

**ITB 18-101004 Water Meters and Parts  
(Annual Contract with Options to Renew)  
Evaluation Report**

1. DWM did extensive research in order to determine the water meters which would operate efficiently in the current infrastructure and a vendor who could supply existing In order to ensure DWM received adequate responses from the market place for products that met the minimum specifications, they required two (2) steps for vendors to submit a bid. The first step was for vendors to submit a product specification sheet that met the requirements outlined in the minimum specifications. Vendors also submitted a price schedule in a separated sealed envelope on the date bids were due. This solicitation took over a year just to get a scope of work and meters that would pass a test for capability to operate and include parts that would be compatible with what is already installed in the infrastructure where water meters and its parts are previously installed. This occurred over this section of the time-line
  - a. November 20, 2018 There was an additional concern about the discount of items not on price sheet; sent that question back to the DWM which was forward back to P&C with their response.
2. Advertisement was December 24, 2018.
3. Bid Opening occurred on **January 29, 2019** one (1) bid were received and two (2) “No Bid” letters from the following prospective bidders.
  - a. Kendall Supply, Inc.
  - b. Mueller System: submitted a “No Bid” letter
  - c. National Meters and Automation: submitted a “No Bid “letter.
4. Responsive Evaluation
  - a. The prospective responsive responsible bidder is Kendall Supply
  - b. Muller System and National Meters and Automation – submitted “No Bid” letters
5. The Price Schedule for the responsive bidder was opened on: February 11, 2019 at 2:30 p.m.
6. The Bid Tabulation was prepared and posted to the County website on February 15, 2019.
7. DWM recommended award to the lowest, responsive and responsible bidder, which was Kendall, the recommendation received by P&C on 3/27/19.
8. The agenda item package was initiated and entered into Legistar.

## EVALUATION REPORT FOR WATER METER PARTS

By: The Department of Watershed Management

DeKalb County Department of Watershed Management (DWM) contracted with independent Engineering firm, Arcadis to perform the Technical Review of ¾” and 1” residential water meters for DWM in March 2017. Under this task order, Arcadis was to review existing DeKalb specified meters as well as alternative meters to compare technical characteristics focusing on the housing, registers and measuring chambers of each meter product. Arcadis was tasked to review available meter life expectancy and warranty information for both existing DeKalb County water meters as well as alternative manufacturers that are compatible with DeKalb County’s existing Advanced Metering Infrastructure (AMI), Sensus FlexNet. In addition, Arcadis was tasked to collect water meter products from different prequalified manufacturers for meter types and models needed for the study in order to coordinate bench testing with internal DeKalb County DWM staff. The duration of the study was 6 months and Arcadis provided the findings of the study to DWM in September 2017. The results from the study were used by DWM in the selection of water meters that are compatible with the existing AMI system as well as best meets the County’s water meter replacement goal.

The results from the study divided the meters into 2 separate groups – solid state (ultrasonic and magnetic electronic static type) and mechanical (positive displacement) water meters. Each different water meter model from alternative manufacturers that are qualified were reviewed and scored under these two categories. The study began with reviewing technical characteristics of each meter model and compared operating characteristics of existing and alternative meters. Meters that met minimum criteria were bench tested to confirm the compatibility of selected meters with existing FlexNet System. In addition to the bench test, the life cycle cost analysis was performed to outline the various cost of each meter throughout its life cycle which also include warranty and life expectancy.

In 2017, the DeKalb County water meter inventory in the system includes Sensus iPERL (pre-and post- 2014), Sensus SR (ECRII, ICE register, manual read), small number of Neptune T-8. However only Sensus iPERL was considered as part of the study under solid state meter category since others are no longer manufactured or were replaced with newer model. Sensus accu STREAM which is the newer model for the positive displacement meter to replace Sensus SR was part of the study under mechanical meter category. Other manufacturer meters that are compatible with Sensus FlexNet that were part of the study include the Badger Recordall® Disc Meters (Bronze and Polymer), Mueller 435 and 452 Bronze Positive Displacement (PD) Meters, Master Meter PD Meter and Neptune’s T-10™ and Mach 10® meters. The Badger E-Series was included in this analysis due to its technical performance however its compatibility with the Sensus FlexNet system is limited.

Based on the study, the table below show the scoring results for ¾” water meters.

**Solid State Meters - Overall Scores**

Meter	Score
1. Sensus iPERL	465
2. Neptune Mach 10®	395
3. Badger E-Series®-SS	365

**Positive Displacement Meters - Overall Scores**

Meter	Score
1. Sensus accuSTREAM	335
2. Badger Recordall® Model 35 Bronze	290
T3. Hersey-Mueller 435 Series Bronze	285
T3. Neptune T-10®	285
5. Badger Recordall® Model 25 Polymer	270
6. Master Meter PD Meter	240

Based on the above results, DWM selected Sensus accuSTREAM which ranked the highest score under positive displacement (mechanical) meters to be used for the water meter replacement program for the County. Sensus iPERL, which ranked the highest under Solid State Meters was not selected due to settlement agreement between DeKalb County and Sensus. The solid state meters feature the more advanced technology, however DeKalb County Leadership made business decision to select positive displacement meters over solid state meters in order to restore trust and confident in customer bases due to its technology. This decision was based on several factors. First, not enough outreach was done for implementation of the solid state meters. Second, solid state meters have a high degree of accuracy which would most likely result in higher water bills for residents. Other words going from 1 to 100 without advanced notice was ruled out. Third and last the County elected to move forward with the Sensus accuSTREAM model due to its AMI network compatibility. Attached is the result from the Technical Review of Water Meters Study from Arcadis for reference.