

# METERING OPERATIONS

## TEST LAB SUMMARY

March 2021

Meter Seal Verification	<ul style="list-style-type: none"> <li>We tested the meters using the American Nation Standard Institute (ANSI) testing standards. It confirms that our meters contain the Measurement Canada certification seal.</li> </ul>
Radiofrequency (RF) Emissions	<ul style="list-style-type: none"> <li>Testing our meters against Health Canada's Safety Code 6 for Limits of Human Exposure to RF Electromagnetic Energy, this ensures that our meters remain safe for operation both physically and over-the-air. Our meters not only meet Safety Code 6 but also exceed the standard by emitting as little as 15 times less than the acceptable limit.</li> </ul>
Performance Under Harsh Conditions	<ul style="list-style-type: none"> <li>Power tests are performed for meter performance in harsh environmental conditions. This is done both in laboratory and real-world settings. We have 9 environmental testing scenarios that were successfully completed by MET Labs. This includes:               <ul style="list-style-type: none"> <li>hot and cold temperatures</li> <li>heavy rain and storm conditions</li> <li>dry and dusty situations</li> </ul> </li> <li>We also deploy meters between 9 to 12 months in real-world testing sites around Saskatchewan. We make sure we test during Saskatchewan's winter season. Meters are tested under conditions that we face every day, including a winter freeze and spring thaw.</li> <li>Our meters are also tested against extreme operating conditions. We do this to make sure that even in the worst of scenarios – our meters continue to perform safely.</li> <li>We've also deployed our own Physical Stress Testing Program for smart meters. This is tested at our Technical Services and Research Facility. Our meters have successfully passed everything we've exposed them to.</li> </ul>
Confidence Testing for Field Conditions	<ul style="list-style-type: none"> <li>We have 4 tests specifically directed at how our meter handles overheating conditions. While nearly 20 of our tests check the internal temperature of our meter, we also specifically test for heating conditions. The meter is designed to withstand it or stop it, not prevent it. That's why we expose our meter to many situations including simulated failed services including:               <ul style="list-style-type: none"> <li>intense environmental heating</li> <li>extended overcurrent conditions</li> </ul> </li> </ul>