

Utilities (Technical Regulation) (Gas Metering Code) Approval 2021

Disallowable instrument DI2021–220

made under the

Utilities (Technical Regulation) Act 2014, s 14 (Technical codes—approval)

1 Name of instrument

This instrument is the *Utilities (Technical Regulation) (Gas Metering Code) Approval 2021*.

2 Commencement

This instrument commences on the day after its notification day.

3 Approval

I approve the Gas Metering Code 2021 (the *Code*) as set out in schedule 1.

4 Public Access

Electronic copies of the Code are available on the Access Canberra website at <https://www.accesscanberra.act.gov.au/s/article/utilities-technical-regulation-tab-related-resources>. No fee applies to access the Code on the Access Canberra website.

The Code is available for inspection upon request by the public between 8:30am and 4:30pm, from Monday to Friday except for public holidays, at the Access Canberra Land, Planning and Building Services Shopfront at 8 Darling Street, Mitchell. Please contact the Shopfront on the details below for more information:

Phone 6207 1923

Email: acepdcustomerservices@act.gov.au

5 Revocation

This instrument revokes the Gas General Metering Code (December 2000).

Shane Rattenbury MLA
Minister for Water, Energy and Emissions Reduction
28 August 2021

Australian Capital Territory



GAS METERING CODE

A technical code made under section 14 of the
Utilities (Technical Regulation) Act 2014

July 2021

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1. INTRODUCTION

1.1 Technical codes

- 1) The Gas Metering Code (the Code) is a technical code made under Part 3 of the *Utilities (Technical Regulation) Act 2014* (the Act).
- 2) Under section 14 of the Act, the Minister has approved the code as recommended by the Technical Regulator.

1.2 Compliance with this Code

- 1) If this Code applies to a utility and the utility fails to comply with this Code, the offence provisions under section 16 of the Act may apply.

2. APPLICATION AND PURPOSE OF THIS CODE

2.1 Application

- (1) This Code applies to a utility licensed to distribute gas through a gas distribution network within the Australian Capital Territory (ACT).

2.2 Purpose

- (1) The purpose of this Code is to set out the requirements for ensuring that gas delivered to customers through a gas distribution network is measured accurately.

3. DICTIONARY

- (1) The dictionary at the end of this Code is part of this Code.

4. LEGISLATIVE FRAMEWORK

4.1 Related laws and regulations

- (1) This code operates pursuant to or alongside the following legislation:
 - a) *Utilities (Technical Regulation) Act 2014*
 - b) *Utilities Act 2000*
 - c) *Gas Safety Act 2000*
 - d) Gas Safety Regulation 2001
 - e) National Gas Law (adopted into territory law under National Gas (ACT) Act 2008)
 - f) National Energy Retail Law (adopted into territory law under National Energy Retail Law (ACT) Act 2012)
 - g) Retail Market Procedures (NSW and ACT)
 - h) *National Measurement Act 1960 (Cth)*
 - i) National Trade Measurement Regulations 2009
 - j) National Measurement Guidelines 2016

4.2 Related technical codes

- (1) This Code operates alongside the following technical codes:
 - a) Gas Network Boundary Code
 - b) Gas Service & Installation Code

- c) Gas Safety and Network Operation
- d) Emergency Management Planning Code

4.3 Applicable Standards

- (1) A utility must where relevant, conform at a minimum with the following Standards under this Code:
 - a) AS/NZS 4645 Gas Distribution Networks – Network management.
 - b) AS/NZS 4647 Diaphragm Gas Meters.
 - c) AS/NZS 4944 Gas meters – In service compliance testing
- (2) Where this Code requires a standard to a higher level than required by a Standard, the utility is required to meet this Code.

5. OBLIGATIONS TO ENSURE ACCURATE METERING

5.1 Primary obligations

- (1) A utility must supply metering equipment to customers.
- (2) A utility must ensure that meters used to measure gas delivered to customers:
 - (a) are accurate as defined in Section 6.3;
 - (b) have been tested in accordance with Section 8.1; and
 - (c) conform, at a minimum, to the following Standards:
 - i. AS/NZS 4645 Gas Distribution Networks – Network management.
 - ii. AS/NZS 4647 Diaphragm Gas Meters.
 - iii. AS/NZS 4944 Gas meters – In service compliance testing.
- (3) A utility may apply to the Technical Regulator to use an alternative technical standard, including international standards, to the Standards in 5.1(2) where:
 - (a) it can be demonstrated that the utility can deliver the same or superior outcome and do not reduce safety or operational performance; or
 - (b) there are meter types that are not covered by the Standards in 5.1(2).
- (4) The Technical Regulator will only approve the use of an alternative technical standard where they are satisfied in relation to 5.1(3)a or 5.1(3)b.

6. METER REQUIREMENTS

6.1 Gas must be metered

- (1) A utility must not deliver gas to a customer through its gas distribution network unless a meter is installed as part of a meter assembly that will enable measurement that is accurate.
- (2) A utility must use reasonable endeavours to ensure that the meter and meter assemblies are not tampered with and that meters are not recalibrated to render a meter inaccurate.

6.2 New gas meter models and types

- (1) A utility must not adopt new types or models of meters unless the meter model or type:
 - (a) is fit for the purpose of use and conforms with the relevant technical standard, and
 - (b) meets measurement accuracy requirements of this Code.
- (2) A utility must keep records of tests conducted on new models or types of meters, from date

of approval for use and until it reaches the end of the service life of the meter model.

- (3) A utility must, when requested, submit to the Technical Regulator a copy of test results under section 6.2(2).

6.3 Meter accuracy

- (1) Meters used to measure gas delivered to customers must be accurate, where accurate means:
 - (a) The quantity of gas measured by a meter is within the limit of error for meters prescribed under the *National Measurement Act 1960* of the Commonwealth; or
 - (b) if no such limit is prescribed the meter must not over register the quantity of gas by more than 2 per cent or under register the quantity of gas by more than 3 per cent;
 - (c) the accuracy of a meter must be maintained at 20 per cent and 100 per cent of badge capacity.
- (2) Pressure regulators installed upstream of a meter as part of a fixed-factor meter assembly must not experience a reduction in outlet pressure of more than 0.5 per cent of the absolute pressure at the maximum flow rate for the meter.
- (3) Meters that are not accurate as defined in 6.3(1) are defective for the purposes of this Code.

6.4 Additional purposes for meters

- (1) A utility may use meters for additional purposes providing it does not contravene any requirements of this Code.
- (2) Where a meter is used for additional purposes in accordance with section 6.4(1) a utility is responsible to ensure that the meters continue to measure gas accurately pursuant to section 6.3(1).

7. METER ACCURACY MANAGEMENT

7.1 Testing meters prior to installation

- (1) Gas meters must be tested in accordance with Part 8, prior to installation.

7.2 Meter life

- (1) A utility must, for each classification (type, model, year of manufacture and any other relevant differentiator between groups of meters) of gas meter, define an initial meter life for that classification.
- (2) When the initial meter life for a gas meter has expired, a utility must replace the gas meter unless the utility has been able to demonstrate through an approved meter life extension program that a classification of meter will maintain its accuracy beyond its initial meter life in accordance with section 7.7.

7.3 Meter accuracy plan

- (1) A utility must have a plan for determining if each classification of gas meter installed at customers' premises on its gas distribution network continue to be accurate.
- (2) Each year the utility must submit for approval its meter accuracy plan to the Technical Regulator by 31 July.

- (3) If the Technical Regulator determines that the meter accuracy plan will not provide sufficient assurance about the continuing accuracy of each classification of gas meter installed at customers' premises, it may require the utility to revise its meter accuracy plan, and the utility must amend its meter accuracy plan.
- (4) A utility must implement its meter accuracy plan.

7.4 Testing of meters – customer requests

- (1) A utility must:
 - (a) In accordance with Part 8, undertake a test of a gas meter installed at the customer's premises at a customer's request, to determine if the meter is not defective;
 - (b) advise the customer, prior to performing a test, any reasonable costs and charges in relation to the tests that will be charged in the event that the meter is shown not to be defective.
- (2) If a meter is found to be defective, no costs are to be borne by the customer.
- (3) If the meter is not defective, the utility may recover from the customer previously advised reasonable costs.
- (4) A utility must provide a copy of test certificates (including analysis and results) to the Customer and to the Technical Regulator upon request.

7.5 Repair and replacement of meters

- (1) A utility must:
 - (a) repair or replace any defective or damaged meters installed at a customer's premises as soon as reasonably practicable after the utility becomes aware that the meter is defective or damaged; and
 - (b) capture and maintain sufficient information to:
 - i. identify and locate all gas meters that have been repaired; and
 - ii. identify meters that have been replaced.

7.6 Defective meters

- (1) Where a utility identifies that a component of meter assemblies has faults that cause the metering equipment to not measure and record the consumption of gas to meet the accuracy standards in 6.3 the component must be either removed from the network or rectified, so that the fault does not reoccur.
- (2) Where a classification of component of meter assemblies requires replacement due to faults identified in respect of section 7.6(1) a utility must submit to the Technical Regulator, within 30 days of identifying the faults, a plan to rectify the faults prior to removal of the affected component from the network. The plan must include:
 - (a) the classification affected component including type, make and model
 - (b) numbers of components known or estimated to be affected by the fault
 - (c) an explanation of how the fault was identified and numbers of components affected,
 - (d) the impact on customers as result of the faulty components,
 - (e) actions to be taken to address any impact on customers as a result of the faulty components,
 - (f) actions planned to be undertaken to rectify the fault with the components and the timeframe to complete the rectification.
- (3) The utility must report to the Technical Regulator on the results of implementing its plan within three months of its completion.

- (4) Components removed from the network pursuant to section 7.6(1) must not be reinstalled on the network without the approval of the Technical Regulator. To obtain approval of the Technical Regulator, the utility must demonstrate to the satisfaction of the Technical Regulator that the fault in the components has been rectified.

7.7 Meter life extension

- (1) Where a utility anticipates a benefit from retaining gas meters of a particular meter classification in service after the initial meter life has expired (the affected gas meters), the utility must develop a meter life extension plan.
- (2) The meter life extension plan must:
 - (a) conform with the relevant technical standards for meter testing for the affected gas meters; and
 - (b) include sufficient information (including results and analysis) about all tests conducted to demonstrate that the affected gas meters will remain accurate after implementation of the meter life extension plan.
- (3) A utility must submit to the Technical Regulator for approval a meter life extension plan for each classification of affected gas meter for which a meter life extension is being sought.
- (4) The Technical Regulator must assess whether the utility has demonstrated that the affected gas meters will remain accurate after the implementation of the meter life extension plan.
- (5) The Technical Regulator may:
 - (a) approve the utility's meter life extension plan; or
 - (b) require amendment to the plan, where the utility has not provided sufficient evidence, that the affected gas meters will remain accurate after the implementation of the meter life extension plan; or
 - (c) not approve the meter life extension plan, where the utility has provided manifestly inadequate evidence, that the affected gas meters will remain accurate after the implementation of the meter life extension plan.
- (6) The utility may implement an approved meter life extension plan.

8. TESTING OF METERS

8.1 Authorisation to test

- (1) Testing of gas meters must only be undertaken by a person or organisation who is appointed as a Utility Meter Verifier under the National Measurement Act 1960 (*Cth*) or by a person or organisation that has been approved to test meters by the Technical Regulator using gas meter testing equipment that has a current calibration certificate.
- (2) Gas Meter testing must be performed according to test procedures meeting the requirements of Section 8.3.
- (3) Persons performing tests of gas meters pursuant to Sections 7.1, 7.4, 7.5 must complete a test report certifying that the meter is accurate or otherwise.
- (4) A calibration certificate for meter testing equipment is current for 12 months from the date the calibration has been performed.

8.2 Meter testing equipment

- (1) A calibration certificate provided pursuant to 8.1(1) may only be provided by a person or organisation using meter calibration equipment holding NATA accreditation.

- (2) Meter testing equipment must be calibrated annually in accordance with the relevant technical standards and, if relevant, a pattern approved pursuant to the *National Measurement Act 1960* and *National Measurement Regulations 1999*.
- (3) Persons calibrating of meter testing equipment must complete a calibration report and certificate.

8.3 Meter testing procedures and reports

- (1) A utility must make available upon request by the Technical Regulator meter testing procedures.
- (2) Meter testing procedures must:
 - (a) be in accordance with relevant technical standards for each meter type, and
 - (b) ensure that meters meet the accuracy requirements of Section 6.3.
- (3) A utility must upon request, provide the Technical Regulator with results (including analysis) of any tests conducted.

9. METER RECORDS

9.1 Records

- (1) A utility must:
 - (a) establish, hold and maintain gas metering equipment records in respect of metering installations as part of its Gas Safety and Operating Plan.
 - (b) provide a copy or extract of the gas metering equipment records to the Technical Regulator upon request from the Technical Regulator.
- (2) A utility's records should contain such metering equipment information as necessary to manage the meter assemblies in accordance with the Gas Safety and Operating Plan and this Code, including:
 - (a) Metering Installation Reference Number (MIRN).
 - (b) details of installed metering equipment, including; location, make, model, date of manufacture, serial number and date of installation.
 - (c) meter calibration and testing records.
 - (d) performance data of (e.g. accuracy, failure etc.).
 - (e) aged *replacement*, maintenance and testing details of meters and correctors.

9.2 Reporting of gas meters and installations

- (1) A utility must submit an annual report each year by 30 September for the 12 months ending 30 June preceding.
- (2) The annual report must provide all of the information and in a format necessary to enable the Technical Regulator to perform its functions under Section 78 of the Act.

DICTIONARY

- (1) “Act” means *the Utilities (Technical Regulations) Act 2014*.
- (2) “ancillary equipment” means equipment located separately to or together with the meter assembly that is used to correct flow to standard conditions, communicate meter readings remotely and/or allocate gas measured to customers and includes:
 - Electrical connections and wiring to convey signals from the meter assembly
 - Flow correction devices to enable uncorrected meter data to be adjusted for the effects of temperature and pressure
 - Hot water meters
 - Telecommunications equipment used to transmit meter data
 - Power supplies and related electronics required to operate other ancillary equipment.
- (3) “Approve” where the words “approve”, approval or “approved” are used in this Code it means the Technical Regulator is satisfied based on evidence provided by the utility that a submission meets the compliance requirements of the Code. Approval does not imply that the Technical Regulator is approving the details of a submission as being fit for purpose. Responsibility to ensure fitness for purpose always remains with the utility.
- (4) “Australian Standard (AS)” or “Australian Standard/New Zealand Standard (AS/NZS)” means a standard published by Standards Australia as in force from time to time.
- (5) “Boundary” means the boundary between a gas distribution network and a customer’s premises as defined in the Gas Network Boundary Code (i.e. the boundary is at the outlet of the utility’s billing meter assembly).
- (6) “customer” means:
 - (a) a person whom the service is provided under a customer contract; or
 - (b) a person who has applied, orally or in writing, to the relevant utility for the service to be provided under a customer contract;
- (7) “customer contract” means a customer connection contract, made under the *National Energy Retail Law*.
- (8) “gas” has the same meaning as section 8 of the *Utilities Act 2000*.
- (9) “gas distribution network” has the same meaning as section 10(2) of the *Utilities Act 2000*.
- (10) “gas network” has the same meaning as section 10 of the *Utilities Act 2000*.
- (11) “Gas Service and Installation Rules” means the Gas Service and Installation Rules adopted by a utility under the Gas Service and Installation Code.
- (12) “hot water meter” means a device that measures and records quantity of hot water consumed by a customer by reference to the volume of water.
- (13) “industry code” means a code approved or determined by the Independent Competition and Regulatory Commission under part 4 of the *Utilities Act 2000*.
- (14) “licence” means a licence granted to a utility under the *Utilities Act 2000*.
- (15) “meter” or “gas meter” means a device that measures and records quantities of gas by reference to volume, mass or energy content, as defined in the National Gas Rules and includes both master and sub meters.
- (16) “metering assembly” means a meter and its associated metering equipment.

- (17) “meter assembly protective equipment” means equipment installed to protect the meter assembly from damage from vehicles, persons and equipment, which may be owned by a customer or utility, and includes but is not limited to:
- Bollards
 - Meter protection bars
 - Meter cages.
- (18) “metering” means measuring and recording the quantity of gas by reference to volume, mass or energy content as defined in the National Gas Rules.
- (19) “metering equipment” means the associated equipment attached to the meter to filter, control or regulate the flow of gas and includes but is not limited to:
- Valves
 - Pipework
 - Fittings
 - Filters
 - Pressure regulators
 - Over-pressure protection devices
 - Non-return valves
 - Mechanical indices
 - Meter bar/support equipment
 - Boundary regulator sets
 - Meter assembly protective equipment.
- (20) “metering installation” means a meter assembly, its associated meter assembly protective equipment and associated ancillary equipment.
- (21) “metering information” means measurements and recordings taken by metering equipment.
- (22) “meter testing procedures” are procedures to test the accuracy of meters approved by the Technical Regulator.
- (23) “Minister” means the Minister responsible for administering the Act.
- (24) “National Gas Law” is the law set out in the *National Gas (South Australia) Act 2008* and applies as the *National Electricity (ACT) Law* in the *National Gas (ACT) Act 2008*.
- (25) “National Gas Rules” are the rules, in force from time to time, published by the Australian Energy Market Commission in accordance with the National Gas Law.
- (26) “network” or “gas network” has the same meaning as in the *Utilities Act 2000*.
- (27) “person” includes a natural person, a firm, an unincorporated association or a body corporate.
- (28) “plan(s)” means management plans and/or documentation including: policies, plans, procedures, engineering and/or technical specifications, operating plans (i.e. field guidelines); created, received and/or relied upon by a utility, it’s; personnel, agents and/or sub-contractors, in accordance with a legal obligation or in the course of conducting business; and includes current, superseded and sensitive plans, documentation and information in written, electronic or any other form.
- (29) “point of supply” has the same meaning as in the Gas Network Boundary Code (i.e. “point of supply” means the outlet of the meter assembly);
- (30) “premises” has the same meaning as in the *Utilities Act 2000*.
- (31) “record” means data, documentation and information created, received, used and/or kept, as information and/or evidence by a utility in accordance with a legal obligation or in the course of conducting business; and includes data, documentation and information in written, electronic or any other form.

- (32) “records and reporting system” means a database for the purpose of the recording and storage of data, documentation and information in an common industry format such as Adobe pdf, Microsoft excel spread sheet, Microsoft Word or other similar format.
- (33) “regulator” has the same meaning as in the Gas Service and Installation Code.
- (34) “report/s” is an account presented in writing made with the specific intention of relaying information or recounting certain events in a widely presentable and includes information in written, electronic or any other agreed form.
- (35) “Retail Market Procedures (NSW and ACT)” means the Gas Market Procedures for NSW and the ACT published by the Australian Energy Market Operator pursuant to the National Gas Law and rules.
- (36) “Standards” or “technical standards” mean relevant industry standards (including a series of standards) applicable to Australia, these may be published by Standards Australia and/or other bodies, are current at the time, comply with technical codes, and are accepted by the Technical Regulator.
- (37) “technical code” or “code” means a code approved or determined by the Minister under part 3 of the Act.
- (38) “Technical Regulator” means the Technical Regulator under part 9.2 of the Act.
- (39) “Territory” means the Australian Capital Territory.
- (40) “utility” has the same meaning as in the *Utilities Act 2000*.
- (41) “Utility Meter Verifier” has the same meaning as in the *National Measurement Act 1960* (Cth).