



Innovation, Science and
Economic Development Canada

Innovation, Sciences et
Développement économique Canada

Canada

Trading thermal energy with meters

Legal requirements of the Weights and Measures Act

Trade

- From the Weights and Measures Act, Trade:

“means the selling, purchasing, exchanging, consigning, leasing or providing of any commodity, right, facility or service on the basis of measure and includes the business of providing facilities for measuring”
- Heat sold on the basis of measurement falls under the act

More on trade

- “Trade” in this context:
 - Any time money changes hands using a measurement as a basis for the transaction
- Usually happens when DE system owner sells to others
- Less likely in institutional DE systems where the system is part of the institution

The Weights and Measures Act

- Governs trade measurement devices and commodities
 - Deli scales and gas pumps are most visible devices
 - Includes accuracy requirements (tolerances)
- Applies to all trade sectors unless exempted
 - Exemptions are explicit in the Weights and Measures Regulations
 - Thermal energy is not exempt

Measurement Canada (MC)

- Part of ISED (Innovation, Science and Economic Development Canada)
- Government agency responsible for enforcing the Weights and Measures Act
 - And for ensuring the accuracy in all trade measurement
 - This includes the sale of heat energy in district energy systems
- I am responsible for the thermal energy portfolio
 - Feel free to contact me (Paige Vinten, see last slide for contact info)

What are the requirements?

- All trade measurement devices (including meters) must:
 - Be of an approved design (approved by MC)
 - Responsibility of manufacturer/distributor to have approve
 - Responsibility of end user to use approved devices
 - Be inspected (by MC) before they are used in trade
 - Eventually there will also be authorized service providers too
 - Responsibility of end users
- Technical requirements for meters are in our Terms and conditions for the approval of thermal energy meters
 - Based on EN 1434 / CSA C900

Enforcement

- Many options, gentle approach (education)
 - MC wants compliance
- Thermal energy a new area for MC
 - Slowly beginning to enforce things (once COVID is over...)
 - Only enforcing hot water systems (with or without glycol)
 - Not enforcing steam at this time
- Some grandfathering clauses active until 2026
 - See Bulletin V-31 (link on last slide)

What if I can't get an approved meter?

- A few small meters almost done, no large meters
- To get approvals, contact the manufacturer/distributor
- Meters that meet certain criteria can be exempt from inspection and approval (details in Bulletin V-31)
 - Requires written contract acknowledging that meters isn't approved and containing performance requirements
 - **Contract must not exceed 3 years**
 - For exemptions, contact me

And if I have more questions?

- Contact me!
- Visit our website (link on last slide)
- Read our documents

Links

MC Website

<http://www.ic.gc.ca/eic/site/mc-mc.nsf/Intro>

Weights and Measures Act

<https://laws-lois.justice.gc.ca/eng/acts/w-6/index.html>

Weights and Measures Regulations

<https://laws-lois.justice.gc.ca/eng/regulations/C.R.C., c. 1605/index.html>

Terms and conditions for the approval of thermal energy meters

<http://www.ic.gc.ca/eic/site/mc-mc.nsf/eng/lm04902.html>

Bulletin T-1—Approval of thermal energy meters

<http://www.ic.gc.ca/eic/site/mc-mc.nsf/eng/lm04933.html>

Bulletin V-31—Implementation of thermal energy meter requirements

<http://www.ic.gc.ca/eic/site/mc-mc.nsf/eng/lm04915.html>

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Questions?

