

Water Meter Discrepancy Solution

Frequently Asked Questions (FAQ)

January 28, 2015

1. What caused the water meter discrepancies?

The water meter discrepancies occurred because of a difference in the inside water meter (generally located inside the home and not readily accessible by meter readers) and the outside “Read-O-Matic” which displays the meter reading of the inside water meter. This “Read-O-Matic” is connected to the inside water meter by a small wire. The discrepancy occurs when the inside meter reads something different than the outside display and can be caused by a variety of factors including a break in the connecting wire, insects getting into the display of the “Read-O-Matic”, and other environmental conditions including moisture and direct sunlight on the display.

2. How is the City sure that the inside meter is correct and the outside water meter is wrong?

The outside meter is actually not a meter; it is only a display that is supposed to show the meter reading from the inside water meter. Only the inside water meter is connected to the water pipes and records the amount of water that is consumed by the customer. Also, if there was a discrepancy between the inside meter and the “Read-O-Matic” on the outside, the Water Department took the additional step to test the meter that was removed and verify that it was within the DEQ approved specifications for water meters. None of the meters that were tested were found to be outside of specifications.

3. Will this problem happen again?

While we can expect this problem to continue until all of the older water meters are replaced with AMI compliant meters, once all the meters are replaced, the new methodology for reading the meters will eliminate this from ever happening again. The new meters broadcast a reading to the wireless network which transmits the information to the City. While it may be possible that due to normal mechanical breakdowns that a meter read is not sent to the City, in the future there will either be a correct read or no read. There will not be a possibility of an incorrect read.

4. What is the City Commission doing to “make this right”?

After much review and consideration, the City Commission adopted a policy that makes all residents responsible for a water meter discrepancy of up to a maximum of ten units of water and sewer charges. For those individuals who have already been billed for the amount of the discrepancy, their bill will receive a credit for the cost associated with the number of units of water and sewer charges over 10 and for those individuals who have not yet been billed for the discrepancy, will only be billed for the amount of the discrepancy or 10 units of water and sewer; whichever is less. This refund will only be done in the form of a credit on the account. No actual cash refunds will be made unless the credit is being applied to an account which has been finalized and there is no existing balance.

5. How will I get my money back?

Generally, no cash refunds will be given. A credit for the amount of the charges in excess of 10 units will be applied to the individual accounts that were charged for the discrepancies. This credit may result in the customer not having to pay a current utility bill for 1 or more months depending on the amount of the credit that is applied to the account. The only exception will be for those customers who were charged for and paid for a meter discrepancy and subsequently closed their utility account. Assuming that there is no remaining balance, this credit will result in a cash refund to the customer.

6. When will I get my money back?

It is expected that within the next two weeks that a letter will be sent to all customers who will be receiving a credit because of the water meter discrepancy issue. At the same time as the letters go out to customers, the credits will be applied to the customer’s accounts. The customers will see this credit on their accounts as they receive their next bill over the next month.

7. How do you know the new water meters are any more accurate than the existing water meters?

The AMI compliant water meters that are being installed in customer’s homes and businesses are new and are subjected to the various quality controls that the manufacturer applies to their production processes to assure that the meters are accurate when they are completed. However, to go one step further, the water department is independently testing every sixth water meter to verify that it tests within the DEQ mandates accuracy standards. That process is on-going with the installation of all new water meters.

8. When was the last time that my inside meter was read by the City?

Unlike the electric meters which are installed on the outside of customer's homes, water meters are always installed inside the home and require that the customer grant access to the Water Department to gain access to the meters. Although there have been two initiatives by the City in the last decade to read all inside water meters, both of these initiatives were only able to read approximately 25% of the water meters in the City. Many water meters have not had an inside reading for more than 25 years.

9. When were the "Read-O-Matics" or outside meters originally installed?

These outside devices were originally installed in the late 70's through the early 80's.

10. Who was the manufacturer of the "Read-O-Matics" or outside meters and were they under warranty?

The "Read-O-Matics" were manufactured by either Badger Corporation or Rockwell International. When originally purchased, these devices were covered under a one-year warranty. This warranty expired many years ago.

11. Why are some residents affected by the water meter discrepancy issue and others are not affected?

Not all customers were affected by the water meter discrepancy issue because not all customers had a "Read-O-Matic" outside meter on their house. Many customers had a touchpad which either provides the correct reading or no reading at all but was not susceptible to the type of errors that plagued the "Read-O-Matics". Also, many of the "Read-O-Matics" performed flawlessly and provided accurate readings throughout their service life.

The "Read-O-Matics" seemed to be especially sensitive to environmental factors such as direct sunlight on the meter, moisture, and contamination by insects. These problems were part of the reason the City decided to upgrade all of the meters to the AMI compliant smart meters.

12. Can a resident prove how much water they actually used?

The inside water meter accurately recorded the amount of water usage by the utility customer. This was verified by taking the additional step to test each inside water meter for customers who had meter discrepancies. All of these tests confirmed that the meter was reading within specifications set by the DEQ (Department of Environmental Quality).

13. Would it be recommended for residents to check their inside meter against the outside "Read-O-Matic" and confirm that the two readings are equal?

Yes, it is possible and recommended that customers who have not yet had their meters changed check the inside and outside numbers to see that they are equal. The City Commission policy that was adopted limits the charges that will be passed on to utility customers to the lesser of the actual discrepancy or 10 ccf's of water and sewer charges.

14. Could a leak cause a meter discrepancy?

No, generally a leak will impact the inside meter and the outside "Read-O-Matic" equally and not be the cause of any discrepancy. These discrepancies were generally caused by environmental factors such as sunlight, moisture, and insects causing the outside "Read-O-Matic" meter to run slower than the inside meter.

15. Why were these discrepancies not noticed before they got so large?

The Accounts Receivable Department regularly monitors utility accounts for large variances from month-to-month and will in some cases request that the meter readers get a special meter read to verify the reading if there was a large positive or negative change in the usage from the previous month. However, most of the customers that were affected did not have meters that stopped, they just began to slow down gradually. As a result, they never triggered the threshold for a "large" variance that needed to further examination. A small discrepancy occurring every month for many years can accumulate to be a very large discrepancy.

16. Was the City aware of these discrepancies before they became such a big problem?

Yes, the City was aware that sometimes there were discrepancies between the inside meter and the outside "Read-O-Matic". However, these discrepancies occurred sporadically and were never the numbers that the City is experiencing with the changing of every water meter. It also should be noted that of the approximately 10,000 water meters which have already been changed, 319 customers who paid for a discrepancy of more than 10 ccf's have been identified by City staff. This calculates to an error rate of just slightly more than 3% of the customers whose meters have already been changed.

Over the last decade there were two attempts to have City staff read all inside water meters. Both of those attempts resulted in only approximately 25% of the meters read due to the inability of City staff to gain access the inside meters. It is at least part of the reason why the decision was made to implement the AMI compliant "smart meters" which eliminates the need to have access to the inside water meter once the network connection is made with the meter.

	City of Bay City Administrative Policy:	
	Approval Date: December 15, 2014	Initial Date: Pages: 1 of 1
	City Manager: <i>Richard Finn</i>	Fiscal Services Director: <i>George Martini</i>

1. Purpose:

The purpose of this policy is to provide direction to staff regarding the proper procedures for calculating and charging water and sewer customers for discrepancies that are found between the inside and outside water meters when the meter is being changed to an AMI compliant water meter.

2. Scope:

This policy only affects those discrepancies that were found during the installation of AMI compliant water meters. It does not apply to any discrepancies found before the beginning of the installation of the AMI meter which began April 1, 2014. Upon completion of the AMI meter installation process, the possibility of a discrepancy between the outside and inside water meter will be eliminated and this policy will no longer be applicable.

3. Responsibility:

It will be the responsibility of the Water Department and the Accounts Receivable Office to properly implement this policy and verify that any costs associated with water charges due to discrepancies between inside and outside water meters are calculated properly and charged to customers consistent with this policy.

4. Policy:

For all customers who have not yet been billed for the meter discrepancy, the maximum charge regarding the discrepancy will be the lesser of the discrepancy or 10 ccf's of water and sewer charges

For all customers who have already been billed for the discrepancy, a credit will be made to the customer's utility account equal to the cost of the water and sewer charges in excess of 10 ccf's. Only customers who were billed for a discrepancy that exceeded 10 ccf's of water will be eligible for any credit.

No cash refunds will be provided to utility customers.

5. References:

None

6. Revision Summary:

Revision Date	Description
12/15/2014	Initial Policy

Of Commission as a Whole:

Whereas, the implementation of the AMI meter program has resulted in the City discovering numerous discrepancies between the inside and the outside water meters; and

Whereas, it is the policy of the City that the inside water meter is the meter that registers the actual water usage; and

Whereas, the City has a current policy where customers whose discrepancy was at least 10 ccf's of water and the inside water meter was read at least three year prior, the costs of the discrepancy was spread over the number of years since the last meter read, and the customer was only charged for the last six years of usage; and

Whereas, numerous customers who had significant meter variances were not covered by the current policy; and

Whereas, "trueing-up" the water and sewer charges with the inside water meter has resulted in sometimes large, unexpected additional water and sewer charges for City water and Sewer customers; and

Whereas, with the implementation of the AMI program and after all of the new AMI compliant water meters are installed, the possibility of these billing discrepancies will be eliminated;

Now Therefore Be It Resolved that the City of Bay City will implement a new policy for all discrepancies discovered after April 1, 2014 when an AMI compliant water meter was switched out for the old style meter. This policy will provide an adjustment or if already paid, will provide a credit for the cost for water and sewer charges in excess of 10 ccf's related to a discrepancy between the outside and inside water meter. This policy will be in effect until the last AMI compliant water meter is installed which will be in early 2015.

City of Bay City, Michigan
Summary of Proposed Policy for Meter ROM Discrepancy Adjustments
December 1, 2014

	Existing Policy ⁽¹⁾	Additional Cost- Proposed Policy 100% ⁽²⁾	Additional Cost- Proposed Policy 56.41% ⁽³⁾	Additional Cost- Proposed Policy 25.00% ⁽⁴⁾
Existing Policy (279 Customers)	77,985.88	48,897.98	0.00	0.00
Customers who had a Meter Discrepancy but did not fall under the existing policy ⁽⁵⁾	<u>0.00</u>	<u>12,246.08</u>	<u>6,907.98</u>	<u>3,061.64</u>
Total Cost of Each Option	<u><u>77,985.88</u></u>	<u><u>61,144.06</u></u>	<u><u>6,907.98</u></u>	<u><u>3,061.64</u></u>
Cumulative Cost of Each Option	<u><u>77,985.88</u></u>	<u><u>139,129.94</u></u>	<u><u>84,893.86</u></u>	<u><u>81,047.52</u></u>

- ⁽¹⁾ The current policy is for customers who have a discrepancy between the inside and outside meter of ten or more units and the inside meter was read more than 3 years previously. This policy results in spreading the costs over the number of years since the last inside read and charging the the discrepancy at the rates that were in place during those years. Any charges for usage more than six years previously is forgiven.
- ⁽²⁾ This policy would forgive all charges in excess of 10 CCF's for all customers including further discounts for customers who fell under the existing policy as well as those customers who were not covered under the existing policy.
- ⁽³⁾ This policy would recognize the reductions that were given under the existing policy and extend no further reductions to those customers who fell under that policy. For the customers who did not fall under the existing policy, a reduction of 56.41% of the cost of the units in excess of 10 would be extended. 56.41% is the average amount of the reductions that were granted to the customers under the existing policy.
- ⁽⁴⁾ This policy would recognize the reductions that were given under the existing policy and extend no further reductions to those customers who fell under that policy. For the customers who did not fall under the existing policy, a reduction of 25.00% of the cost of the units in excess of 10 would be extended.
- ⁽⁵⁾ The City is continuing to review the billing records to identify the customers who were charged for discrepancies in the most efficient manner at the least cost for compilation of the records.