



REGIONAL DISTRICT OF NORTH OKANAGAN

Metering Program – Frequently Asked Questions & Answers

WATER METER IMPROVEMENT PROGRAM

The Regional District of North Okanagan (RDNO) - Greater Vernon Water (GVW) is implementing a Water Meter Improvement Program. Automatic Meter Reading (AMR) technology is being incorporated into the existing GVW meter program. This Water Meter Improvement Program will:

- Improve meter reading accuracy and reduce operations costs
- Improve communication to customers regarding their water consumption
- Allow GVW staff to notify customers of potential leaks in the future
- Improve system safety by identifying back flow
- Replace ageing meters if and where required
- Reduce the need for staff to enter private property to obtain meter reads

FREQUENTLY ASKED QUESTIONS

1. Why is the Water Meter Improvement Program being initiated?

This program has two components – updating the meter reading technology for all GVW customers and replacing old water meters where required.

Currently, water meters are read manually using touchpads located on the outside of buildings. These touchpads will be replaced with an ERT (Encoder-Receiver-Transmitter) to allow remote water meter reading using Automatic Meter Reading (AMR) technology. These ERTs are being installed as manual meter reading is labour intensive, inefficient, and at times unsafe for staff. This upgrade will lower the cost of the meter reading program and improve customer service.

GVW started installing water meters over 30 years ago. Water meters are mechanical devices and like all mechanical devices they wear with age. For this reason, older meters will be replaced so that GVW can ensure that the water meters are providing accurate measurements. Newer meters will only require that an ERT be installed.

2. What will it cost?

There is no charge to the customer for replacing the existing touchpad with an ERT or to replace an existing water meter; it is included in GVW's ongoing maintenance and replacement budget. AMR technology is an investment in GVW infrastructure and will improve accuracy and customer service.

3. What is Automatic Meter Reading (AMR) technology?

AMR uses wireless radio frequency technology to collect meter reading data remotely using low frequency radio waves. These radio waves are generated by an ERT. ERTs are a battery powered device that transmit the meter reading data and have an expected battery life of 20 years. ERTs are typically mounted to the outside of buildings or in a meter pit. Currently in Greater Vernon, water meters are read manually via a touchpad; the ERT will replace this touchpad.



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4. How are the current meters read?

For most metered locations, the meter inside the house or building is connected by a wire through the wall/ceiling to a touchpad mounted to the outside of the home or building. In some cases, meters are located in pits with a touchpad mounted on the pit cover or to a fence post. To get the reading, a meter reading staff member must walk to the touchpad and touch the reading equipment to the touchpad to obtain a reading. Following the ERT installation, the meter will be read automatically using a network of collector antennas located throughout the service area. For any areas that are not currently covered by the network, the meter read will be obtained by staff driving down the street with vehicle mounted reading technology.

5. What frequency is used by the ERTs?

The frequency used is the same as short wave radios (902-928 MHz) and the amount of radio waves that reach a building's occupants are considered negligible as the ERT transmits in short intervals at very low power (less than 1 watt). In comparison, a cell phone emits 800 times more energy than an ERT. A cell phone transmission is continuous during its operation unlike an ERT which transmits intermittently with each transmission lasting less than one second. The ERT radio transmissions occur on a frequency different from those used by television signals, cordless phones, garage doors and pacemakers and will not interfere with these devices.

6. How are the ERTs installed and do I need to do anything?

In most cases, no action is required by the home/building owner as part of the installation of the ERT. A GVW representative will install the ERT by removing the touchpad mounted to the outside of the building and replacing it with an ERT. The building owner is responsible to provide clear and unobstructed access to the touchpad for replacement. If the touchpad is located in an area that is inaccessible due to fencing, animals, or other obstructions, a GVW representative will contact the building owner to schedule an appointment to access the site. Someone 18 years of age or older will need to be at the home or place of business to provide access during the appointment. A GVW representative will have identification with them during all installations.

7. Does someone need to be home for the installation of the ERT?

In most cases no one needs to be home. The installation of the ERT occurs on the outside of the building, using the existing water meter touchpad wiring. At properties where the touchpad is not accessible or the meter is incompatible with the new ERTs, a GVW representative will contact the building owner regarding scheduling an appointment to access the site.



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8. What happens if my meter needs to be replaced?

In cases where an older meter is incompatible with the ERT and needs to be replaced, the owner will be contacted by a GVW representative to schedule an appointment to replace the meter. The water meter is the property of GVW. There are no direct costs to the individual customer as the replacement of water meters is built in to the GVW budget.

The building owner is responsible to provide clear and unobstructed access to the water meter. If there are any boxes or stored items in the way, these need to be cleared prior to the arrival of the GVW representative. If the water meter has been covered by drywall or paneling, it is the owner's responsibility to ensure that the GVW representative has clear access to the meter.

9. Who will be doing the ERT installations and/or meter replacements? How do I know who is authorized to do the work?

The only people who are authorized to replace, install, or work on ERTs or water meters are Regional District of North Okanagan, District of Coldstream and the City of Vernon employees. All authorized representatives installing ERTs or replacing the water meters will have the appropriate identification and will be traveling in clearly marked vehicles. In some instances, the representative at your door may be working in a team and their vehicle may be down the street, not parked directly outside of your house. A representative will contact customers to schedule on-site appointments for meter replacement or if the touchpad is not accessible for the ERT installation.

10. What if I am a tenant and do not own this property?

If you are a tenant, you will be asked to provide the GVW representative with access to the water meter and touchpad (if required). We also ask that you notify the property owner about the notification letter you received.

11. What if my property is a rental?

If you have tenants or if the property is vacant, you are responsible for arranging an appointment for the GVW representative to access the touchpad and water meter.

12. Will my water service be interrupted during the installation?

There will be no service interruption for the installation of the ERT. If your meter needs to be replaced, there will be a temporary interruption and in most cases meter replacement takes approximately 30 minutes.



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13. How do I know that you have my reading and not someone else's?

Each ERT has a unique identification number, which is transmitted along with the meter reading. The unique ERT identification number is linked to your utility bill account number stored on a secure server.

14. What about privacy?

The privacy of customers is a priority for GVW. When the data is sent from the meter to the meter reader, there is no personal profile information connected to that data. The information goes to a handheld device, which is then downloaded to a secure server at the RDNO on behalf of GVW where the ERT identification number is linked to customers' accounts. The RDNO's Information Services department ensures there are security protocols in place to protect transmission of the data. The meter information is shared only with RDNO municipal partners for utility billing purposes and is not shared with anyone else. For instance, if you live in the City of Vernon, information is shared only with the City of Vernon for billing purposes.

15. Is the new AMR system safe?

ERTs use wireless technology to communicate with data readers in much the same way household devices such as cordless phones, cell phones, baby monitors, garage door remotes, radio stations and wireless internet routers work. These devices transmit signals through radio frequency (RF), which are all around us. The low frequency radio waves transmitted by an ERT are less than the signals transmitted by other day-to-day devices. The transmitter will not interfere with other household devices and in most cases, the ERT is mounted on the outside of houses and buildings, away from the occupants.

AMR wireless technology is regulated by the Canadian Radio-Television Telecommunications Commission to ensure ERTs transmit with extremely low power (less than 1/100th of a watt). Each radio transmission lasts less than one second. Health Canada says exposure to this kind of wireless radio technology does not pose any public health risk.

Read more about radio frequency guidelines at:

www.hc-sc.gc.ca/ewh-semt/radiation/cons/radiofreq/index-eng.php

(External Website: Health Canada > Environmental and Workplace Health > Radiofrequency Fields)

For more information on ERTs, please visit: www.iron.com/na/resourcesAndSupport/Pages/RF-Resource-Center-FAQs.aspx

(External Website: www.iron.com > Consumer Resource Centre > Radio Frequency FAQs)



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16. Will I be able to read my own meter?

Yes, meters will have a display so the water consumption can be read directly. Consumption reads of the meter for utility billing purposes must be performed by GVW staff.

17. What happens to the old meter?

Old meters will be recycled appropriately.

18. Can I decline having the touchpad or water meter replaced?

GVW customers cannot decline having their water meter replaced.

Customers can decline having an ERT installed for reading their water meter. In this case, GVW will continue to read the meter manually using the touchpad. **There will be a quarterly charge applied to your utility bill to have the water meter read manually, per the current Greater Vernon Water Rates Imposition Bylaw.** Alternatively, property owners, at their own expense, may choose to:

- a) Install the ERT in a pit along with the water meter at their property line. It should be noted that meter pits are a significant cost and may require a replacement meter if the existing in-house meter isn't suitable for a pit.
- b) Install up to 300 feet of 4 wire 24 AWG cable, in protective casing, running from the water meter register to an irrigation valve box at property line, where the ERT will be installed.
- c) Have the ERT installed inside the building above the foundation and near a window. This would eliminate the need for the property owner to install new wiring to the outside of the building. However, this may not be an option for all customers.

To decline having an ERT installed, the [Encoder-Receiver-Transmitter \(ERT\) Opt Out Form](#) must be filled out and returned to GVW. If an ERT has already been installed at your property, there will be a onetime fee to reinstall a touchpad, and a quarterly charge applied to your utility bill to have the water meter read manually. For more information about the metering requirements for GVW customers, please refer to the current Greater Vernon Water Metering Bylaw, and for the current rates, please refer to the Greater Vernon Water Rates Imposition Bylaw on the RDNO website at <http://www.rdno.ca> under the Bylaws link.

19. How big is the ERT and how is it attached to my home?

ERTs are small grey boxes which are 4.5" x 5¼" (11.5 x 13 cm). They are attached to the home using three 1.5" (4 cm) screws and are positioned on the outside of the building in the same location as the existing water meter touchpad. Some types of siding or insufficient/incompatible touchpad wiring may prevent the attachment of an ERT to the building. In those cases the ERT may be installed inside the building near the water meter and above the foundation.



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20. I am re-siding my home, how do I ensure the ERT is working correctly?

Customers who already have an ERT installed and will be re-siding their home should call their respective municipality to ensure the ERT is working correctly after the job is complete.

21. How is the ERT powered?

Each ERT has a battery with a 20 year life expectancy.