collection process for you.

## Deployment Coverage:



# Badger's Network Connectivity Solution Partners



Badger®, ORION®, Recordall®, ADE®, and RTR® are registered trademarks of Badger Meter, Inc. Tropos™ and Tropos Networks™ are trademarks of Tropos Networks, Inc. Sensus® is a registered trademark of Sensus Metering Systems – North America, Inc. and its subsidiaries and affiliates. Rockwell™ is a registered trademark of Rockwell Automation, Inc. Equimeter® is a registered trademark of Equimeter Incorporated, a BRT Metering Systems Company. Invensys® is a registered trademark of Invensys. Actaris® and Metris® are registered trademarks of Actaris U.S. Gas, Inc. Sprague® is a registered trademark of Sprague Meter Division of Textron, Inc. Schlumberger® is a registered trademark of Schlumberger Limited Corporation. American® is a registered trademark of American Metering Company, Inc. Neptune® is a registered trademark of Neptune Technology Group. AMCO® is a registered trademark of Elster AMCO Water, Inc. Hersey® is a registered trademark of Hersey Meters. Radix® is a registered trademark of Radix International Corporation, USA. SkyPilot™ is a trademark of SkyPilot Networks, Inc. Cisco™ is a trademark of Cisco Systems Inc. Motorola® is a registered trademark of Motorola Inc. Sprint® is a registered trademark of Sprint Nextel.



4545 W. Brown Deer Road • P.O. Box 245036 • Milwaukee, WI 53224-9536  
800-616-3837 • www.badgermeter.com

ORI-B-03 (6-07)



## OVERVIEW

Working with providers of fixed network products, Badger has expanded the options for a utility today and in the future. The Badger ORION Gateway Receiver allows a utility to move seamlessly from a walk-by or drive-by Badger ORION solution into a fixed network reading system when the city deploys a citywide network with PoE (Power over Ethernet) capabilities (DC power option also available). Badger's ORION Gateway receiver provides connectivity to numerous network hardware manufacturers' equipment due to its simplicity and flexibility.

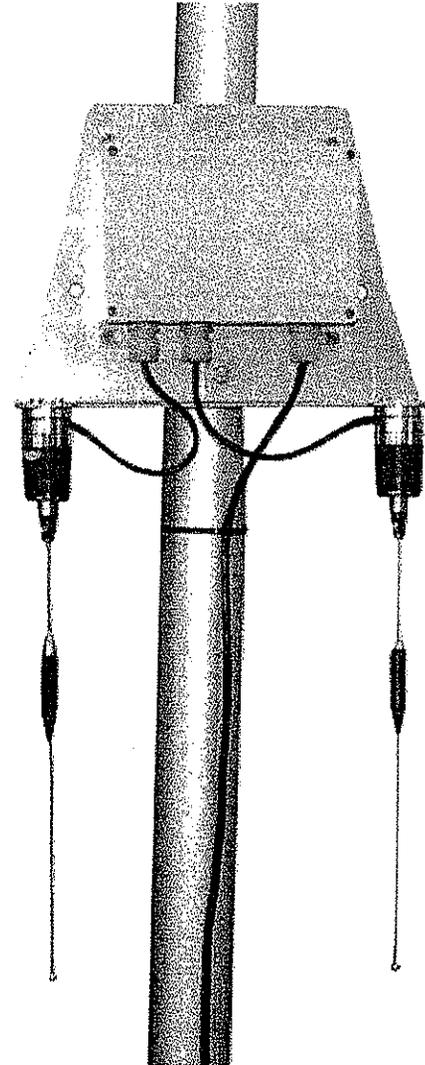
The Badger ORION Gateway is assigned a unique network IP Address and simply listens and records the latest readings from up to 200 Badger ORION transmitters in the area. Utilizing Badger's Network Reader software, the utility can poll the IP Address of the Badger ORION Gateway Receiver at any time and receive and store the latest transmitter readings. The Badger ORION Gateway data transfer has extremely low-bandwidth requirements, so readings can be taken at anytime without slowing the network.

## SPECIFICATIONS

<b>Communications</b>	Ethernet 10 Mbps  Responds to HTTP://IPADDRESS request with meter readings  USB port for configuration of IP address, diagnostics, etc.
<b>RF Receiver</b>	916.45 MHz receiver  Two antennas for diversity  Designed for Unintentional Radiator, FCC Part 15 Compliance
<b>Memory</b>	Flash storage for Badger ORION Gateway serial number, IP address, configuration  RAM storage for 200 meter readings (volatile), leak status, tamper status
<b>Gateway Programming</b>	Badger ORION Gateway receiver will automatically listen to and store the first 200 Badger ORION transmitters it hears after it is properly installed - no customer programming required.
<b>Power Supply</b>	802.3af Powered Device Compliant
<b>Optional Power Supply</b>	D.C. Input (9-40 volts)
<b>Mechanical</b>	NEMA 4X Enclosure.
<b>Weight</b>	6.3 lbs.
<b>Wind Loading Area</b>	0.6 ft. <sup>2</sup>
<b>Size</b>	Height with antennas: 24.25" Width: 11.75" Thickness: 2.75"

The Badger ORION Gateway Receiver contains the following components:

- Gateway Receiver
- 900Mhz Receiving Antennae
- Weather-tight Enclosure
- Mounting Bracket with Pole Banding
- Cables



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Badger® and ORION® are registered trademarks of Badger Meter, Inc.

Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding contractual obligation exists.



Please see our website at  
[www.badgermeter.com](http://www.badgermeter.com)  
for specific contacts.



**BadgerMeter, Inc.**

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**DESCRIPTION**

**APPLICATIONS:** The Badger® ORION Recordall® Transmitter Register (RTR) Transmitter is a fully potted AMR transmitter designed for all water applications including indoor, outdoor, and water meter pit and vault installations that are subject to flooding. The ORION RTR Transmitter is offered in two different configurations to provide maximum performance. The ORION RTR Transmitters include transmitters for non-metal lid and remote applications and a second transmitter for metal lid applications. When assembled to the Badger RTR, the product is fully compatible for use with Recordall Disc Series, Turbo Series, Compound Series, Fire Series Meter and Assemblies and Magnetoflow® Mag Meters with digital output.

**OPERATION:** The ORION RTR Transmitters operate using bubble up (broadcast) Radio Frequency technology, which does not require the utility to obtain an FCC license. ORION RTR Transmitters shipped connected to a Badger Meter encoder register are factory wired, programmed, and ready for installation. ORION RTR Transmitters automatically begin broadcasting RF data upon measuring the first usage of water.

In addition to the bubble up signal for walk-by/drive-by applications, the ORION RTR Transmitter will also transmit a periodic high power signal to support connectivity to network reading systems.

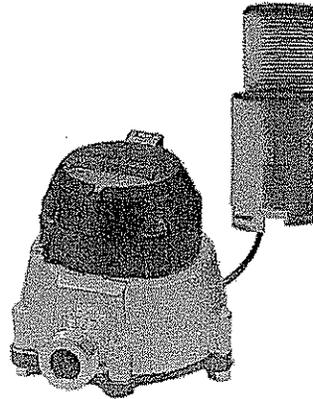
**LEAK DETECTION:** The ORION system provides leak detection notification when the meter is read. The system reports leak detection when a one-hour window of no usage is not found within a 24-hour time period. The system automatically resets when the next one hour time period of no usage is found.

**NO USAGE:** ORION Transmitters provide notification of accounts with no usage when they are read. Transmitters with no usage are any accounts that do not measure consumption of water over a 30-day time period. The no usage notification automatically rests after flow resumes at the account.

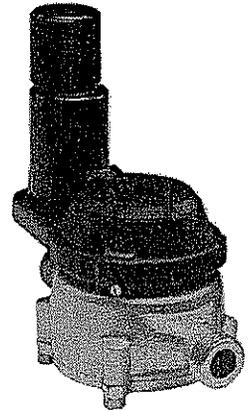
**DATA PROFILING:** ORION Transmitters can be purchased with an optional Data Profiling feature. The ORION Data Profile Transmitter includes all of the same features and functionality of the ORION Transmitter plus a customer programmable data storage option. The Data Profile information provides utilities with an additional customer support tool to determine customer tampering and to help resolve high water usage disputes. With the capability to store over 21,000 consumption readings, based on an hourly time interval, the ORION Data Profile Transmitter can accumulate over two years worth of customer usage for analysis.

**MOUNTING:** The ORION RTR Transmitter is packaged in an enclosure that is fully encapsulated in epoxy that can be mounted in any indoor, outdoor or pit application. Different mounting kits are available to install the ORION RTR Transmitter in basement/remote applications and all of the different pit installations including through lid, below lid, deep vault and composite lid applications.

All Badger Meter encoder registers use a bayonet style connection compatible with all Recordall Disc Series, Turbo Series, Compound Series and Fire Series Meters and Assemblies. A TORX® seal screw



Bronze M35 with  
ORION Pit or Remote  
Transmitter



Bronze M25 with  
ORION Integral  
Transmitter

**SPECIFICATIONS**

<b>Operating Temperature</b>	-40F to 140F (-40C to 60C)
<b>Humidity</b>	0% to 100% Condensing
<b>Battery on Pit ORION Broadcast Technology</b>	(2) 3.6V 2.4 Ahr Lithium Batteries Nonlicensed, Bubble Up Technology
<b>Leak Detection</b>	Based on 24-Hour Time Period with Automatic Reset
<b>Data Profile</b>	Option to Store 21,000 Consumption Reading

is provided to allow positioning and to secure the Badger encoder register to the meter body in a tamper-resistant mode.

**MAGNETIC DRIVE:** Direct drive, high-strength, magnetic coupling through the meter body to the wetted magnet provides reliable and dependable register coupling.

**TAMPER-PROOF FEATURES:** Removal of the Badger RTR register from the meter can be minimized using a tamper-resistant Torx seal screw. Torx seal screws are provided as a standard accessory with Badger RTR registers.

**CUT WIRE TAMPER INDICATION:** ORION RTR Transmitters have the capability to detect and report a tamper. Tamper information is collected and stored by the reading equipment and can be sorted through reports to help manage the ORION system.



## DESCRIPTION

**APPLICATIONS:** The Badger® ORION® Universal 1 Transmitter is factory programmed for connectivity to compatible encoders including: Sensus® ECR II and ICE™ encoder, Neptune® ProRead® and E-Coder™ registers, Elster AMCo® Scancoder® and Invision, and Hersey® Translator encoder. All ORION Universal 1 transmitters have intelligence built into the electronics to allow the unit to automatically determine which encoder it is connected to without programming.

The Universal 1 Transmitter is designed for water indoor, outdoor or pit installations that are subject to flooding or submergence. The Universal Transmitter is offered in two different configurations to provide maximum performance for each application. The transmitters include pit transmitters designed for metal lid applications and non-metal/remote applications.

In addition to the bubble up signal for walk-by/drive-by applications, the ORION Universal 1 Transmitter will also transmit a periodic high power signal to support connectivity to network reading systems.

A separate ORION Universal Transmitter is also available for the Neptune ARB® V encoder.

**RESOLUTION:** ORION Universal Transmitters broadcast an electronic reading resolution equal to what is provided by the encoder register connected to it. The Universal 1 Transmitter offers an electronic reading of up to six digits.

**LEAK DETECTION:** The ORION Universal Transmitter provides optional leak detection notification when the meter is read. The system reports leak detection when a two-hour window of no usage is not found within a 24 hour time period. The system automatically resets when the next two hour window of no usage is found.

**NO USAGE:** ORION Transmitters provide notification of accounts with no usage when they are read. Transmitters with no usage are any accounts that do not measure consumption of water over a 30-day time period. The no usage notification automatically rests after flow resumes at the account.

**REVERSE FLOW:** Badger ORION ADE® Transmitters provide reverse flow notification as part of their standard consumption message. Transmitters report reverse flow notification alarm for 30 days after the occurrence. The reverse flow notification will automatically reset after the reverse flow condition is corrected.

**DATA PROFILING:** ORION Transmitters can be purchased with an optional Data Profiling feature. The ORION Data Profile Transmitter includes all of the same features and functionality of the ORION Transmitter plus a customer programmable data storage option. The Data Profile information provides utilities with an additional customer support tool to determine customer tampering and to help resolve high water usage disputes. With the capability to store over 21,000 consumption readings, based on an hourly time interval, the ORION Data Profile Transmitter can accumulate over two years worth of customer usage for analysis.

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Universal 1 Transmitter

**CONSTRUCTION:** The ORION Universal Transmitter is constructed of a threaded plastic housing with an ORION RF board completely encapsulated in a waterproof epoxy.

**TEMPERATURE:** The operating temperature of the ORION Universal 1 Pit and Remote Transmitter is -40°C to 60°C (-40°F to 140°F). The water meter should not be subject to temperatures below freezing.

**WIRE CONNECTIONS:** The ORION Universal Transmitter can be wired up to any approved encoder register with up to 75 feet of wire.

**ELECTRICAL:** The electronic circuitry of the ORION Universal 1 Transmitter is designed to provide immunity to electrical surges and transients per IEC801-2, IEC801-4 Severity Level 4.

**METER COMPATIBILITY:** The ORION Universal 1 Pit and Remote Transmitter is compatible with Sensus ECR II and ICE encoders, Neptune ProRead and E-Coder registers, Elster AMCo Scancoder and Invision registers and Hersey Translator encoders. A separate ORION Universal Transmitter is available for the Neptune ARB V encoder.

## CAUTION

The ORION Universal Transmitter should only be connected to a Badger Meter approved product. Connection to an unapproved product will void the transmitter warranty.

## WARNING

**TRANSPORTATION:** The Federal Aviation Administration prohibits operating transmitters and receivers on all commercial aircraft. When powered, the ORION Universal 1 Pit and Remote Transmitter are considered an operating transmitter and receiver and cannot be shipped by air.

**LICENSE REQUIREMENTS:** This device complies with Part 15 of the FCC Rules. Operation of this device is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. Any changes made by the user not approved by Badger Meter can void user's authority to operate the equipment. No license is required by the utility to operate an ORION meter reading system.

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Exhibit "B"

PURCHASE ORDER  
PURCHASING AND CONTRACTS DIVISION  
SEMINOLE COUNTY GOVERNMENT  
1101 EAST 1ST STREET, ROOM 3208  
SANFORD, FL 32771-1468  
OFFICE (407) 665-7116  
FAX (407) 665-7956

03/22/05  
Page - 1  
Order Number 12501 000 OP

Shipped From:

Branch/Plant:  
Requestor:

Ship To:

# SAMPLE PURCHASE ORDER

Delivery: On an as needed basis

Ship prepaid add freight to invoice  
Division contact for the order is Deana Brown at 407.665.1003

Line	Rev	Description	Ordered	UOM	Unit Price	Extended Price	Order No	Ty
1.000	0	Release Order A/B-3006-00/JVP		EA	.0000	3,900.00	00006714	OR
						140200,530520		

Release Order for uniform shirts and pants in accordance with terms and conditions of A/B-3006-00/JVP -  
Term Contract for Athletic Wear for a period ending 11/2005. Order to be placed on an as needed basis.

3,900.00 \*\*\* Total Order

Purchasing Agent:

  
COHEN, BETSY