#### ARRANGEMENT OF REGULATIONS

### Regulation

#### Service connection

- 1. Application for a service connection
- 2. Metering
- 3. Meter repositioning
- 4. Accuracy of meter
- 5. Resolving meter disputes
- 6. Replacement of defective meters
- 7. Meter replacement

#### Quality of supply of natural gas.

- 8. Composition of natural gas
- 9. Supply pressure and flow rate
- 10. System pressure complaints
- 11. Safety of supply
- 12. Reliability of natural gas supply

#### Natural gas interruptions

- 13. Interruption for planned maintenance
- 14. Notice of planned supply interruption
- 15. Emergency interruption of supply or disconnection
- 16. Curtailment programme

#### Restoration of supply after interruptions

- 17. Rectification of faults
- 18. Restoration of supply

### Common obligations

- 19. Appointments
- 20. Disputes
- 21. Payments
- 22. Exemptions
- 23. Effect of notification

- 24. Notice of rights
- 25. Performance reporting
- 26. Contraventions by bodies corporate
- 27. Interpretation

**SCHEDULES** 

In exercise of the powers conferred on the Energy Commission by section 27 of the Energy Commission Act 1997, Act 541 and acting in consultation with the Public Utilities Regulatory Commission these Regulations are made this 5th day of December, 2007.

#### Service connection

Application for a service connection

- 1. (1) A person may apply to a local distribution company for a service connection by completing and submitting an application form provided by the distribution company.
- (2) A distribution company shall provide the customer with an estimated cost of connection within
  - (a) five working days if the connection is to be made from an existing supply pipeline; or
  - (b) ten working days if the connection requires a service line extension.
- (3) Where the applicant pays the estimated cost of connection, the distribution company shall provide supply within
  - (a) thirty-five working days if the connection is to be made from an existing supply pipeline; or
  - (b) sixty working days if the connection requires a service line extension.

### Metering

- 2. (1) A distribution company, with the approval of the Commission shall
  - (a) provide, install and maintain a meter that will measure and record the amount of natural gas supplied to the customer within the specified accuracy limits of that meter's class;
  - (b) fix the meter to the customer's premises or some other place on the customer's premises designated by the customer, and position it in a way as to allow for easy access;
  - (c) ensure that the meter is robust and easy to read by the customer;
  - (d) ensure that the accuracy of the meter is maintained throughout its usage and in accordance with the applicable metering code in respect of regulations on occupational, health and safety;
  - (e) test and if necessary calibrate a customer's meter periodically;
  - (f) carry out meter replacement of its distribution system for any meter that has been in service for twenty years;
  - (g) seal a meter installed at the customer's premises in the presence of the customer or the customer's representative, who shall ensure that the seal is firmly in place;

- replace the meter or provide an appropriate alternative to restore natural gas supply to the customer where the meter becomes defective;
- (i) ensure that facilities for the purchase of units for prepayment meters are available at all its customer service centres for a minimum of at least ten hours each working day subject to the Labour Act, 2003 (Act 651); and
- (j) provide weekend facilities for the purchase of units for prepayment meters in at least one customer service centre in each operational district.
- (2) Despite subregulation (1)(g), a distribution company may break a seal on a meter during testing, maintenance or repair and shall upon completion, reseal the meter in the presence of the customer or the customer's representative.
- (3) The Commission shall in furtherance of subregulation (1)(e), determine the frequency of calibration depending on the type of meter used by the distribution company.

#### Meter repositioning

- 3. (1) A distribution company shall at the request of a customer for a new position of the customer's meter give the customer an estimated cost of executing the request within seven working days after the date of receipt of the request.
- (2) Subject to regulation 22, a distribution company that fails to comply with sub-regulation (1) is liable to pay the sum prescribed in the First Schedule, to the customer.

#### Accuracy of meter

- 4. (1) A distribution company shall install an electronic meter with not more than zero point two percent accuracy or a mechanical meter with not more than one percent accuracy on a customer's premises:
  - (2) When a distribution company is notified by a customer

(a) that the natural gas meter on the customer's premises is or may have been operating outside its permitted margins of error; or

(b) of the occurrence of an event or the existence of a circumstance which the distribution company should reasonably expect to result in where the customer's meter is operating beyond its margins of error, the distribution company shall ensure that an appropriate person visits the customer's

premises to investigate and where necessary, replace the meter in accordance with regulation 6.

(3) Subject to regulation 22, a distribution company is liable to pay to the customer the sum prescribed in the First Schedule if the distribution company fails to comply with subregulation (2).

Resolving meter disputes

- 5. (1) Where a customer alleges that a distribution company's meter is defective, the distribution company shall send the alleged defective meter for calibration by an independent person.
- (2) The distribution company shall be solely responsible for the payment of any cost incurred in sending the meter for an independent calibration and the prorated difference of the under-supplied gas from the date of the complaint to the date the meter is eventually connected, if the meter turns out to be indeed defective after the independent calibration.
- (3) The customer shall be solely responsible for the payment of any cost incurred in sending the meter for an independent calibration, if the meter is found not to be defective after the independent calibration.

Replacement of defective meters

6. Where a distribution company is required to replace a customer's clearly defective meter, the distribution company shall install the meter within forty-eight hours after the notification and not at the customer's expense.

Meter replacement

- 7. (1) A distribution company shall prepare and submit an audit report giving details of any meter aged twenty years and a programme for the replacement to the Commission.
- (2) The Commission shall inform the Public Utilities Regulatory Commission of any distribution company which does not comply with subregulation (1).
- (3) A distribution company that contravenes subregulation (1), shall pay the penalty that the Commission in consultation with the Public Utilities Regulatory Commission may determine.

### Quality of supply of natural gas

Composition of natural gas

8. A distribution company shall ensure that the composition of natural gas supplied to a customer is not contaminated and is of the quality specified in the Second Schedule.

Supply pressure and flow rate

9. (1) A distribution company shall ensure that the pressure at the point of supply to a customer's premises or installation is within the maximum and minimum supply pressure limits agreed on between the customer and the distribution company.

(2) The distribution company shall ensure that the daily volume of natural gas supplied to a customer's premises is as agreed between the customer and the distribution company.

#### System pressure complaints

10. (1) A customer shall make a complaint to its distribution company

(a) of any supply pressure fluctuation outside the agreed variation limit in furtherance of regulation 9(1); or

- (b) of the occurrence of an event within the distribution company's distribution network which in the customer's opinion might reasonably be a cause of a supply pressure fluctuation to the customer's premises, outside the agreed variation limits.
- (2) The distribution company shall from the date of receipt of the supply pressure complaint,
  - (a) visit the customer's premises to investigate and rectify the cause of the complaint; or
  - (b) send an explanation of the probable cause of the customer's complaint to the customer

within the period prescribed under regulation 17.

(3) Subject to regulation 22, a distribution company is liable to pay compensation to a customer, of the sum prescribed in the First Schedule if the distribution company contravenes subregulation (2).

### Safety of supply

11. (1) A distribution company shall comply with occupational, health and safety requirements contained in Regulations in respect of natural gas.

- (2) A distribution company that becomes aware either by being informed by the public or otherwise that its distribution system at a particular locality is faulty and may cose danger to the public from the time of becoming aware of the fault, shall visit the locality and isolate the faulty part of the distribution service network within
  - (a) two hours, where the location of the fault is within a thirty kilometer radius;
  - (b) four hours, where the location of the fault is within a sixty kilometer radius; or
  - (c) five hours, where the location of the fault is within a radius of sixty kilometers and above

from the district or regional office of the distribution company where the information was received.

- (3) The distribution company shall place danger notices to warn the public of the danger.
- (4) A distribution company shall provide education and training for its customer to enable that customer use natural gas in a manner that would not make the distribution company's distribution system unsafe.
- (5) Subject to regulation 22, a distribution company that contravenes this regulation is liable to pay the customer compensation of the sum prescribed in the First Schedule.

#### Reliability of natural gas supply

- 12. (1) A distribution company shall ensure that the average natural gas interruption duration for a customer served in respect of an operational period of one year does not exceed thirty hours.
- (2) A distribution company is liable to pay to the customer compensation of the sum prescribed in the First Schedule if the distribution company fails to comply with subregulation (1).
- (3) The distribution company shall prepare a quarterly report indicating compliance with regard to the performance indicators specified in the Third Schedule and shall submit the report to the Commission and the Public Utilities Regulatory Commission.
  - (4) Each year the distribution company shall
    - (a) keep and make available to the Commission on request, adequate records of natural gas supply interruptions to support its annual report of reliability performance levels achieved;
    - (b) provide the Commission with specific reports on its operations in accordance with the requests of the Commission;
    - (c) classify each customer's interruption in terms of primary causes of the interruption; and
    - (d) include in the annual report, a record of natural gas supply interruptions, and the levels of performance achieved with respect to the standards specified in the Third Schedule.
- (5) The distribution company is liable to pay the sum prescribed in the First Schedule to the Commission, if it fails to
  - (a) submit quarterly and annual reports of its operations within the stipulated periods to the Commission; or
  - (b) respond to requests of the Commission for specific reports on its operations within the stipulated period.

#### Natural gas interruptions

Interruption for planned maintenance

13. (1) A distribution company may disconnect or interrupt natural gas supply to a locality or a customer for the purpose of carrying out planned maintenance,

including repair and installation of new equipment.

(2) Except in a situation of emergency, a distribution company shall not exercise its power under subregulation (1) unless the distribution company informs the customer of the intended disconnection or interruption, and stipulates the approximate duration of the disconnection or interruption through

(a) public notice; or

(b) direct contact by telephone, electronic mail, or any other appropriate

information technology system.

(3) For the purpose of subregulation (2)(a), the public notice shall be given for a period of not less than three working days after which supply may be interrupted.

(4) Where the distribution company interrupts supply, the distribution com-

pany shall restore natural gas supply within the stipulated period.

Notice of planned supply interruption .

14. (1) Subject to regulation 22, where a distribution company interrupts supply to the customer's premises for the purpose of discharging that distribution company's obligations under the law

(a) without notifying the customer as required under regulation 13, or

(b) on a day other than the day specified in a notice of interruption; the distribution company is liable to pay compensation of the sum prescribed in the First Schedule to the customer.

(2) A customer shall lose the right to a claim under sub-regulation (1), if the customer does not make the claim on the distribution company for compensation within ninety days from the date of the unnotified interruption.

Emergency interruption of supply or disconnection

15. (1) A distribution company may disconnect or interrupt supply to a customer in an emergency situation without notice to the customer and immediately advise the customer.

(2) The distribution company shall take the appropriate measures to rectify the situation and immediately advise the customer.

Curtailment programme

16. (1) A distribution company shall prepare a gas curtailment programme to be implemented in the event of an emergency interruption or diminution of gas supply and submit it to the Commission and the Public Utilities Regulatory Commission.

(2) The programme shall take into consideration

(a) requirements for social needs such as hospitals and schools;

(b) the necessary requirements for industrial and commercial users to operate essential equipment to avoid damage to industrial plants;

(c) availability of alternate sources of fuel or energy to the customers;

and

(d) any customer who has contracted for interruptible service.

### Restoration of supply after interruptions

#### Rectification of faults

- 17. (1) A distribution company shall on notification of the occurrence of a distribution network fault, rectify the reported fault and restore natural gas supply to the affected customer
  - (a) within twenty-four hours where a minor fault occurred, or
  - (b) within one hundred and twenty hours where a major fault that would require capital intensive equipment replacement occurred.
- (2) The periods stated in this regulation do not apply to faults associated with natural disasters.
- (3) Where a customer's natural gas supply is disconnected in accordance with Rules or Regulations in respect of the technical and operational aspect of the distribution and sale of natural gas, the distribution company shall restore the natural gas supply within forty-eight hours after the customer has complied with the Rules or Regulations.

Restoration of supply

- 18. (1) Where a report of a failure of fault in or damage to a distribution company's distribution system is made to the distribution company
  - (a) by a customer, resulting in an interruption of supply to the customer's premises;

(b) by a person other than the customer; or

(c) through an alert mechanism of the operation of an automatic system situated in the distribution company's distribution system,

the distribution company is liable to pay the sum prescribed in the First Schedule to the customer if supply of the natural gas to the customer's premises is interrupted and supply is not restored to the customer's premises within the period prescribed under regulation 17.

(2) Without limiting subregulation (1), the distribution company shall pay the equivalent sum paid under subregulation (1) for each succeeding twelve hour period following non-compliance with subregulation (1).

(3) Subregulation (1) does not apply where

(a) the circumstances stated in regulation 22 exist;

(b) the distribution company could not be reasonably aware of the failure to restore the supply;

(c) supply to the premises or area is through a gas pipeline situated on

or under a river or sea bed;

(d) the premises to which the supply was interrupted is situated on an island and an alternative means was not normally available to the distributor to supply the premises on that island; or

(e) the distribution company has not received a claim for compensation from the customer in respect of the conditions stipulated in sub-regulation (1) within ninety days after the date of restoration of the supply to the customer's premises.

### Common obligations

Appointments

19. (1) A distribution company shall notify a customer of the distribution company's intention to visit the customer's premises to undertake the distribution company's obligation under the Rules or Regulations in respect of the technical and operational aspect of the distribution and sale of natural gas.

(2) A customer may request a distribution company to visit the customer's premises to undertake obligations imposed on the distribution company under these

Regulations.

(3) A distribution company that

(a) fails to keep an appointment made with a customer to visit the customer's premises pursuant to sub-regulation (1); or

(b) fails to make an appointed visit to a customer after granting a request to visit a customer's premises under subregulation (2),

is liable to pay to the customer the sum prescribed in the First Schedule.

- (4) The Public Utilities Regulatory Commission shall determine the quantum of darnage incurred by a customer if the distribution company and the customer are unable to reach an agreement on the quantum of damage incurred by the customer as a result of the distribution company's failure to visit.
  - (5) Subregulation (3) does not apply where

(a) the visit is for the purpose of terminating the customer's supply, or

(b) the visit is in response to information received under regulations 4(2), 10(1) or 18(1).

#### Disputes

- 20. (1) A distribution company or customer may refer a matter of dispute between the distribution company and the distribution company's customer, to the Public Utilities Regulatory Commission.
- (2) Where a dispute is referred to the Public Utilities Regulatory Commission for determination, the customer and the distribution company shall furnish the Public Utilities Regulatory Commission or a person appointed by the Public Utilities Regulatory Commission, with any relevant evidence required to enable the proper determination of the dispute.
- (3) Where the determination of a dispute results in an order requiring the distribution company to make a payment to the customer and the distribution company fails to make that payment, the customer may set-off the amount ordered to be paid against any amount owed by the customer to the distribution company.
- (4) A determination made with respect to a dispute brought before the Public Utilities Regulatory Commission may include a provision requiring the payment of costs or expenses incurred by the Public Utilities Regulatory Commission and the successful party, to be borne by the unsuccessful party.

#### **Payments**

- 21. (1) A distribution company that is required to make payment to a customer under these Regulations is liable to pay the sum prescribed in the First Schedule in addition to the original sum accrued, where the distribution company fails to notify the customer that payment is due and make payment to the customer of the sum required.
- (2) Subregulation (1) does not apply where a dispute exists between the distribution company and the customer.
- (3) Where a distribution company is required to make a payment under these Regulations to a customer, the distribution company may make payment to the customer within thirty days.

#### Exemptions

- 22. A distribution company is exempted from paying a customer, the sums prescribed in the First Schedule, if the failure to comply with these Regulations is as a result of
  - (a) severe weather conditions;
  - (b) inability to obtain access to the customer's premises;
  - (c) industrial action by the employees of the distribution company;
  - (d) frivolous or vexatious information or a complaint;

(e) circumstances that are likely to result in the breach of an enactment if the distribution company took the action;

(f) the dispatch of information by the customer to the wrong address of the distribution company or the use by the customer of a telephone number outside the distribution company's advised working hours, where information is required to be provided by the customer to the distribution company; or

(g) some other circumstance of exceptional nature which in the opinion of the Commission is reasonably beyond the control of the distribution company.

#### Effect of notification

- 23. (1) A distribution company shall provide an emergency contact facility to its customers.
- (2) Where a request, complaint or a notification of the occurrence of an event is made outside a distribution company's working hours by a customer to the distribution company under regulations 3, 4(2), 6 or 11(2), the request, complaint or notification shall take effect from the next hour.

#### Notice of rights

- 24. (1) A distribution company shall prepare and periodically revise a customer charter summarising the rights and responsibilities of customers as well as the level of service customers are to expect in a form and content that can reasonably be understood by customers.
  - (2) The distribution company shall
    - (a) lodge a copy of the customer charter, and any revision made to the charter with the Commission and the Public Utilities Regulatory Commission, prior to its release to customers;
    - (b) despatch to each customer, a copy of the statement once in every twelve months; and
    - (c) display a copy of the statement in its current form conspicuously at its premises.
- (3) The distribution company shall prepare a statement for residential, commercial and industrial customers respectively.

#### Performance reporting

- 25. (1) A distribution company shall
  - (a) prepare a statement indicating its compliance with the Rules in respect of the technical and operational aspect of the distribution

and sale of natural gas, the levels of performance achieved with regard to the Rules, in a form and content that can reasonably be understood by customers; and

(b) periodically revise the statement.

(2) The distribution company shall

(a) lodge a copy of the statement, and any revision made to the statement with the Commission and the Public Utilities Regulatory Commission, before releasing it to any customer;

(b) despatch to each customer, a copy of the statement once in every twelve months; and

- (c) display a copy of the statement in its current form conspicuously at its premises.
- (3) The distribution company is liable to pay a fine of two hundred and fifty penalty units to the Commission if it fails to comply with sub-regulations (1) and (2).

Contraventions by bodies corporate

- 26. Where a provision of these Regulations is contravened by a distribution company established as a body corporate, a partnership or other firm, every director or officer of that body corporate or any member of the partnership or firm or other person concerned with the management of the distribution company shall be considered to have contravened the provision and is liable to pay compensation for any damage resulting from the contravention, unless the person proves to the satisfaction of the court that
  - (a) due diligence was exercised to secure compliance with the provisions of these Regulations; and
  - (b) the contravention occurred without the person's knowledge, consent or connivance.

Interpretation

27. In these Regulations unless the context otherwise requires,

"Act" means the Energy Commission Act, 1997 (Act 541);

"connection fee" means the estimated cost of connecting an applicant from a main pipeline to that applicant's premises;

"customer" includes a person that purchases or receives natural gas for consumption and not for delivery or resale to any other person and a person that owns or occupies premises where natural gas is supplied;

"customer meter" means the meter provided by a distribution company to measure the transfer of natural gas from the distribution

company to a customer;

"customer service centre" means a facility provided by the distribution company for the collection of bills, sale of prepaid meter cards and receipt of complaints from customers;

"distribution company" means a person licensed under the Act as a public utility to distribute and carry out a retail sale of natural gas to a customer in an area or zone designated by the Commission;

"distribution system" means a system consisting of distribution mains, service lines, compressors, meters, and other ancillary equipment interconnected for the supply of natural gas;

"emergency" means an imminent occurrence of a situation that is out of the ordinary and that threatens to endanger a person, public safety or cause damage to property;

"maximum supply pressure" means the maximum pressure at which natural gas is supplied to a customer;

"meter" means natural gas meter;

"minimum supply pressure" means the minimum pressure at which natural gas is supplied to a customer;

"minor fault" means a fault affecting a service line to one customer;

"major fault" means a fault affecting the distribution system;

"natural gas" means any hydrocarbon or a mixture of hydrocarbon and other gases which at a temperature of sixty degrees Farenheit and at atmospheric pressure are predominantly in a gaseous state;

"Public Utilities Regulatory Commission" means the Public Utilities Regulatory Commission established under section 1 of the Public Utilities Regulatory Commission 1997 (Act 538); and

"service line" means a pipeline distribution network for natural gas that ends at the outlet of the customer's meter.

# FIRST SCHEDULE Prescribed Compensation

Regulation	Residential Customer	Commercial Customer	Industrial Customer	Energy Commission
	GH¢	GH¢	GH¢	GH¢
3 (2)	240.00	360.00	600.00	
4(3)	480.00	720.00	1,200.00	1.1.3.
10(3)	240.00	360.00	600.00	
11(5)	240.00	360.00	600.00	
12(2)	240.00	360.00	600.00	
12(5)	<del></del>			3,000.00
14(1)	360.00	480.00	600.00	6
18(1)	240.00	360.00	600.00	y F.
19(3)	240.00	360.00	600.00	for the
21 (1)	240.00	360.00	600.00	
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# SECOND SCHEDULE GAS SPECIFICATIONS

(Regulation 8)

### PART A—COMPOSITION (BY VOL. %)

Composition (by Vol %)		Maximum	Manimum
Methane		95	85
Ethane		10	0
Propane		8	0
Butane + Paraffine (C4+)		5	0
CO <sub>2</sub>		8	٨
N <sub>2</sub>	9	6	
Total Inert (CO <sub>2</sub> +N <sub>2</sub> )	**	12	
O <sub>2</sub> (by volume)		10 ppm	
Water Content		7 lbs/MMscf	
H <sub>2</sub> S (by volume)		4 ppm	
Total sulfur		28 ppm	0 ppm

# PART B—HEATING VALUE (BTU/SCF) AND DELIVERY TEMPERATURE

	Maximum	Minimum
Higher Lower Wobbe Index (Gross)	1150 1050 52	950 865 47
Delivery Temperatures	49 C (120°F)	5° C(41°F)

### PART C-SOLIDS CONTAINED IN RAW NATURAL GAS

Sand, dust, gum, other solids

Free by normal commercial standards of objectionable odor, dust, solid or liquid matter, wax, gum and gum forming constituents, or aromatic hydrocarbon which might cause injury to or interfere with the proper operation of all equipment through which it flows.

### FLUID CHARACTERISTICS

### Design raw gas consumption (dry basis)

### PART D

Gaz components	Mol%	
Methane	88.75	
Ethane	5.93	×
Propane	1.28	
i-Bu ane	0.26	
n-Butane	0.26	1.
i-Pentane	0.09	u I
n-Pentane	0.06	
Hexanes	0.06	
Heptine+	0.10	
CO,	2.55	
$N_3$	0.66	*
O, 1	0.00	
H <sub>2</sub> S	0.00	

# THIRD SCHEDULE (Regulation 12(3))

#### Performance Indicators

#### Performance indicators to be submitted quarterly

Item	Description	Allowable *	Actual
Reliability-1	Number of leaks reported		
	Number of over-pressurization	* **	
3	Number of low supply pressure		
4	Number of planned outages		
5	Number of unplanned outages	×	
6	Number of customers affected		
	by the outages		
7	Total customer-hours of outages		

<sup>\*</sup> To be determined during commercial operations based on the length of the pipeline.

PROF. F.K.A. ALLOTEY Chairperson, Energy Commission

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