

City of  
**FRESNO**  
DEPARTMENT OF PUBLIC UTILITIES  
WATER DIVISION

**MEMORANDUM**

**DATE:** July 9, 2024

**TO:** GEORGEANNE A. WHITE, City Manager  
City Manager's Office

**FROM:** BROCK BUCHE, PE, PLS, Director  
Department of Public Utilities

**BY:** CASSIE L. SCHOLZ, PE, Licensed Engineer Manager  
Department of Public Utilities – Utilities Planning and Engineering

**SUBJECT: UNIQUELY QUALIFIED AFFIRMATION FOR BADGER METER, INC.,  
TO PERFORM SERVICES RELATED TO THE CITY'S ADVANCED  
METERING INFRASTRUCTURE SYSTEM**

The purpose of this memorandum is to request City Manager affirm Badger Meter, Inc. (Badger) is uniquely qualified to provide services for the City of Fresno's (City's) Advanced Metering Infrastructure (AMI) system that is used for collecting and managing water consumption data for customer billing and water usage analytics. Affirming this qualification will allow staff to request that City Council approve renewal of the contract with Badger for data hosting and technical support services for the AMI system platform and to upgrade the water meter reading and data management software platform.

**Executive Summary**

On January 14, 2010, the City selected Badger through a competitive selection process to serve as the City's provider of water meters and related parts, and the integrated AMI system for wireless water meter data collection and data management for customer billing and water usage analytics. With this competitive selection, the City effectively standardized Badger's integrated AMI products and services for water meters and customer billing. The Department of Public Utilities (DPU) seeks to renew the agreement with Badger to upgrade to Badger's latest data management software service and to transition from a Radio Frequency (RF)-based wireless transmitter system to a cellular-based system using Badger's ORION cellular endpoints.

Badger's wireless water meter data collection and management system is called the BEACON Advanced Metering Analytics System (BEACON), and it is proprietary to Badger. This, combined with the City's selection that standardized Badger products and services for wireless water meter data collection and management, makes Badger uniquely qualified to provide these services.

The five-year software purchase and services agreement is a unit-price based contract, and the annual compensation is calculated by multiplying the unit prices for software and service by the number of water utility accounts in the City's water service area. The transition from the RF technology to cellular technology will take approximately four years. During this time of transition, the City will be charged a blended fee for both services until the older technology has been completely phased out. Once the current 141,500 existing accounts have been updated, the annual compensation will be \$1,001,820.00, with a total contract amount of \$4,731,378.75. The contract total includes continued essential software services taking place after the expiration of the previous agreement.

#### **Background of Badger BEACON used by DPU**

On January 14, 2010, the City Council awarded a requirements contract in the amount of \$22,247,679.89 to Badger to serve as the City's AMI vendor for a fixed-network, Automated Meter Reading (AMR) system for the City's water utility accounts. Subsequent to awarding the requirements contract to Badger, the City Council authorized a series of contracts with construction contractors to install the new Badger AMI meters throughout the City for approximately 110,000 residential accounts. The installation of the City's AMI system was completed December 31, 2013, and the total cost to complete the AMR system purchase and installation was \$76.8 million, which included the \$22.2 million awarded to Badger.

On February 19, 2018, the City Council approved a Software Purchase and Services Agreement with Badger for a not-to-exceed amount of \$350,000 per year for a term of five years. This agreement provided a water meter reading and data management Software as a Service (SaaS) platform, data hosting, and technical support services for the AMI system platform. There is an urgent need to renew the agreement and continue Badger's services, as well as upgrade the service agreement to include cellular reading technology via the Badger ORION cellular endpoints. The upgrade to cellular technology will allow for unlimited expansion, remove the need for proprietary gateways, and reduce infrastructure requirements over time. The current lifecycles of the RF endpoints and supporting infrastructure are ending and the newest version of cellular endpoints are currently being installed. Utility Billing and Collections (UB&C) must currently conduct manual reads or utilize usage averages when the RF endpoints fail and are replaced with cellular endpoints.

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The Badger cellular endpoint technology requires the BEACON proprietary Network as a Service (NaaS) to collect water meter data from the cellular endpoints, providing monthly usage readings to UB&C for their 141,500 customer billings. The NaaS system will work in collaboration with the SaaS system as the City transitions from RF to cellular endpoints. The BEACON software and the cellular endpoints utilize the existing cellular network and will eliminate the need for the City to maintain data collectors and gateways currently located around the city. This upgrade will require less maintenance and equipment replacement and allow for expansion of the AMI infrastructure to wherever a cellular network exists. The updated BEACON system will also enable the City to automate reports, assisting with notification of overwatering and leak detection. Additionally, the BEACON EyeOnWater portal is an integral part of the software, and allows water customers to monitor their water use, detect leaks and understand water usage trends.

The justification for requesting a uniquely qualified finding is based on the following:

1. With the expenditure of \$76.8 million to install Badger's AMI system, the City effectively standardized Badger's AMI products and services for the foreseeable future. While it is possible to migrate to an alternate AMI vendor for data collection and data management services, such a decision would also require the City to change meters, transmitters, and gateways, and the estimated cost for equipment and materials only would be well over the \$30 million estimated in 2018.
  2. The BEACON System, is required to provide water utility billing services for the City's approximate 141,500 accounts. The current BEACON SaaS software platform will not support the newer cellular endpoint NaaS technology that is currently being installed.
  3. The BEACON NaaS technology, which works in collaboration with the SaaS, will facilitate the use of cellular technology. This change will allow the City to remove gateways from around the City and utilize an existing cellular network. This transition will reduce maintenance costs, remove the need for additional agreements to locate gateways, improve data collection frequency and reliability, and allow for unlimited expansion of the AMI infrastructure.
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**Recommendation**

Based on the findings above, DPU believes it is appropriate and warranted for the City Manager to make a uniquely qualified finding for Badger Meter Inc. and the purchase of the of the BEACON System water meter reading and data management software platform and services. DPU will seek Council award in the amount of \$4,731,378.75.

Should you have any questions or require additional information please contact Chad Colby at 559-621-5315.

Approved                       Denied

  
\_\_\_\_\_  
Georgeanne A. White, City Manager

  
\_\_\_\_\_  
Date

- Attachments:  
Attachment 1- Badger Sole Source Customer Letter  
Attachment 2- Badger 5-Yr Service Unit Proposal

CC: Nichlas D. Mascia, PE, TE, PTOE, Assistant City Manager

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**Attachment 1 - Badger Sole Source Customer Letter**



4545 W Brown Deer Road  
PO Box 245036  
Milwaukee, Wisconsin 53224-9536  
414-355-0400 | 800-876-3837  
[www.badgermeter.com](http://www.badgermeter.com)

March 7, 2022

Mr. Ronald Simons, Water System Supervisor  
The City of Fresno  
2600 Fresno St  
Fresno, CA 93721

**RE: Sole Source Letter**

Dear Mr. Simons:

This letter will confirm that Badger Meter is the sole manufacturer of all Badger Meter products including, but not limited to, HRE-LCD® registers, ORION® cellular endpoints and BEACON® Software as a Service (SaaS) for the City of Fresno, CA.

In the event you have any questions regarding this correspondence, we can be reached by telephone at 800-876-3837 ext. 17237 or via email at [bids@badgermeter.com](mailto:bids@badgermeter.com).

Sincerely,

BADGER METER, INC.

A handwritten signature in blue ink, appearing to read 'Charla D. Dury'.

Charla D. Dury  
Assistant Secretary



## Attachment 2 - Badger 5-Yr Service Unit Proposal

Domestic Quotation  
Quotation No. 3644665

Badger Meter Inc.  
4545 W Brown Deer Road Milwaukee WI 53223  
PO Box 245036 Milwaukee WI 53224-9536

**Revised Date**

**To** SOLD TO CUSTOMER 00040472  
Eric Rocha  
CITY OF FRESNO  
1910 E UNIVERSITY  
FRESNO  
California 937032927

**Customer ID** 00040472

**Pricing Effective Dates** 07-01-2024 -  
06-30-2029

| Salesperson        | Proposal Subject              | Shipping Terms / INCO Terms     | Payment Terms |
|--------------------|-------------------------------|---------------------------------|---------------|
| 007435 DAN GILLIAM | 5 YEAR CELLULAR SERVICE UNITS | PREPAY/NO CHARGE<br>FCA FACTORY | NET 30 DAYS   |

| Line # | Description   | Qty     | Unit Net Price USD | Line Totals USD |
|--------|---|---------|--------------------|-----------------|
| 1      | <b>BMI Part No.: 68886-104</b><br>Customer Part: OUTSTANDING BADGER SERVICES - 68886-104<br><b>Description:</b><br>ORION CELLULAR LTE SERV UNIT   | 1473875 | 0.330              | 486,378.75      |
| 2      | <b>BMI Part No.: 68886-104</b><br>Customer Part: YEAR 1 (July 1,2024 -- June 30th, 2025) NOT TO EXCEED 56,500 CELLULAR ENDPOINTS<br><b>Description:</b><br>ORION CELLULAR LTE SERV UNIT | 1698000 | 0.330              | 560,340.00      |
| 3      | <b>BMI Part No.: 68886-104</b><br>Customer Part: YEAR 2 (July 1,2025 -June 30th, 2026) NOT TO EXCEED 91,500 CELLULAR ENDPOINTS<br><b>Description:</b><br>ORION CELLULAR LTE SERV UNIT   | 1698000 | 0.440              | 747,120.00      |
| 4      | <b>BMI Part No.: 68886-104</b><br>Customer Part: YEAR 3 (July 1,2026 - June 30th,2027) NOT TO EXCEED 123,500 CELLULAR ENDPOINTS<br><b>Description:</b><br>ORION CELLULAR LTE SERV UNIT  | 1698000 | 0.550              | 933,900.00      |
| 5      | <b>BMI Part No.: 68886-104</b><br>Customer Part: YEAR 4 (July 1, 2027 - June 30th, 2028) NO LIMIT ON CELLULAR ENDPOINTS<br><b>Description:</b><br>ORION CELLULAR LTE SERV UNIT          | 1698000 | 0.590              | 1,001,820.00    |

**Thank you for your business!**

Estimated ship dates subject to change based upon component availability, as a result of global supply chain constraints, or credit review.  
 This acknowledgment is made subject to the terms & conditions found on our web-site: <https://www.badgermeter.com/terms-and-conditions>.  
 Terms and conditions related to service units, training, and professional services can be found here: <https://badgermeter.com/service-units-terms-and-conditions>



| Line # | Description  | Qty     | Unit Net Price USD | Line Totals USD |
|--------|--|---------|--------------------|-----------------|
| 6      | <b>BMI Part No.: 68886-104</b><br>Customer Part: YEAR 5 (July 1, 2028 - June 30th, 2029) NO LIMIT ON CELLULAR ENDPOINTS<br><b>Description:</b><br>ORION CELLULAR LTE SERV UNIT | 1698000 | 0.590              | 1,001,820.00    |

|                          |              |
|--------------------------|--------------|
| <b>Subtotal - USD</b>    | 4,731,378.75 |
| <b>Total Price - USD</b> | 4,731,378.75 |

**Notes and Assumptions**

**LINE 1 INVOICE DETAILS :**

- 08/30/23 - Invoice #80137195
- 10/30/23 - Invoice #80142545
- 11/29/23 - Invoice #80145204
- 12/28/23 - Invoice #80147966
- 02/13/24 - Invoice #80151491
- 02/28/24 - Invoice #80153267
- 03/28/24 - Invoice #80155612
- 05/01/24 - Invoice #80157971
- 05/29/24 - Invoice #80160949

If applicable, sales tax and freight, if included on the proposal, is an estimate and will be recalculated based on rates and tax status in effect at the time of invoicing.

To expedite the order entry process, please ensure the following is noted on your purchase order: billing address, shipping address, purchase order number, quantity, price, payment terms, quotation number, and the vendor is listed as Badger Meter, Inc.

Please send all purchase orders to the contact that prepared this quotation for you.

Actual lead time to be provided at time of order.

Badger Meter provides certification files to help manage meter and endpoint inventory and to maintain meter accuracy data. The standard method of delivery for this format is via electronic mail. Any deviations from our standard format, or any custom file formats, will be considered on a time and material basis.

Due to continuous improvements and redesign of Badger Meter products and technology solutions, Badger Meter reserves the right to provide our newest product solutions as an alternative to the proposed products provided they are in conformance with the requirements of the specifications and do not exceed the prices quoted.

**Thank you for your business!**

Estimated ship dates subject to change based upon component availability, as a result of global supply chain constraints, or credit review.  
 This acknowledgment is made subject to the terms & conditions found on our web-site: <https://www.badgermeter.com/terms-and-conditions>.  
 Terms and conditions related to service units, training, and professional services can be found here: <https://badgermeter.com/service-units-terms-and-conditions>