

Rule 028

Natural Gas Settlement System Code Rules

This rule as amended was approved by the Alberta Utilities Commission on XX, 20XX, and is effective on XX, 20XX.

Version 1.8

This document can be referred to as version 1.8 of Rule 028: *Natural Gas Settlement System Code Rules*. Rule 028 is an operational document that defines the business processes and mechanics of how natural gas settlement is to be carried out at the retail natural gas market level in Alberta. Consequently, a consultative process is used to identify improvements and revisions that are to be made to Rule 028 to keep the rule relevant and reflective of the requirements of the retail natural gas market.

A working group made up of industry representatives meets regularly to identify changes that are required to be made to Rule 028 and to assign priority rankings to the changes. Subgroups are formed to address the high-priority changes and to make recommendations to AUC staff. AUC staff incorporates any recommended changes into a draft version of a revised Rule 028. Stakeholders are then provided the opportunity to comment on the draft version to ensure the proposed wording and changes reflect the requirements of the industry. Commission approval is obtained for the revised rule once the industry comments are received and reviewed. Commission approval is sought by the end of the calendar year with implementation during the following year.

This lag between the approval date and the implementation date is to recognize that the approved revisions to Rule 028 will require industry stakeholders to make changes to their business processes and information technology systems in order to be compliant. The lag provides these entities the time to develop, implement and test their internal changes so that there is no disruption in the business processes once the revised changes are to take effect.

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1 Definitions

1.1 Key terms

backcast (B1)	Backcast is an estimate of a retailer’s aggregate and per site gas consumption near the end of the gas day using models, actual and forecast temperatures for a gas day and/or automatic meter reading.
business day	A business day means any day other than Saturday, Sunday or a statutory holiday in Alberta, except for Easter Monday.
code	Code means this set of Natural Gas Settlement System Code (NGSSC) rules.
Commission	Commission means the Alberta Utilities Commission.
customer	Customer has the meaning ascribed to the term “customer” in Part 2.1 of the <i>Gas Utilities Act</i> .
default supply provider	Default supply provider has the meaning ascribed to the term “default supply provider” in Part 2.1 of the <i>Gas Utilities Act</i> .
distribution zone	Distribution zone refers to all sites within an area defined by the load settlement agent (LSA).
distributor	Distributor has the meaning ascribed to the term “gas distributor” in Part 2.1 of the <i>Gas Utilities Act</i> .
final settlement (S3)	Final settlement is the final calculation of settlement for the settlement month.
Forecast 1 (F1)	Forecast 1 is the first estimate of a retailer’s aggregate consumption for a gas day based on forecast temperatures.
Forecast 2 (F2)	Forecast 2 is the second estimate of a retailer’s aggregate consumption for a gas day based on forecast temperatures.
Forecast 3 (F3)	Forecast 3 is the third estimate of a retailer’s aggregate consumption for a gas day based on forecast temperatures.
gas day	A gas day is the 24-hour period starting at 8 a.m.
initial monthly settlement (S1)	Initial monthly settlement is the first calculation of settlement for the settlement month.
interim settlement (S2)	Interim settlement is the second calculation of settlement for the settlement month.
load settlement agent (LSA)	LSA means the party conducting settlement calculations for a particular distribution zone.
meter data	Meter data is the measurement data associated with a metering point.
meter data manager (MDM)	An MDM is the entity responsible for collecting meter data, correcting and validating interval meter data, storing historic data and reporting consumption data together with corresponding time periods to appropriate parties.

natural gas market participant	Natural gas market participant has the meaning given the term “natural gas market participant” in Part 5 of the <i>Alberta Utilities Commission Act</i> .
profile	A profile is a series of consumption amounts for each interval over a particular time period.
profiling class	A profiling class is a group of sites that will be settled using a common profile.
retailer	Retailer either has the meaning given to the term “retailer” or the term “default supply provider” in Part 2.1 of the <i>Gas Utilities Act</i> , except in those cases where the “default supply provider” and the “distributor” are different parts of the same organization and are not required to exchange transactions as per Section 7.1 of this code, in which case the term “retailer” in the <i>Gas Utilities Act</i> is the only one that applies.
retailer of record	The retailer of record is the single retailer (as defined above) that the settlement system recognizes as serving a given site for a given day.
settlement interval	Settlement interval is the time increment at which distinct consumption estimates are calculated by the settlement system. Settlement is performed at daily intervals.
settlement month	Settlement month is the calendar month for which the initial monthly, interim and final settlement relate to.
settlement-ready data	Settlement-ready data is data that is complete and ready for use in settlement.
settlement system	A settlement system is a computer system and associated operations and interfaces used to determine the energy responsibility at each unit of the settlement interval, for each retailer operating within the distribution zone.
settlement timing	Settlement timing is the frequency at which settlement is calculated and reported to retailers by LSAs.
site	A site is a unique end-use service delivery point. This is the finest level at which settlement recognizes retailer assignments and receives consumption data.
socket	A socket is a point at which consumption is measured and a physical meter is installed. Where the consumption for a site is measured by more than one meter, the multiple measurement points are identified as sockets.
system level	System level means the daily aggregated measurement/estimate of energy into or out of a distribution zone.
unaccounted-for gas (UFG)	UFG is the difference between total system receipt and total system consumption by distribution zone. UFG in the code refers to UFG on gas distribution systems.

1.2 Common abbreviations

AUC	Alberta Utilities Commission
B1	backcast
CONP	cut off for nonpayment
DCM	daily cumulative meter consumption transaction
DEC	de-energize completion transaction
DEF	de-energize failure transaction
DER	de-energize request transaction
DSN	de-select notification transaction
DSP	default supply provider
DSR	de-select request transaction
ENC	energize completion transaction
ENF	energize failure transaction
ENR	energize request transaction
F1	Forecast 1
F2	Forecast 2
F3	Forecast 3
ID	identifier
LSA	load settlement agent
MDM	meter data manager
NGSSC	AUC Rule 028: <i>Natural Gas Settlement System Code</i>
PFEC	pre-final error correction
RCC	release CONP lock completion transaction
RCL	release CONP lock transaction
RDS	revoke de-select request transaction
RDN	revoke de-select notification transaction
RDR	revoke de-energize request transaction
ROC	request off-cycle meter read completion transaction
ROR	request off-cycle meter read transaction
RUC	request update to customer information transaction
S1	initial monthly settlement
S2	interim settlement
S3	final settlement
SMC	site metering characteristics transaction
SPC	site profile change transaction
SPV	settlement profile value transaction
SRN	select retailer notification transaction
SRO	notify old retailer transaction
SRR	select retailer request transaction
UCI	update customer information transaction
UFG	unaccounted-for gas
USA	update site address transaction
WSD	wholesale settlement details transaction
WSI	wholesale settlement information transaction
WSS	wholesale settlement summary transaction

1.3 Interpretation

In this rule, the words “shall” or “must” indicate a requirement.

2 Responsibilities

2.1 Application

All natural gas market participants are required to comply with this AUC Rule 028: *Natural Gas Settlement System Code Rules* (code).

The following responsibilities are identified for load settlement agents (LSAs), distributors and meter data managers (MDMs). These functional distinctions, or others indicated in subsequent sections, identify separate roles, responsibilities and protections in cases where these functions are performed by separate entities. However, in cases where all these functions are performed within the same business entity, these terms are descriptive only, and are not prescriptive of implementation flows within the distributor when acting as LSA for its own customers.

2.2 Settlement responsibility

Generally, this code refers to settlement as being a function of the LSA, but the distributor is either responsible for performing the LSA function or assigning the function to another business entity, with approval from the AUC.

2.3 Profile generation

Development of profiles is an LSA function. This function includes:

- (1) Research sample design and implementation.
- (2) Generation of class profiles based on historical research data.

2.4 Site identification number catalogue

- (1) A distributor must maintain an accurate and up to date catalogue of site identification numbers (site IDs), LSA identification numbers (LSA IDs) and the addresses where gas service is provided (service addresses). A distributor must provide detailed service addresses which disclose the location of the site. A distributor must use either the civic or the rural address of the site unless such address does not exist. A civic or rural address must follow the Canada Post Addressing Guidelines.
- (2) When a site is assigned a civic or rural address by the applicable municipal authority, a distributor must update the service address fields accordingly.
- (3) The distributor must provide market participants 30 days' notice of a change in location of the catalogue on its website.

2.5 Customer information/de-select reason retailer responsibilities

- (1) A retailer must maintain accurate and up to date customer and site contact information.
- (2) A retailer must use the correct de-select reason code when notifying a distributor that it will no longer provide gas services for the site.

2.6 Responsibility for estimating missing meter readings and consumption amounts

- (1) When any settlement is calculated and an actual cumulative meter read is absent or an actual cumulative meter read is available but daily usage must be calculated using that read, the LSA shall estimate consumption amounts.

- (2) For a site for which there is no prior consumption history, the distributor is responsible for creating the initial estimate of energy consumption in consultation with the retailer. This method applies only to new sites.
- (3) The MDM is responsible for estimating consumption amounts for cumulative meters according to the specific circumstances in Section 9.3.2.

2.7 Losses

- (1) The LSA is responsible for calculating distribution losses and for preparing and filing its annual application for the recovery of losses with the Commission.
- (2) Recovery of losses is in kind through the application of the recovery of the unaccounted-for gas (UFG) percentage to the daily total delivery consumption for each retailer.

2.8 Disclosure and protection

The LSA shall make publicly available (on its website) the procedures and methods used to conduct settlement, including formulas, common parameter values and system-level data. The LSA must also make available, to individual parties, data specific to those parties. The LSA shall not make publicly available data specific to individual parties.

2.9 Retailer of record

The LSA recognizes only one retailer of record for a particular site on a particular day and the LSA will only allocate energy to the retailer of record.

2.10 Estimation and liability for settlement

Responsibility for conducting forecasts, backcast and initial monthly, interim and final settlements (as described in Section 4.3) is part of the distributor's responsibility as the LSA. Distributors are not liable for the financial consequences of errors in estimates developed and provided to interested parties as part of their good-faith performance of these tasks.

2.11 Request for site ID numbers

- (1) Retailers must provide a list of the customer's site IDs with the customer's bill or provide the site IDs in an electronic format to the customer at the time of the customer bill.
- (2) Customer requests for the site ID must be responded to within two business days.

2.12 Timing of meter reads

Times refer to times on the prevailing local clock, standard or daylight time depending on the season, using a 24-hour clock. The hours, minutes and seconds 23:59:59 refer to the second before midnight, and the next second is 00:00:00 of the next day.

Each distributor has the option of reporting the time of day for meter readings as the actual meter read time or as a consistently deemed meter read time between 00:00:00 and 23:59:59 on the date that the meter was read. The same deemed timing will apply to energize and de-energize completions.

2.13 Transition of LSA/MDM/distributor

Any market participant who proposes to cause a change to the party performing the role and responsibilities of an LSA/MDM/distributor must provide written notice to each market participant that may be affected by the change. The written notice must be provided at least

90 calendar days prior to the date that the change is to take place. In addition to the written notice, both the current LSA/MDM/distributor and the new LSA/MDM/distributor designate must jointly submit a transition plan to the AUC at least 60 calendar days prior to the effective date of the change. The transition plan must include the steps and processes to be carried out by the current and designated party to ensure that the transition of role and responsibilities will be done in a reasonable manner and will not disrupt the load settlement processes and other market participants' business processes or disrupt service to customers.

3 Profiling methods

3.1 Profile generation methods

- (1) Acceptable methods:
 - (a) Dynamic estimation from research samples.
 - (b) Class-specific models.
 - (c) Site-specific interval data.
- (2) The above profiling methods apply to profiling classes used for final settlement. The same profiling methods shall be used for all wholesale settlement details transactions (WSDs).

3.2 Segmentation

- (1) Each LSA will specify publicly the existing rate classes for which separate research-based profiles may be provided.
- (2) Procedures for creating new profiling classes may be developed in consultation with stakeholders, including distributors, retailers and consumers.
- (3) Retailers (or other natural gas market participants) will pay for the costs of creating those profiling classes they request.

4 Estimation and settlement calculations

4.1 Unaccounted-for gas (UFG)

UFG will be recovered in kind from each retailer's and default supply provider's account, in the amount equal to the distributor's UFG rate, times the account daily delivery to retailer's and default supply provider's customers, rounded to the nearest gigajoule (GJ). The UFG rate is subject to approval by the Commission.

4.2 Estimation and settlement timing

4.2.1 General comments

- (1) There are four possible estimation runs for each gas day and three settlement runs for each month. The four estimation runs are: Forecast 1 (F1), Forecast 2 (F2), Forecast 3 (F3) and backcast (B1); the three settlement runs are initial monthly (S1), interim (S2) and final settlement (S3). The specific timing and data requirements for the settlement runs are described below.
- (2) Each initial monthly, interim and final settlement run will use the latest actual usage data that is available. Profiles will be frozen for a month once audited temperature data and residential sample profiles have been loaded. The data load for each month will occur by the fifth business day of the next month. Sites for which a meter reading is not available covering the day to be settled will be estimated for that day.
- (3) LSAs shall publish settlement results only once for each mandated settlement run.
- (4) LSAs may rerun any settlement run.

4.2.2 Estimation runs

Forecast 1 (F1), Forecast 2 (F2) and Forecast 3 (F3) are the first, second and third estimates respectively of a retailer's aggregate consumption for a gas day based on forecast temperatures. Backcast (B1) is the estimate of a retailer's aggregate consumption for a gas day based on actual and forecast temperatures and will be provided each day no later than 08:00. If for any reason backcast is not provided for any given day, the retailer is to use the latest forecast for balancing.

4.2.3 Initial monthly settlement

LSAs will provide initial monthly settlement (S1) results to retailers by 23:59 on the fifth business day after the end of the month being settled.

4.2.4 Interim settlement

LSAs will provide interim settlement (S2) results to retailers by 23:59 on the 15th business day of the second month following the month being settled.

4.2.5 Final settlement

LSAs will provide final settlement (S3) results to retailers by 23:59 on the 15th business day of the fourth calendar month following the month being settled.

4.2.6 Data revisions

Data revisions to date are incorporated at the initial monthly, interim and final settlement runs. No further data changes are incorporated after final settlement. LSAs are not

responsible for tracking and storing data versions between initial monthly and interim settlement. If an LSA deems it necessary, a rerun of any settlement run may be undertaken. If a retailer considers a settlement should be rerun, it will indicate this using the pre-final error correction (PFEC) process described in Section 5.2.

4.2.7 Retailer default

In the event that a retailer defaults, the settlement process is not affected by the default. Settlement will still be calculated for the defaulting retailer until final settlement has occurred.

5 Settlement error correction

5.1 General

General and specific procedures for dispute resolution among parties directly affected by settlement calculations pursuant to this code are set out below. These procedures may be used for issues that affect only the parties directly involved in the dispute. Other than as expressly allowed hereunder, no party may opt out of specific requirements and procedures herein pertaining to code-related disputes.

5.2 Dispute resolution process

5.2.1 Initiation of general dispute resolution

- (1) Each of the parties discharging functions and responsibilities under the code shall designate a contact person within its organization to administer disputes pertaining to code matters; preferably, such person will have authority sufficient to resolve normal-course business disputes. The identity and contact information for each designated person shall be made known to all other relevant parties on an ongoing basis.
- (2) Communications around disputes shall involve those contact persons designated by each of the relevant parties, as set out above. The relevant designated persons shall make their reasonable best efforts to have the dispute handled in a timely and effective manner, involving such other persons within their organization as needed to facilitate resolution efforts on the foregoing basis.
- (3) At such time as any of the parties to a dispute has determined that efforts to resolve the dispute by discussion have failed, that party may at its discretion serve a notice of dispute upon the other parties to the dispute, and upon other affected parties, in accordance with other provisions set out below.
- (4) The notice of dispute shall be as set out in Section 5.3.2(a) below. The notice of dispute will be sent with a cover letter setting out, in the opinion of the originating party, the status of the related dispute and a summary of efforts to resolve the dispute.
- (5) On or about 20 business days, and not later than 30 business days, following the service of the notice of dispute on the other parties, each party to the dispute shall communicate to the AUC in writing a status update on the resolution of the dispute, including efforts taken since the service of the notice of dispute to resolve outstanding issues and further efforts contemplated.

5.2.2 Notice of dispute

- (1) The notice of dispute, as per Section 5.3.1(4), shall be in writing, setting out the following in detail:
 - (a) The basis for the dispute, including a summary of factual basis for dispute, related argument and references to relevant provisions of the code.
 - (b) A statement that the party filing the notice of dispute agrees to abide by the dispute resolution process set out in the code in relation to notice of dispute matters.
 - (c) The names and addresses of parties to whom the notice of dispute is being delivered.
 - (d) The contact address, including street address, telephone and fax numbers, and contact person for the purposes of notice of dispute.

- (2) The notice of dispute may also include such other supporting documentation as the disputing party deems necessary.
- (3) The notice of dispute must be signed by the party submitting it; in the case of a corporation, partnership or other organization, the notice of dispute must be signed by a duly authorized representative of the disputing party.
- (4) The notice of dispute may be rejected by the LSA and considered closed where it does not include the information required by sections 5.3.2(1)(a) through (d) inclusive, or is not duly signed.
- (5) The notice of dispute must be delivered in person, by registered mail, email or facsimile transmission, or by some other means of provable delivery, to the LSA and to any other parties directly affected by the matters of the notice of dispute. The notice of dispute shall also be concurrently delivered to the AUC. Onus for proof of service of the notice of dispute on the LSA, AUC and other relevant parties rests with the party filing such notice of dispute.
- (6) Where a notice of dispute has been rejected by the LSA pursuant to Section 5.3.2(4), the LSA shall, in writing, advise the party who filed the notice of dispute, the AUC and all other parties shown on the notice of dispute, of its rejection and of the reasons for such rejection immediately.

5.2.3 Discussions and negotiations between the parties with the option to include mediation

- (1) Upon delivery of a notice of dispute in prescribed form and content, the relevant parties, including the disputing party, the LSA (or other investigating party), and other affected parties, shall attempt to resolve the dispute through discussion and negotiation.
- (2) Mediation may be entered into by the parties on such terms and conditions and involving such mediator as the relevant parties may agree to. The costs of the mediation shall be shared between the parties as agreed.
- (3) Only the parties and their representatives may attend mediation proceedings unless the parties and the mediator (as applicable) agree to the participation of other specified parties. Unless otherwise agreed by all parties, the discussions, negotiations and mediation between the parties in relation to the notice of dispute shall be conducted on a confidential and without prejudice basis to encourage open dialogue between the parties.
- (4) All information disclosed to the mediator by the parties or others in the course of mediation and identified as confidential will not be divulged by the mediator except within the mediation. All documents received by the mediator in the mediation shall be held confidential by the mediator, and the mediator shall not be compelled by any party to divulge such documents or to act as a witness in regard to the mediation in any subsequent proceedings of any nature.
- (5) Where the negotiations or mediation result in an agreement between parties, a copy of the executed agreement shall be filed with the Commission for approval before implementation. Parties must also provide the Commission with a copy of the documentation prepared pursuant to Section 5.3.2 along with a summary outlining the material terms of the agreement.

5.2.4 Dispute brought forward to the Commission

- (1) After the expiry of 20 business days immediately following the delivery of the notice of dispute to the LSA and other relevant parties, any unresolved disputes under Section 5.3.3 or any agreements that are not approved by the AUC under

Section 5.3.3(5), shall be referred to the Commission for resolution in the form of an application to the Commission for a decision on the dispute.

6 Functional requirements of the settlement calculation

The sections below define the required inputs and outputs of settlement. These sections do not dictate how settlement algorithms or calculations should be implemented. Any implementation approach that produces outputs mathematically equivalent to the outputs defined below is acceptable.

6.1 Profile freeze dates

Class profiles for a settlement month are frozen once audited temperatures and research sample data have been loaded into the settlement system for that month. This will occur prior to the running of the initial monthly settlement (S1). Once the profiles have been calculated using the above specified data, they are frozen and will not be recalculated on subsequent settlement runs.

6.2 Assumptions

These calculation formulas assume that:

- (1) Switch of a retailer will not necessarily be accompanied by a meter read on the same day.
- (2) There are missing cumulative meter read consumption values in the settlement input database due to variations in cumulative meter reading frequency.

6.3 Settlement inputs and outputs

(1) Inputs

(a) Inputs to the settlement system include the following:

- (i) Information on each site to be settled, including:
 - retailer enrolment information, energized status and other daily site attributes
 - site-level consumption information (DCMs)
 - daily usage information for demand-metered sites
- (ii) Profile data (model coefficients and variables, and research samples).
- (iii) Daily weather data: forecast, actual and audited.

(b) The standard external transactions, as described in Section 8, identify the critical information that must be transferred between external parties to support the settlement process. Individual LSAs may require additional inputs to support their specific methods of performing the settlement function.

(2) Outputs

The standard external transactions, as described in Section 8, identify the critical information that must be transferred between external parties to support the settlement process.

6.4 Required settlement reports

Settlement data will be reported to each retailer through the wholesale settlement information transaction (WSI), WSD and wholesale settlement summary transaction (WSS). WSI

transactions contain retailers' site consumption for each day summed by distribution zone. The WSD transactions contain daily usage for each site by day for all sites enrolled. The WSS transactions contain monthly aggregated consumption by retailer and distribution zone. Each retailer will receive WSD, WSI and WSS files specific to its enrolled sites.

7 Business transactions

- (1) The transaction sets required to support settlement processes are listed in Table 1. Transactions sets for which standard content or electronic transmittal is required are indicated by checkmarks in the third and fourth columns of the table, respectively. Universal standards for electronic and standard content transactions as well as detailed transaction content are provided in Section 8.
- (2) The transaction standards are required for data exchange between separate organizations or companies. However, where separate functions are performed by different parts of the same organization, such as MDM and LSA functions within the distributor, adherence to these transmittal standards is not required for transactions between these functional areas. Adherence to the standards is required for transactions between the bundled organization and any external parties.

Table 1. Business process flows and transaction sets required for settlement

Transaction set	Transaction	Standard content required?	Electronic transmittal required?
Select retailer transaction set			
	A. Select retailer request (SRR)	✓	✓
	B. Select retailer notification (SRN)	✓	✓
	C. Notify old retailer (SRO)	✓	✓
Update customer information transaction set			
	A. Update customer information (UCI)	✓	✓
	B. Request update customer information (RUC)	✓	✓
Energize site transaction set			
	A. Energize request (ENR)	✓	✓
	B. Energize failure (ENF)	✓	✓
	C. Energize completion (ENC)	✓	✓
De-energize site transaction set			
	A. De-energize request (DER)	✓	✓
	B. De-energize failure (DEF)	✓	✓
	C. De-energize completion (DEC)	✓	✓
	D. Revoke de-energize request (RDR)	✓	
	E. Release CONP lock (RCL)	✓	✓
	F. Release CONP lock completion (RCC)	✓	✓
Request off-cycle meter read transaction set			
	A. Request off-cycle meter read (ROR)	✓	✓
	B. Request off-cycle meter read completion (ROC)	✓	✓
De-select retailer transaction set			
	A. De-select request (DSR)	✓	✓
	B. De-select notification (DSN)	✓	✓
	C. Revoke de-select request (RDS)	✓	✓
	D. Revoke de-select notification (RDN)	✓	✓
Update site information transaction set			
	A. Update site address (USA)	✓	✓
	B. Site metering characteristics (SMC)	✓	✓

Transaction set	Transaction	Standard content required?	Electronic transmittal required?
	C. Site profile change (SPC)	✓	✓
Provide consumption data			
	A. Daily cumulative meter consumption (DCM)	✓	✓
Provide wholesale settlement data transaction set			
	A. Wholesale settlement information (WSI)	✓	✓
	B. Wholesale settlement summary (WSS)	✓	✓
	C. Wholesale settlement details (WSD)	✓	✓
	D. Settlement profile value (SPV)	✓	✓

7.1 Transaction transport method

- (1) The Internet is the transport mechanism for electronic data exchange.
- (2) Each participant must exchange data securely in files formatted using comma separated values (CSV format).
- (3) Appendix B identifies the current transport mechanism used by natural gas market participants.

7.2 Enrolment mechanics

- (1) Sites can switch retailers no more than once per day. All site switches occur at midnight.
- (2) The first enrolment request received by an LSA and made effective for a site for a particular day determines the site assignment from that day until the next effective retailer switch except where an enrolment request is from a default supply provider in response to a de-select request. For example, if two enrolment requests for the same site are received on the same day, one at 1 p.m. from retailer A and one at 2 p.m. from retailer B, retailer A will be assigned the site effective the next day, if the enrolment is not in response to a de-select request. However, if retailer A is a default supply provider and is requesting enrolment in response to a de-select request transaction for a site, then retailer B will be assigned the site.
- (3) The retailer shall manage the enrolment queue and shall send the enrolment request transactions to the LSA only on the calendar day prior to the desired effective date.
- (4) Enrolments can occur on any calendar day, regardless of holidays or non-working days.
- (5) All enrolment requests shall be processed to be effective at midnight following the receipt of a valid enrolment request. For example, if the enrolment is received at 23:00 on July 21, the enrolment, provided the transaction is valid, will be effective at 00:00 on July 22, one hour later.
- (6) The LSA shall process enrolment requests on the day of receipt as follows:

Notification of a site switch shall be provided to the new retailer, the retailer of record on the day preceding the switch, the distributor and the MDM in accordance with the following:

 - (a) Ninety per cent of the enrolment requests received between 07:00 and 15:00 each day will be responded to within two hours, with the remaining 10 per cent being responded to within four hours. This standard shall be based on the total number of enrolment requests received by each LSA from all retailers on a calendar day basis.

- (b) If an enrolment request is received after 15:00, there is no guarantee of notification prior to 09:00 the following day. The enrolment request will still be processed by the LSA.
 - (c) An exception to the performance standard stated in subsection (a) above shall be permitted for scheduled maintenance or for other reasons that are specifically approved by the AUC, not to exceed two non-consecutive calendar days per calendar month.
- (7) Erroneous enrolment

An erroneous enrolment arises when one of the following situations occurs prior to enrolment:

- (i) site ID and service address mismatch
 - (ii) incorrect information is provided by customer, applicant or any other party
 - (iii) error by the distributor or the retailer or its agent
- (a) When a retailer identifies that an erroneous enrolment has occurred, that retailer shall notify the LSA of the error within one business day of the discovery of the error.
 - (b) When the LSA discovers that a retailer has potentially erroneously enrolled a site, the LSA shall provide notification simultaneously to both retailers affected, including the retailer that has potentially erroneously enrolled a site and the previous retailer, within one business day of the discovery of the potential error. The retailer that has potentially erroneously enrolled a site shall investigate whether the site ID or service address was erroneously enrolled and respond simultaneously to the LSA and to the other affected retailer within five business days, confirming or denying that the site was erroneously enrolled.
 - (c) The LSA shall confirm the receipt of the notification given in accordance with Section 7.3(7)(a) above or the confirmation received from the retailer in accordance with Section 7.3(7)(b) above.
 - (d) The LSA shall contact the previous retailer within one business day from the receipt of the notification (a) or confirmation (b) from the retailer responsible for the erroneous enrolment.
 - (e) The previous retailer shall re-enrol the site within two business days from the date of notification from the LSA.
 - (f) Compliance with subsection (a) or (b) above does not preclude the retailer from de-selecting the site at any time during this process.

7.3 Changes in profiling class

- (1) If the LSA changes a site's profiling class, the LSA must notify the retailer. The LSA shall make a best effort to provide the notification in advance of the profiling class change. However, the LSA will not attempt to synchronize the notification with enrolment. The means of notification is the site profile change transaction (SPC).
- (2) For changes in profiling class in response to a retailer request, no standard transaction is required either for receiving the request or notifying the retailer of the change.

7.4 Site ID removal from site catalogue

When a site ID is removed from the catalogue, the distributor shall:

- (1) Notify the retailer that it is no longer the retailer of record for that site using the notify old retailer transaction (SRO) as per Section 8.6.3.3.
- (2) Ensure that the site ID can no longer be enrolled.
- (3) Ensure that the site ID will not be reused.

8 Information exchange standards

8.1 Purpose

- (1) The purpose of this Section 8 is to define the electronic and non-electronic information exchange standards for the business transactions. In addition to defining the format and contents of each transaction, universal standards that govern all transactions are specified.
- (2) The standards are intended to be as specific as practical to facilitate data exchange among natural gas market participants. At the same time, it may turn out in the course of system implementation that certain details require adjustment for practical reasons. These specifications may be revised if the need for such adjustment becomes clear.

8.2 Scope

The scope of this documentation is limited to the electronic and standard content transactions in Table 1 of Section 7.

8.3 Revisions

Revisions to these information exchange standards, including both additions and changes, may be made by the Commission in consultation with stakeholders.

8.4 Universal standards

8.4.1 Directory structure

The directory structure for the electronic files is dependent upon the transaction transport method.

8.4.2 File naming convention

- (1) All transactions of the same type for a period (usually one day) are to be placed in a single CSV format file. The standard file naming convention is:

TRX_From_To_YYYYMMDDHHMISS.CSV or
TRX_From_To_YYYYMMDDHHMISS.csv

where,

TRX	Three-letter abbreviation for the transaction name (e.g. “SRR”). The three letters must be in upper case format.
From	ID of the sender, either distributor ID, retailer ID or settlement ID.
To	ID of the receiver, either distributor ID, retailer ID or settlement ID.
YYYYMMDD	Date the file was created.
HHMISS	Time the file was created on a 24-hour clock.

- (2) In the case where the file has no single recipient, such as the settlement profile value transaction (SPV), the “To_” may be omitted from the file name. The file name would be as follows:

TRX_From_YYYYMMDDHHMISS.CSV or
TRX_From_YYYYMMDDHHMISS.csv

- (3) For transactions with the Transaction Status Code field populated, a rejected file may be returned to the original sender to notify the sender of any errors in individual transactions. The rejected file would be returned using the file name under which it was received, with an “R” appended at the end of the file name before the .CSV or .csv.

8.4.3 Universal transaction contents

All transactions contain the following field or elements:

- (1) Transaction abbreviation (three-character abbreviation that must be in upper case letters).
- (2) Identification of the sender (retailer ID, distributor ID or LSA ID).
- (3) Identification of the recipient (retailer ID, distributor ID or LSA ID).
- (4) Transaction date and time (the Transaction Date Time field in all transactions contains the later of the time the transaction was created or last modified).

8.4.4 Optional fields

The optional fields specified in the electronic transactions are applicable to both the sender and receiver. Either the sender or the receiver may choose to use them unless otherwise specified.

8.4.5 Data-type definitions

8.4.5.1 Char(x)

Fixed-length character always x characters in length.

“ABC” is an example of Char(3).

8.4.5.2 Varchar(x)

x designates the maximum number of characters.

“A” and “ABC” are both examples of Varchar(3).

8.4.5.3 Number(p,s)

Number with p digits of precision and s digits to the right of the decimal (scale).

“123456.78” is an example of Number(8,2).

8.4.6 Standard fields

This section contains common fields that may appear in many transactions.

8.4.6.1 Date and date time format

The standard date time format has been defined as:

YYYYMMDDHHMISS

where,

YYYY four-digit year (e.g. 1999)

MM two-digit numeric month between 01 and 12 inclusive (e.g. 09)

DD two-digit numeric day between 01 and 31 inclusive (e.g. 03)

HH hour on a 24-hour clock 00 to 23 (e.g. 22)

MI minutes 00 to 59 (e.g. 02)

SS seconds 00 to 59 (e.g. 09)

For example, 19990903220209 is September 3, 1999 at nine seconds after 10:02 p.m.

The standard date format has been defined as:

YYYYMMDD

where,

YYYY four-digit year (e.g. 1999)

MM two-digit numeric month between 01 and 12 inclusive (e.g. 09)

DD two-digit numeric day between 01 and 31 inclusive (e.g. 03)

For example, 19990903 is September 3, 1999.

8.4.6.2 Telephone number format

The standard telephone format used for telephone numbers in Canada and the United States has been defined as:

AAANNNNNNNXXXX

where:

AAA area code used in Canada and the United States

NNNNNNN telephone number

XXXX extension (if any)

8.4.6.3 Time conventions

(1) Clock time

Times refer to times on the prevailing local clock, standard or daylight time depending on the season.

(2) Adjusting for daylight saving

For determining the start and end of the gas day, there is no adjustment for daylight saving. The gas day always starts at 08:00 Mountain Standard Time.

During the period of daylight saving, therefore, the start of the gas day is at 09:00 Mountain Daylight Time (i.e. 08:00 Mountain Standard Time).

8.4.6.4 ID assignments

A unique ID will be set up for each business function within the distributor. The distributor will have a three-digit number ID prefixed with a "0"; the LSA will have a

three-digit number ID prefixed with a “1”; and the MDM will have a three-digit number ID prefixed with a “2.”

8.4.6.5 Retailer and business function IDs

(1) Retailer ID

The retailer ID is a nine-digit number that uniquely represents each retailer operating within Alberta (e.g. 123456789).

(2) Business function ID

Business function ID codes and processing rules must be interoperable. Business rules may vary from participant to participant. While failures may result from business rule violations, transactions should not fail due to implementation logic. If the business function ID field is not used by the LSA, it may be ignored when received in transactions from a retailer, but a file may not be rejected for this reason. The business function ID codes are shown in Appendix A.

8.4.6.6 Distributor ID

- (1) A four-digit number uniquely represents each distributor operating within Alberta to which Rule 028 is applicable.

Refer to the distributor ID table in Appendix A.

8.4.6.7 Load settlement agent (LSA) ID

- (1) A four-digit number uniquely represents each LSA operating within Alberta.
- (2) The LSA ID is required in transactions as a verification check for the LSA. The LSA will only process files where the LSA ID is equal to its own.

Refer to the LSA ID table in Appendix A.

8.4.6.8 Meter data manager (MDM) ID

- (1) A four-digit number uniquely represents each meter data management company operating within Alberta.
- (2) The MDM ID is required on transactions to inform the receiver of the data the party responsible for reading the meter. This becomes important in zones that have multiple MDMs or in the case where an LSA is settling multiple zones.

Refer to the MDM ID table in Appendix A.

8.4.6.9 Zone ID

A four-digit number uniquely represents each gas distribution zone. The ID is assigned by the LSA. Refer to the Zone ID table in Appendix A.

8.4.6.10 Site ID

- (1) A site ID possesses the following characteristics:

- (a) A site ID can be enrolled by a retailer.

- (b) Consumption is allocated at the site ID.
 - (c) Settlement occurs at the level of site ID.
- (2) A check digit is required to minimize the possibility of entering an incorrect site ID (for example, transposition errors on the part of the retailer). This check digit is a calculated number placed into the site ID.
 - (3) In the event the distributor for a site changes, the first four digits of the site ID must be changed to reflect the new distributor ID. In this situation, the distributor also has the option of changing the entire site ID.
 - (4) Site ID format:

GasdistributorID99999999Chk

where,

Distributor ID	Distributor ID (e.g. 0001).
99999999	Eight numbers identifying a site, and each distributor can administer as they see fit.
Chk	Single check digit formed by dividing the total of the prior numbers by nine and determining the remainder. The remainder is used as the check digit, having a value between zero and eight.

- (5) Check digit calculation example:

Sum the following numbers:

- Digit 1 (left to right) of the Site ID x 1
- Digit 2 (left to right) of the Site ID x 2
- Digit 3 (left to right) of the Site ID x 3
- ...
- Digit 12 (left to right) of the Site ID x 12

Using a sample of 001085434216

The check digit is

0	1x0
0	2x0
3	3x1
0	4x0
40	5x8
30	6x5
28	7x4
24	8x3
36	9x4
20	10x2
11	11x1
72	12x6

264	

264 / 9 remainder 3

Check digit = 3

Full number is 0010854342163

8.4.6.11 Socket ID

A site ID may have multiple meters associated with it. When this occurs, a socket ID number is assigned to the individual measurement points that combined make up the site.

The socket ID is an eight-digit number.

8.4.6.12 Site ID catalogue transaction (SID) — information requirements

- (1) The SID is an electronic file in CSV format. No commas are permitted within a field.
- (2) Abbreviations used in addresses must follow Canada Post Addressing Guidelines.
- (3) The SID file is to be updated for accuracy each business day before 9:00 a.m.
- (4) Transport/delivery is at the discretion of each distributor.
- (5) A distributor must provide the information in a mandatory field in Table 2. In addition, a distributor must provide the information in a conditional field in Table 2, if it has the information required in the conditional field in its records. A distributor may provide the information in an optional field, but is not required to do so.
- (6) A distributor must provide a site ID and location information for all sites to which it provides delivery services, in the SID file format. A distributor must respond to requests for site IDs that are not in the site ID catalogue by the end of the next business day.
- (7) A distributor must provide all available information to identify the location of a site, including the civic address, the rural address, the legal land description, or any other site identification information. At a minimum, the civic or rural address must be provided if it exists. A civic or rural address must follow the Canada Post Addressing Guidelines. For example, if an apartment number exists as part of the civic address, it must be provided. In cases where no civic or rural address exists for a site, but subsequently a site is assigned a civic or rural address by the applicable municipal authority, a distributor must update the service address fields accordingly.

Table 2. Site ID catalogue transaction (SID)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"SID"	Mandatory field -Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field -Later of the time the transaction was created or last modified.
3	MDM ID	MDM ID format	Mandatory field - MDM responsible for reading the meter. See Appendix A, Table A-5.
4	Distributor ID	Distributor ID format	Mandatory field - Sender (distributor for the site). See Appendix A, Table A-3.

Sequence	Field	Data type/size	Description
5	LSA ID	LSA ID format	Mandatory field - LSA responsible for settling the energy consumption within the zone. See Appendix A, Table A-4.
6	Site ID	Site ID format	Mandatory field - Unique identifier representing a site. See Section 8.4.6.10.
7	Municipality	Varchar(100)	Mandatory field - Name of the municipal entity to which franchise fees apply for the site. Should match published legal listing from Alberta Municipal Affairs.
8	Unit Designator	Varchar(15)	Conditional field – Required if it exists in the distributor service address. Used to define individual units where no unit number exists, e.g., "Back," "Basement."
9	Unit Number	Varchar(6)	Conditional field – Required if it exists in the distributor's service address. Apartment number, etc.
10	House Number	Varchar(6)	Conditional field – Required if it exists in the distributor's service address.
11	Street Pre-Direction	Varchar(2)	Conditional field – Required if it exists in the distributor's service address. Standard direction codes (N, W, SW, etc.) which appear in front of the street name, e.g., "W Georgia ST"
12	Street Name	Varchar(50)	Conditional field – Required if it exists in the distributor's service address. If street name is a number, include the digit, not the spelled out name.
13	Street Type Code	Varchar(8)	Conditional field – Required if it exists in the distributor's service address. Valid Canada Post codes are required.
14	Street Direction	Varchar(2)	Conditional field – Required if it exists in the distributor's service address. Standard direction codes (N, W, SW, etc.) which appear after the street name, e.g., "Millwoods RD W."
15	City Quadrant	Varchar(2)	Conditional field – Required if it exists in the distributor's service address. Standard direction codes (N, W, SW, etc.) which designate a quadrant of a city.
16	City/Town Name	Varchar(50)	Conditional field – Required if it exists in the distributor's service address. Usual name of the city, town, village, summer village, hamlet, etc.
17	Province	Char(2)	Conditional field – Required if it exists in the distributor's service address for sites not in Alberta.
18	Legal Subdivision Code (LSD)	Varchar(2)	Conditional field – Required if it exists in the distributor's service address. Sections are divided into four quarters or into 16 legal subdivisions. They are numbered from 1 to 16.
19	LSD Quadrant	Varchar(1)	Conditional field – Required if it exists in the distributor's service address. LSDs are divided into four quadrants: A, B, C and D.
20	Quarter Section Code	Varchar(2)	Conditional field – Required if it exists in the distributor's service address. Quarters divide each section into four parts: NE, NW, SE, SW. This field may optionally be used for: "RL" – River lot
21	Section	Number(2)	Conditional field – Required if it exists in the distributor's service address. Sections are divided into four quarters or into 16 legal subdivisions. They are numbered from 1 to 36.
22	Township	Number(3)	Conditional field – Required if it exists in the distributor's service address. Townships are numbered from south to north starting at the U.S. border. They are numbered from 1 to 129 and 141. Each township is six miles (~10 kilometres) wide.
23	Range	Number(2)	Conditional field – Required if it exists in the distributor's service address. Ranges are numbered from east to west starting from each meridian. They are numbered 1 to 34. Each range is six miles (~10 kilometres) wide.
24	Meridian	Varchar(1)	Conditional field – Required if it exists in the distributor's service address. A meridian defines a block of land between an east and west boundary. For Alberta, the meridian may be 4, 5, 6 with 4 being the Saskatchewan border, 5 running just east of the Calgary International Airport and 6 being just east of Jasper. The "W" is implied.
25	Rural House Number	Varchar(8)	Conditional field – Required if it exists in the distributor's service address. A house number. This is sometimes used in First Nations Reserves to identify unique residences within the rural scheme.

Sequence	Field	Data type/size	Description
26	Legal Lot	Varchar(6)	Conditional field – Required if it exists in the distributor’s service address. Defines a lot within a city block.
27	Lot Range ID	Varchar(5)	Conditional field – Required if it exists in the distributor’s service address.
28	Block	Varchar(5)	Conditional field – Required if it exists in the distributor’s service address. Defines a city block within a plan.
29	Government Plan ID	Varchar(8)	Conditional field – Required if it exists in the distributor’s service address. For urban areas, a registered plan defines an area within a city, usually a community or legal subdivision.
30	Latitude Coordinates	Number(8,6)	Optional field - Populated if the distributor has this information. Coordinates for the location of the site. E.g., Latitude Number (8,6) format 99.999999 E.g., Civic address: 600 3rd Ave S.W., Calgary Latitude: 51.051073
31	Longitude Coordinates	Number(10,6)	Optional field - Populated if the distributor has this information. Coordinates for the location of the site. E.g., Longitude Number (10,6) format -999.999999 E.g., Civic address: 600 3rd Ave S.W., Calgary Longitude: -114.073840
32	Address Lot ID	Varchar(10)	Conditional field - Required if it exists in the distributor’s service address. A lot number to identify a lot within a rural addressing scheme. Example: (54 is the Lot ID) "54 26540 Range RD 11 Red Deer County AB T4E 1A3"
33	Address Pre-Road Number	Varchar(10)	Conditional field - Must be populated if it exists in the distributor’s service address. Number that appears before the road type in the Canada Post Addressing Guidelines (e.g., "26540" in the above example is the pre-road number).
34	Address Road Type	Varchar(20)	Conditional field - Must be populated if it exists in the distributor’s service address. Road type in the Canada Post Addressing Guidelines e.g., Township Road = TWP RD, Highway = HWY, Range Road = Range RD. ('Range Road' in the above example is the road type).
35	Address Post Road Number	Varchar(10)	Conditional field - Must be populated if it exists in the distributor’s service address. Number of the road that appears after the road type in the Canada Post Addressing Guidelines ("11" in the above example is the road number).
36	Area Name	Varchar(30)	Optional field – Populated at sender’s discretion. Oilfield name, subdivision name, etc.
37		[null]	Not used for gas.
38	Cluster Correlation Key	Number(13)	Optional field –Populated at sender’s discretion. Identifies a grouping of sites which are normally handled jointly with regards to enrolment.
39	Unformatted Address	Varchar(65)	Optional field –Populated at sender’s discretion. Address information that does not fit Canada Post Addressing Guidelines.
40	Site Reference	Varchar(50)	Optional field –Populated at sender’s discretion. Supporting helpful information.
41	Micro-generator Indicator	Char (1)	Mandatory field – Value is: "N"
42	Virtual Site Indicator	Char(1)	Conditional field - 'Y' in the case of a virtual grouped site with no physical service address. E.g., When a single site ID is used to represent multiple services such as: street lights, rail road crossings, transit bus shelters, etc.
43	Historic Site ID	Varchar(13)	Optional field - populated if site was transferred from one distributor to another.
44	Affiliated Site ID	Varchar(13)	Optional field - To alert a retailer that the Site IDs are affiliated.
45	Tariff Rate Code	Varchar(20)	Conditional field – If the tariff rate code exists, this field is mandatory. Distributor’s tariff rate code for the site.
46	Meter Number	Varchar(20)	Conditional field – If the is a meter at a site, this field is mandatory; otherwise this field is [null]. Identifies the meter number currently at the site. If the site has multiple meters, use the primary meter number to identify the site.

8.5 Transaction principles

8.5.1 Rejected by transaction not by file

Only transactions that fail validation are rejected, not the entire file. The sender is notified by reason code for each failed transaction. If the file is corrupted, the complete file will be rejected. The receiver will notify the sender of problems on a per transaction basis as soon as practical.

8.5.2 No header information

To simplify file loading procedures, transaction files are to be defined without header information.

8.5.3 Transaction will not contain additional fields for custom use

To keep the transactions standard, fields can only be added or removed if approved by the Commission in consultation with stakeholders.

8.5.4 Transactions will not contain descriptive fields

- (1) To prevent potential misuse and to limit the complexity of transaction creation, descriptive fields are not allowed. For example, field “Other Reject Reason Description – Varchar(80)” is not allowed.
- (2) The following transactions and specific fields are exempt from this principle:
 - (a) ENR - Message to Distributor field.
 - (b) DER - Message to Distributor field.
 - (c) ROR - Meter Access Instructions field.
 - (d) ROC - Off-cycle Incomplete Reason field.

8.5.5 Transaction file contents

No more than one transaction type will be contained in a file.

8.6 Provincial standard transactions

The following transactions are standard in content, packaging and delivery method. They must be delivered in CSV format via the Internet. Additional delivery methods may be built as long as this method is supported.

8.6.1 Provide current consumption data from MDM

Retailers are to receive metering data at the site level, unless they have a bilateral agreement with the MDM to provide the totalized data at the socket level. Settlement settles at the site level and is to receive the metering data at the site level.

8.6.1.1 Daily cumulative meter consumption transaction (DCM) – information requirements

- (1) DCM date time usage:

- (a) The Transaction Date Time field of the DCM shall be populated with the later of the time the transaction was created and the time it was last modified.
- (b) The Current Reading Date Time field of the DCM shall be populated with actual or deemed values, at the discretion of the MDM. If a deemed value is used, the date shall be the date the meter was actually read.
- (c) The Last Reading Date Time field of the DCM must be identical to the Current Reading Date Time field of the prior DCM for the same site except when the energize status of a site has changed.
- (d) There must be a difference between the Last Reading Date Time field of a DCM and the Current Reading Date Time field of the same DCM.
- (e) Gaps between the Last Reading Date Time field of a DCM and the Current Reading Date Time field of the prior DCM are only permitted when a site is in a de-energized state.
- (f) The Last Meter Dial Reading field of a DCM must be identical to the Current Meter Dial Reading field from the prior DCM, when the meter is unchanged.

(2) DCM rejection rules

(a) Tests

Notwithstanding file or format errors, an LSA may only reject a DCM record on the basis of:

- (i) overlaps
- (ii) negative usage

(b) Rejection process

(i) LSA overlaps and negative usage errors

- When the LSA rejects a DCM due to the conditions identified in Section 8.6.1.1(2)(a), the LSA shall notify the MDM within two business days of excluding the DCM from settlement.
- Only the records rejected on the basis of file or format errors will be returned using the same file name under which it was received but with an appended "R." Each rejected record will contain the reason for the rejection of that record in the Transaction Status Code field.
- When a DCM is rejected and the rejection reason in the Transaction Status Code field is for one of the tests in Section 8.6.1.1(2)(a), the MDM shall send a cancel DCM as per Section 8.6.1.1(3) within one business day to the LSA and retailers.

(ii) Retailer rejection process for content errors

- Retailers shall notify the LSA for all errors other than file or format errors.

(3) DCM cancellation

(a) Single DCM cancellation

- (i) The MDM will indicate specifically which record to cancel by sending a cancellation DCM indicated by “CA” in the Record Status field. All cancellation DCM fields should match exactly to the DCM to be cancelled except for the following fields:
 - Transaction Date Time
 - Record Status
 - Transaction Status Code
- (ii) Records with a “CA” status should appear first in every file.
- (iii) A DCM that is generated from two valid meter reads shall not be cancelled and replaced after final settlement unless one of the two meter reads that feed into the DCM is considered invalid according to Measurement Canada’s guidelines.

(b) Multi-DCM cancellation

- (i) Multi-DCM cancellation will be used at the discretion of the MDM, where a single DCM cancellation may not resolve the issue.
- (ii) Multi-DCM cancellation will only be used for replacement of data for a specific site, and not for multiple sites.
- (iii) Where a site is made up of multiple sockets, all are cancelled and replaced as stated above.

(c) DCM status flags

Refer to Table A-7 DCM status flag codes in Appendix A.

(4) DCM provision during retailer switch

Where no meter reading exists at the time a site with a cumulative meter switches retailers, the MDM shall provide the next actual meter read that becomes available to all retailers that served the site since the previous actual meter read.

Table 3. Daily cumulative meter consumption transaction (DCM)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	“DCM”	Mandatory field - Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field - Later of the time the transaction was created or last modified.
3	MDM ID	MDM ID format	Mandatory field - Sender (MDM responsible for reading the meter). See Appendix A, Table A-5.
4	Retailer ID	Retailer ID format	Mandatory field – Recipient (retailer associated with the site).
5	Business Function ID	Varchar(2)	Optional Field - Populated at sender’s discretion. See Appendix A, Table A-2.
6	LSA ID	LSA ID format	Mandatory field - Recipient (LSA responsible for settling the energy consumption within the zone). See Appendix A, Table A-4.
7	Site ID	Site ID format	Mandatory field - Unique identifier representing a site. See Section 8.4.6.10.
8	Socket ID	Socket ID format	Optional field - Populated at sender’s discretion. See Section 8.4.6.11.

Sequence	Field	Data type/size	Description
9	Meter Number	Varchar(20)	Conditional field – Required if the site has a meter; otherwise this field is [null]. Identifies the meter number currently at the site. If the site has multiple meters, use the primary meter to identify the site.
10	Energy Usage	Number(12,4)	Mandatory field - GJ consumption for period.
11		[null]	Not used for gas.
12	Measured Demand	Number(8,2)	Conditional field – Highest 24-hour energy consumption within the reading period if required by the profiling class; otherwise this field is [null].
13	Last Reading Date Time	Date time format	Mandatory field - Date and time of the last reading.
14	Current Reading Date Time	Date time format	Mandatory field - Date and time of the current reading.
15	Last Meter Dial Reading	Number(10)	Conditional field – Required if the site has a meter; otherwise this field is [null]. The previous dial reading taken from the meter.
16	Current Meter Dial Reading	Number(10)	Conditional field – Required if the site has a meter; otherwise this field is [null]. The current dial reading taken from the meter.
17		[null]	Not used for gas.
18		[null]	Not used for gas.
19	Billing Multiplier	Number(14,9)	Conditional field – Required if the site has a meter; otherwise this field is [null]. Billing multiplier used to convert the readings to usage.
20	Consumption Status	Char(2)	Mandatory field - Describes the type of meter reading. See Appendix A, Table A-7.
21		[null]	Not used for gas.
22	Demand Status	Char(2)	Conditional field – Required if the site has a meter that measures demand; otherwise this field is [null]. Describes the type of meter reading. See Appendix A, Table A-7.
23	Record Status	Char(2)	Conditional field – If the meter reading is being cancelled this field is mandatory. "CA" – Cancelled. This code indicates that the receiver should cancel their version of this exact record. Sending this record eliminates confusion over the replacement record, especially when the replacement record may not cover the same period as this cancelled record.
24	Transaction Status Code	Char(4)	Conditional field – If the transaction is being sent by the MDM, this field is [null]; otherwise this field is mandatory when a retailer or the LSA is sending the transaction to notify the MDM of problems with the transaction. Applicable transaction status codes in Appendix A, Table A-8 must be used.

8.6.2 Wholesale settlement data transfers

8.6.2.1 Wholesale settlement information transaction (WSI) – information requirements

(1) WSIs that are sent to retailers are sent to the specific retailers only.

Table 4. Wholesale settlement information transaction (WSI)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"WSI"	Mandatory field - Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field - Later of the time the transaction was created or last modified.
3	LSA ID	LSA ID format	Mandatory field - Sender (LSA responsible for settling the load within the zone). See Appendix A, Table A-4.
4		[null]	Not used for gas.
5	Retailer ID	Retailer ID format	Mandatory field – Recipient (retailer associated with the site).
6	Business Function ID	Varchar(2)	Optional field – Populated at sender's discretion. See Appendix A, Table A-2.
7	Zone ID	Zone ID format	Mandatory field – Gas distribution zone. See Appendix A, Table A-6.

Sequence	Field	Data type/size	Description
8		[null]	Not used for gas.
9	Settlement Run Date Time	Date time format	Mandatory field – Date and time settlement was initiated. This date does not indicate which data was used by the settlement run.
10	Settlement As At Date Time	Date time format	Mandatory field – Date and time that all data used by this settlement run was in the settlement system. Supports reproducibility of settlement at a later time than the original settlement run. This allows the same data to be used regardless of how many times a run is performed.
11	Settlement Type	Char(2)	Mandatory field – "F1," "F2," "F3," "B1," "S1," "S2" or "S3" for Forecast 1, Forecast 2, Forecast 3, backcast, initial monthly, interim or final settlement runs respectively.
12	Audited Temperature End Date	Date time format	Mandatory field – The audited temperature date at the time of the settlement run.
13	Settlement Interval Start Time	Date time format	Mandatory field – Date and start time of the interval the settlement data is for. This will be the start of the gas day at 08:00 standard time.
14	Interval Period	Number(4)	Mandatory field – "1440" for number of minutes in the gas day.
15		[null]	Not used for gas.
16	Retailer Usage Total (GJs)	Number(12,4)	Mandatory field – Total of the consumption for all of the retailer's sites in the distribution zone for the interval.
17		[null]	Not used for gas.
18		[null]	Not used for gas.
19		[null]	Not used for gas.
20		[null]	Not used for gas.

8.6.2.2 Wholesale settlement summary transaction (WSS) – information requirements

- (1) The WSS is a control report, providing a monthly summation. The WSS is sent in conjunction with the initial monthly (S1), interim (S2) and final settlement (S3) WSI transactions.
- (2) Transactions that are sent to retailers are sent to the specific retailers only.

Table 5. Wholesale settlement summary transaction (WSS)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"WSS"	Mandatory field - Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field - Later of the time the transaction was created or last modified.
3	LSA ID	LSA ID format	Mandatory field - Sender (LSA responsible for settling the load within the zone). See Appendix A, Table A-4.
4		[null]	Not used for gas.
5	Retailer ID	Retailer ID format	Mandatory field – Recipient (retailer associated with the site).
6	Business Function ID	Varchar(2)	Optional field – Populated at sender's discretion. See Appendix A, Table A-2.
7	Zone ID	Zone ID format	Mandatory field – Gas distribution zone. See Appendix A, Table A-6.
8	Settlement Type	Char(2)	Mandatory field – "S1," "S2" or "S3" for initial monthly, interim or final settlement runs respectively.
9	Settlement Month	Number(6)	Mandatory field – Year and month (YYYYMM) of the settlement data being summarized.
10	Retailer Usage Total (GJs)	Number(17,4)	Mandatory field – Total of the consumption for all of the retailer's sites in the month.
11		[null]	Not used for gas.
12		[null]	Not used for gas.
13		[null]	Not used for gas.

Sequence	Field	Data type/size	Description
14		[null]	Not used for gas.

8.6.2.3 Wholesale settlement details transaction (WSD) — information requirements

- (1) The WSD provides daily site-specific settlement results to retailers for energized sites enrolled to them.
- (2) The site characteristics in this transaction are those characteristics in effect at the end of the settlement day.

Table 6. Wholesale settlement details transaction (WSD)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"WSD"	Mandatory field - Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field - Date and time that the transaction was created.
3	LSA ID	LSA ID format	Mandatory field – Sender (LSA responsible for settling the load within the zone). See Appendix A, Table A-4.
4	Retailer ID	Retailer ID format	Mandatory field – Recipient (retailer associated with the site).
5	Business Function ID	Varchar(2)	Optional field – Populated at sender's discretion. See Appendix A, Table A-2.
6	Site ID	Site ID format	Mandatory field – Unique identifier representing a site. See Section 8.4.6.10.
7	Zone ID	Zone ID format	Mandatory field – Gas distribution zone. See Appendix A, Table A-6.
8	Settlement Run Date Time	Date time format	Mandatory field – Date and time settlement was initiated. This date does not indicate which data was used by the settlement run.
9	Settlement As At Date Time	Date time format	Mandatory field – Date and time that all data used by this settlement run was in the settlement system. Supports reproducibility of settlement at a later time than the original settlement run. This allows the same data to be used regardless of how many times a run is executed.
10	Settlement Type	Char(2)	Mandatory field – "B1," "S1," "S2" or "S3" for backcast, initial monthly, interim or final settlement runs respectively.
11	Audited Temperature End Date	Date time format	Mandatory field – The audited weather date at the time of the settlement run.
12	Settlement Interval Starting Time	Date time format	Mandatory field – Date and start time of the interval the settlement data is for. This will be the start of the gas day at 08:00 standard time.
13	Profiling Class	Varchar(20)	Mandatory field –The site's profiling class.
14		[null]	Not used for gas.
15		[null]	Not used for gas.
16	Daily Site Usage (GJ)	Number(12,4)	Mandatory field – Settled consumption for the site for the day.
17	Result Source	Char(1)	Mandatory field – Daily site usage was calculated using: "M" – DCM covering the settlement day and frozen profiles "E" – LSA-generated consumption estimate (proxy day estimate or model estimate scaled by prior DCM) "A" – LSA generated consumption estimate (model estimate scaled by annual consumption).
18		[null]	Not used for gas.
19		[null]	Not used for gas.
20	Weather Zone	Varchar(20)	Mandatory field – Weather zone based on geographic location of site.
21		[null]	Not used for gas.
22		[null]	Not used for gas.

8.6.2.4 Settlement profile value transaction (SPV) — information requirements

- (1) The SPV will not be directed to a specific retailer but will be made available to all retailers.
- (2) This transaction is sent out with the initial monthly settlement run and then frozen for all subsequent settlement runs.
- (3) The Daily Profile Value field provides the energy usage values that a retailer can use to convert DCM usage for a site to the daily site usage shown in that site's WSD.

Table 7. Settlement profile value transaction (SPV)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"SPV"	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	LSA ID	LSA ID format	Mandatory field – Sender (LSA responsible for settling the load within the zone). See Appendix A, Table A-4.
4	Zone ID	Zone ID format	Mandatory field – Gas distribution zone. See Appendix A, Table A-6.
5	Weather Zone	Varchar(20)	Mandatory field – Weather zone based on geographic location of site.
6	Settlement Run Date Time	Date time format	Mandatory field – Date and time settlement was initiated. This date does not indicate which data was used by the settlement run.
7	Settlement As At Date Time	Date time format	Mandatory field – As at date and time of the settlement run that used the profiles. Identifies the settlement these profiles are for.
8	Settlement Type	Char(2)	Mandatory field – "S1" for initial monthly settlement run.
9	Profile Type	Varchar(20)	Mandatory field – Type of profile (e.g. "Sample," "Model").
10	Profiling Class	Varchar(20)	Mandatory field – Profiling class, if for a specific class.
11	Settlement Interval Starting Time	Date time format	Mandatory field – Date and start time of the interval the settlement data is for. This will be the start of the gas day at 08:00 standard time.
12	Interval Period	Number(4)	Mandatory field – "1440" for number of minutes in the gas day.
13		[null]	Not used for gas.
14	Daily Profile Value (GJ)	Number(12,4)	Mandatory field – Profile usage for the gas day.

8.6.3 Select retailer transaction set

8.6.3.1 Select retailer request transaction (SRR) — information requirements

- (1) When enrolling a site, the retailer shall send an SRR, along with an update customer information transaction (UCI) as detailed in Section 8.6.4. The UCI must be populated as per Section 8.6.4.
- (2) The LSA may reject an enrolment if a UCI is not received. An enrolment may not be rejected on the basis of a failed UCI. The LSA's validation process for enrolment may only include that a populated UCI was received.
- (3) If the UCI in question is rejected by the distributor, the retailer must send a corrected UCI within one business day of the effective date of the enrolment. For example, if an enrolment of a site becomes effective at 00:00 on March 27, and the UCI is rejected due to transaction errors, the retailer must send a corrected UCI by 00:00 on March 28.

Table 8. Select retailer request transaction (SRR)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"SRR"	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	Retailer ID	Retailer ID format	Mandatory field – Sender (enrolling retailer).
4	Business Function ID	Varchar(2)	Mandatory field – See Appendix A, Table A-2.
5	Site ID	Site ID format	Mandatory field – Unique identifier representing a site. See Section 8.4.6.10.
6	LSA ID	LSA ID format	Mandatory field – Recipient (LSA responsible for settling the energy consumption within the zone). See Appendix A, Table A-4.
7	Priority Code	Char(1)	Mandatory field – The only value acceptable is: "1" – for Next Day.
8		[null]	Not used for gas.
9	Retailer Account Number	Varchar(30)	Optional field – Account number by which a retailer identifies a site.
10	Retailer Reference Number	Varchar(20)	Optional field – Identification number assigned by retailers.

8.6.3.2 Select retailer notification transaction (SRN) – content

Table 9. Select retailer notification transaction (SRN)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"SRN"	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	LSA ID	LSA ID format	Mandatory field – Sender (LSA responsible for settling the energy consumption within the zone). See Appendix A, Table A-4.
4	Retailer ID	Retailer ID format	Mandatory field – Recipient (retailer that sent the SRR).
5	Business Function ID	Varchar(2)	Optional field – Populated at sender's discretion. See Appendix A, Table A-2.
6	Site ID	Site ID format	Mandatory field – Unique identifier representing a site. See Section 8.4.6.10.
7	Switch Date	Date time format	Conditional field – If Enrolment Notification Code field = "0000" this field is mandatory; otherwise this field is [null].
8	Profiling Class	Varchar(20)	Conditional field – If Enrolment Notification Code field = "0000" this field is mandatory; otherwise this field is [null].
9		[null]	Not used for gas.
10	Enrolment Notification Code	Char(4)	Mandatory field – Provides notification to the retailer that its enrolment request was successful or failed, using a transaction status code from Appendix A, Table A-8.
11	Retailer Account Number	Varchar(30)	Conditional field – Account number by which a retailer identifies a site. If provided in the SRR this field is mandatory; otherwise this field is [null].
12	Retailer Reference Number	Varchar(20)	Conditional field – Identification number that allows retailers to track their transactions easily. If provided in the SRR this field is mandatory; otherwise this field is [null].
13	Energized Indicator	Char(1)	Conditional field – If Enrolment Notification Code field = "0000" this field is mandatory; otherwise this field is [null]. Indicates the energization status of the site at the time of successful enrolment. Values are: "Y" – Energized "N" – De-energized. Values are based on LSA's energization status at the time of creation of the SRN and are not intended for settlement balancing purposes.

8.6.3.3 Notify old retailer transaction (SRO) — information requirements

The SRO is sent from the LSA to the old retailer to notify them of loss of a site.

Table 10. Notify old retailer transaction (SRO)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	“SRO”	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	LSA ID	LSA ID format	Mandatory field – Sender (LSA responsible for settling the energy consumption within the zone). See Appendix A, Table A-4.
4	Retailer ID	Retailer ID format	Mandatory field – Recipient (old retailer).
5	Business Function ID	Varchar(2)	Optional field – Populated at sender’s discretion. See Appendix A, Table A-2.
6	Site ID	Site ID format	Mandatory field – Unique identifier representing a site. See Section 8.4.6.10.
7	Switch Date	Date Time	Mandatory field – Date and time the old retailer is no longer retailer of record for the site. Time will be the first hour of the day.
8	Reason for Loss of the Site	Char(4)	Conditional field – If the site has been removed or is scheduled to be removed from the site ID catalogue, populate with “0001”; otherwise this field is [null].
9	Old Retailer Account Number	Varchar(30)	Optional field – Account number by which old retailer identifies a site.

8.6.4 Update customer information transaction set

8.6.4.1 Update customer information transaction (UCI) – information requirements

- (1) The following UCI provisions set out requirements respecting the transfer of important customer and emergency contact information from the retailer to the distributor. This information is needed so that the distributor may execute its duties to facilitate customer transfer to the default supply provider (DSP), if required, and to permit safe and secure operation of the gas distribution service. To that end, “customer” in this section refers to the person, including a company or other legal entity, financially responsible for a site. Additionally, “site contact” refers to the individual responsible for emergency and service outage management and any other day-to-day functions at a site.
- (2) A retailer must provide the information in a mandatory field in Table 11. In addition, a retailer must provide the information in a conditional field in Table 11, if it has the information required in the conditional field in its records. A retailer may provide the information in an optional field, but is not required to do so.
- (3) A retailer must provide a detailed mailing address for the customer, that is the civic or rural address, unless a civic or rural address does not exist for the customer. A civic or rural address must follow the Canada Post Addressing Guidelines. For example, if an apartment number exists as a part of the civic address, the retailer must provide it.
- (4) A retailer must request a telephone number and an email address from a customer and provide the information received in the appropriate fields of the UCI transaction. A retailer must populate either a telephone number field or an email address field, or both, if available for a customer upon enrolment, unless the customer was transferred to the default supply provider and this information was

not available or invalid at the time of transfer. However, the default supply provider must populate these fields when the customer information becomes known and the default supply provider must resend all of the data to the distributor.

- (5) In the case of a customer who has a principal and agent relationship with another person and the agent is financially responsible for the site, a retailer must populate fields 17 to 43 with the information of the agent rather than that of the principal.
- (6) Update/refresh mechanism: whenever a retailer knows that any of the information set out in the UCI transaction has changed, the retailer must resend all of the data to ensure data is accurate and up to date.

Table 11. Update customer information transaction (UCI)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"UCI"	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	Retailer ID	Retailer ID format	Mandatory field – Sender (retailer associated with the site).
4	Distributor ID	Distributor ID format	Mandatory field - Recipient (distributor for the site). See Appendix A, Table A-3.
5	Site ID	Site ID format	Mandatory field – Unique identifier representing a site. See Section 8.4.6.10.
6	Customer Company Name	Varchar(150)	Conditional field – Required if it exists in the retailer’s record of the customer’s information. Must be [null] if Customer Last Name and Customer First Name is populated.
7	Operating as	Varchar(150)	Optional field – Populated at sender’s discretion.
8	Customer c/o or Attention Field	Varchar(150)	Optional field – Populated at sender’s direction. Additional delivery information E.g., Finance Department, Property Manager, etc.
9	Customer Last Name	Varchar(100)	Conditional field – Required if it exists in the retailer’s record of the customer’s information. Must be [null] if Customer Company Name is populated. Must be populated if the Company Name is [null]. “Customer” refers to the person or legal entity financially responsible for a site.
10	Customer First Name	Varchar(100)	Conditional field – Required if it exists in the retailer’s record of the customer’s information. Must be [null] if Customer Company Name is populated. Must be populated if the Company Name is [null]. “Customer” refers to the person or legal entity financially responsible for a site.
11	Customer Phone Number	Telephone Number Format	Conditional field – Required if it exists in the retailer’s record of the customer’s information and is a telephone number in Canada or the United States. See section 8.4.6.2 for example. “Customer” refers to the person or legal entity financially responsible for a site.
12	Customer Email Address	Varchar(320)	Conditional field – Required if it exists in the retailer’s record of the customer’s information. “Customer” refers to the person or legal entity responsible for a site.
13	Alternate Customer Last Name	Varchar(100)	Conditional field – Required if it exists in the retailer’s record of the customer’s information. Last name of an alternate contact. E.g., spouse, accounts payable, property manager contact person, etc.

Sequence	Field	Data type/size	Description
14	Alternate Customer First Name	Varchar(100)	Conditional field – Required if it exists in the retailer’s record of the customer’s information. First name of an alternate contact. E.g., spouse, accounts payable, property manager contact person, etc.
15	Alternate Customer Phone Number	Telephone Number Format	Conditional field – Required if it exists in the retailer’s record of the customer’s information and it is a telephone number in Canada or the United States. See section 8.4.6.2 for example.
16	Alternate Customer Email Address	Varchar(320)	Conditional field – Required if it exists in the retailer’s record of the customer’s information.
17	Mailing Address Unit Designator	Varchar(15)	Conditional field – Must be populated if it exists in the customer’s mailing address. Used to define individual units where no unit number exists, e.g., “Back,” “Basement.”
18	Mailing Address Unit Number	Varchar(6)	Conditional field – Must be populated if it exists in the customer’s mailing address. Apartment number, etc.
19	Mailing Address House Number	Varchar(6)	Conditional field – Must be populated if it exists in the customer’s mailing address.
20	Mailing Address Street Pre-Direction	Varchar(2)	Conditional field – Must be populated if it exists in the customer’s mailing address. Standard direction codes (N, W, SW, etc.) which appear in front of the Street Name, e.g., “W Georgia ST.”
21	Mailing Address Street Name	Varchar(50)	Conditional field – Must be populated if it exists in the customer’s mailing address.
22	Mailing Address Street Type Code	Varchar(8)	Conditional field – Must be populated if it exists in the customer’s mailing address. Valid Canada Post codes are required.
23	Mailing Address Street Direction	Varchar(2)	Conditional field – Must be populated if it exists in the customer’s mailing address. Standard direction codes (N, W, SW, etc.) which appear after the Street Name, e.g., “Millwoods RD W.”
24	Mailing Address City Quadrant	Varchar(2)	Conditional field – Must be populated if it exists in the customer’s mailing address. Standard direction codes (N, W, SW, etc.) which designate a quadrant of a city.
25	Mailing Address General Delivery Indicator	Char(1)	Conditional field – Must be populated if it exists in the customer’s mailing address. “Y” - means general delivery address, [null] if no general delivery address is used. Address is formatted as: “GD Drayton Valley AB TOE OMO.”
26	Mailing Address Lot ID	Varchar(10)	Conditional field – Must be populated if it exists in the customer’s mailing address. An example of this type of address: (54 is the Lot ID) “54 26540 Range Road 11 Red Deer County AB T4E 1A3.”
27	Mailing Address Pre-Road Number	Varchar(10)	Conditional field – Must be populated if it exists in the customer’s mailing address. Number that appears before the road type in the Canada Post road addressing guidelines (e.g., “26540” in the above example is the pre-road number).
28	Mailing Address Road Type	Varchar(20)	Conditional field – Must be populated if it exists in the customer’s mailing address. Road type in the Canada Post Addressing Guidelines e.g., Township Road = TWP RD, Highway = HWY, Range Road = Range RD (“Range Road” in the above example is the road type).
29	Mailing Address Post-Road Number	Varchar(10)	Conditional field – Must be populated if it exists in the customer’s mailing address. Number of the road that appears after the road type in the Canada Post road addressing guidelines (“11” in the above example is the Road Number).
30	Mailing Address Compartment	Varchar(10)	Conditional field – Must be populated if it exists in the customer’s mailing address. Number of the compartment to follow “COMP” in Canada Post Addressing Guidelines mailing address, e.g., “COMP 10 SITE 4 RR 3.”

Sequence	Field	Data type/size	Description
31	Mailing Address Site Number	Varchar(10)	Conditional field – Must be populated if it exists in the customer's mailing address. Number of the site to follow "SITE" in Canada Post Addressing Guidelines rural mailing address, e.g., "COMP 10 SITE 4 RR 3."
32	Mailing Address Rural Route	Varchar(10)	Conditional field – Must be populated if it exists in the customer's mailing address. Number of the rural route to follow "RR" in Canada Post Addressing Guidelines rural mailing address, e.g., "COMP 10 SITE 4 RR 3."
33	Mailing Address Mobile Route	Varchar (10)	Conditional field – Must be populated if it exists in the customer's mailing address. Number of the mobile route to follow "MR" in Canada Post Addressing Guidelines mailing address, e.g., "COMP 10 SITE 4 MR 3."
34	Mailing Address Suburban Service	Varchar(10)	Conditional field – Must be populated if it exists in the customer's mailing address. Number of the suburban service to follow "SS" in Canada Post Addressing Guidelines mailing address, e.g., "COMP 10 SITE 4 SS 3."
35	Mailing Address Station Name	Varchar(50)	Conditional field – Must be populated if it exists in the customer's mailing address. Name to follow "STN" in Canada Post Addressing Guidelines mailing address, e.g., "PO BOX 11223 STN MAIN Toronto ON."
36	Mailing Address Retail Postal Outlet	Varchar(50)	Conditional field – Must be populated if it exists in the customer's mailing address. Name of the retail postal outlet to follow "RPO" in Canada Post Addressing Guidelines mailing address, e.g., "PO BOX 123 RPO Standard Life Edmonton AB."
37	Mailing Address Post Office Box	Varchar(10)	Conditional field – Must be populated if it exists in the customer's mailing address. Number to follow "PO BOX" in Canada Post Addressing Guidelines mailing address, e.g., "PO BOX 11223 STN MAIN Toronto ON."
38	Mailing Address Letter Carrier Depot	Varchar(50)	Conditional field – Must be populated if it exists in the customer's mailing address. Name of the letter carrier depot to follow "LCD" in Canada Post Addressing Guidelines mailing address, e.g., "PO BOX 1352 LCD Blue Quill Edmonton AB."
39	Mailing Address City	Varchar(50)	Conditional field – Must be populated if it exists in the customer's mailing address. Name of the town or city.
40	Mailing Address Province / State Code	Char(2)	Conditional field – Must be populated if it exists in the customer's mailing address. Use standard two-character codes.
41	Mailing Address Postal Code/Zip Code	Varchar(9)	Conditional field – Must be populated if it exists in the customer's mailing address. Postal or zip code – nine characters allows for the largest possible zip code.
42	Mailing Address Country	Varchar(30)	Conditional field – Must be populated if it exists in the customer's mailing address and the mailing address is in the United States. Full country name in mailing address.
43	Foreign Mailing Address	Varchar(500)	Conditional field – Required if the customer's mailing address is outside Canada or United States.
44		[null]	Not used for gas.
45		[null]	Not used for gas.
46	Site Contact Last Name	Varchar(100)	Conditional field – Required if it exists in the retailer's record of the customer's information. Site contact is intended to mean the individual responsible for day-to-day functions at a site.
47	Site Contact First Name	Varchar(100)	Conditional field – Required if it exists in the retailer's record of the customer's information. Site contact is intended to mean the individual responsible for day-to-day functions at a site.
48	Site Contact Phone Number	Telephone Number Format	Conditional field – Required if it exists in the retailer's record of the customer's information. If the customer's site contact phone number is not different from the customer's phone number, then the number from the "Customer Phone Number" field should be repeated. Site contact is intended to mean the individual responsible for day-to-day functions at a site. A telephone number in Canada or the United States. See Section 8.4.6.2.

Sequence	Field	Data type/size	Description
49	Site Contact Email Address	Varchar(320)	Conditional field – Required if it exists in the retailer’s record of the customer’s information. If the customer’s site contact email address is not different from the customer’s email address, then the email address from the “Customer Email Address” field should be repeated. Site contact is intended to mean the individual responsible for day-to-day functions at a site.
50	Site Contact Alternate Last Name	Varchar(100)	Conditional field – Required if it exists in the retailer’s record of the customer’s information. Last name of an alternate site contact.
51	Site Contact Alternate First Name	Varchar(100)	Conditional field – Required if it exists in the retailer’s record of the customer’s information. First name of an alternate site contact.
52	Site Contact Alternate Phone Number	Telephone Number Format	Conditional field – Must be populated if it exists in the retailer’s record of the customer’s information and is a telephone number in Canada or the United States. See section 8.4.6.2 for example.
53	Site Contact Alternate Email Address	Varchar(320)	Conditional field – Must be populated if it exists in the retailer’s record of the customer’s information.
54	Transaction Status Code	Char(4)	Conditional field – If the transaction is being sent by the retailer, this field is [null]; otherwise this field is mandatory when a distributor is sending the transaction to notify the retailer of problems with the transaction. Applicable transaction status codes in Appendix A, Table A-8 must be used.

8.6.4.2 Request update to customer information transaction (RUC) — information requirements

- (1) The RUC may be sent by a distributor if the distributor suspects that the customer information for a specific site is not up to date, and the distributor is, therefore, requesting the retailer send a UCI.
- (2) The distributor must specify which site IDs require the new UCI. The retailer must respond within five business days of receiving the request by providing a new UCI or by contacting the distributor by email to advise that no new information is available.
- (3) Each distributor can send a maximum of 25 different RUCs per retailer each week.

Table 12. Request update to customer information transaction (RUC)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	“RUC”	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	Distributor ID	Distributor ID format	Mandatory field - Sender (distributor for the site). See Appendix A, Table A-3.
4	Retailer ID	Retailer ID format	Mandatory field – Recipient (retailer associated with the site).
5	Site ID	Site ID format	Mandatory field – Unique identifier representing a site. See Section 8.4.6.10.
6	First Incorrect Field	Number (3)	Mandatory field –Field, from UCI currently held by the distributor, which is incorrect or missing.
7	Second Incorrect Field	Number (3)	Optional field – Populated at sender’s discretion. Field, from UCI currently held by the distributor, which is incorrect or missing.

Sequence	Field	Data type/size	Description
8	Third Incorrect Field	Number (3)	Optional field – Populated at sender's discretion. Field, from UCI currently held by the distributor, which is incorrect or missing.
9	Fourth Incorrect Field	Number (3)	Optional field – Populated at sender's discretion. Field, from UCI currently held by the distributor, which is incorrect or missing.
10	Fifth Incorrect Field	Number (3)	Optional field – Populated at sender's discretion. Field, from UCI currently held by the distributor, which is incorrect or missing.
11	Transaction Status Code	Char(4)	Conditional Field – If the transaction is being sent by the distributor, this field is [null]; otherwise this field is mandatory when a retailer is sending the transaction to notify the distributor of problems with the transaction. Applicable transaction status codes in Appendix A, Table A-8 must be used.

8.6.5 Update site information transaction set

8.6.5.1 Site metering characteristics transaction (SMC) – information requirements

- (1) The SMC consists of site and metering information. If the site has more than one associated socket, a transaction will be sent for each socket. This transaction allows for different meters at the same site measuring different functions. The distributor sends the SMC to the retailer of record applicable on the effective date of the change to communicate the following changes:
 - (a) There has been a successful enrolment.
 - (b) The energized state has been changed (see Sequence 7).
 - (c) The metering configuration has been changed. This includes changes to:
 - (i) type of metering (cumulative or unmetered), (see Sequence 6) or
 - (ii) subtract metering (see Sequence 8).
- (2) When a change as described in Section 8.6.5.1(1) occurs, and the change continues past midnight, the purpose of the SMC is to report the characteristics as they exist as of the end of the day on which they change. No more than one SMC per site per effective date shall be sent each day.
- (3) If an SMC was sent with incorrect information in any of sequences 6, 7, 8 or 11, new SMCs will be sent to replace the SMC that contained the error and all subsequent SMCs. The Effective Date Time field in the corrected SMC will be populated with the actual date of the error. However, if the error occurred more than eight years ago, the distributor has the option of using the actual date of the error in the SMC or a deemed date eight years ago.
- (4) If an SMC was not sent as required under Section 8.6.5.1(1), the missing SMC will be sent and all subsequent SMCs will be replaced with new SMCs. The Effective Date Time field in the missing SMC will be populated with the actual date the change took effect. However, if the change took effect more than eight years ago, the distributor has the option of using the actual date of the error in the SMC or a deemed date eight years ago.
- (5) Changes to meter number, multiplier or last reading will be reported by way of the DCM.

Table 13. Site metering characteristics transaction (SMC)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"SMC"	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	Distributor ID	Distributor ID format	Mandatory field – Sender (distributor for the site). See Appendix A, Table A-3.
4	Retailer ID	Retailer ID format	Mandatory field – Recipient (retailer associated with the site).
5	Site ID	Site ID format	Mandatory field – Unique identifier representing a site. See Section 8.4.6.10.
6	Type of Metering	Char(1)	Mandatory field – The type of metering at the site. Values are: "C" – Cumulative "U" – Unmetered or not metered.
7	Energized Indicator	Char(1)	Mandatory field – Indicates the energization status of the site at the time of the effective date. Values are: "Y" – Energized "N" – De-energized.
8	Subtract Metering	Char(1)	Mandatory field – Indicates whether the site is subtract metered. Values are: "Y" – Yes "N" – No Must be "Y" if the site is metered in such a way that an additional correcting DCM usage value will be provided.
9	Loss Compensation	Char(1)	Mandatory field – Loss compensated is not used for gas ("N" for gas sites).
10	Socket ID	Socket ID format	Optional field – Populated at sender's discretion. See Section 8.4.6.11.
11	Effective Date Time	Date time format	Mandatory field – Effective date and time of a change as described in Section 8.6.5.1(1)(a), (b) or (c).
12	Meter Number	Varchar(20)	Conditional field – Meter number is required if a meter is measuring energy usage at the site; otherwise this field is [null].
13	Installation Multiplier	Number(14,9)	Conditional field – Includes all factors of the billing multiplier except heat value. Required if a meter is measuring energy usage at the site; otherwise this field is [null].
14	Number of Dials	Number(3)	Conditional field – Number of dials on the meter. Required if a meter is measuring energy usage at the site; otherwise this field is [null].
15	Decimal Positions	Number(1)	Conditional field – Number of the above dials which represent decimal positions. Required if a meter is measuring energy usage at the site; otherwise this field is [null].
16	Last Reading Date Time	Date time format	Conditional field – Date and time of the last actual meter reading. Required if a meter is measuring energy usage at the site. Exception: if it is a new site the field is [null].
17	Last Meter Dial Reading	Number(10)	Conditional field – Last actual meter reading. Required if a meter is measuring energy usage at the site. Exception: if it is a new site the field is [null].
18		[null]	Not used for gas.
19		[null]	Not used for gas.
20	Demand Meter Number	Varchar(20)	Conditional field – Meter number of the meter measuring demand. Required if a meter is measuring demand at the site.
21	Demand Installation Multiplier	Number(14,9)	Conditional field – Includes all factors of the billing multiplier except heat value. Required if a meter is measuring demand at the site.
22	Transaction Status Code	Char(4)	Conditional field – If the transaction is being sent by the distributor, this field is [null]; otherwise this field is mandatory when a retailer is sending the transaction to notify the distributor of problems with the transaction. Applicable transaction status codes in Appendix A, Table A-8 must be used.

8.6.5.2 Site profile change transaction (SPC) – information requirements

The LSA has the option of either issuing an SPC or sending an email to the retailer of record when there is a change in either profiling class or loss group code at a site. The LSA shall make a best effort to provide the notification in advance of the profile class change.

Table 14. Site profile change transaction (SPC)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	“SPC”	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	LSA ID	LSA ID format	Mandatory field – Sender (LSA responsible for settling the energy consumption within the zone). See Appendix A, Table A-4.
4	Retailer ID	Retailer ID format	Mandatory field – Recipient (retailer associated with the site).
5	Site ID	Site ID format	Mandatory field – Unique identifier representing a site. See Section 8.4.6.10.
6	Profiling Class	Varchar(20)	Mandatory field – Profiling class of the site.
7	Settlement Zone	Varchar(10)	Optional field – Populated at sender’s discretion. Settlement zone to which the site belongs.
8	Effective Date	Date format	Mandatory field – Date the new profiling class or loss group code becomes effective.
9	Transaction Status Code	Char(4)	Conditional field – If the transaction is being sent by the LSA, this field is [null]; otherwise this field is mandatory when a retailer is sending the transaction to notify the LSA of problems with the transaction. Applicable transaction status codes in Appendix A, Table A-8 must be used.

8.6.6 Energize/de-energize site

- (1) An energize request or a de-energize request is initiated by either the customer or the retailer to request energization or de-energization of a site. Whether initiated by the customer or the retailer, the retailer sends the transactions to the distributor to request the work to be completed. If the retailer is requesting energization of a site, the retailer sends an energize request transaction (ENR) to the distributor. If the retailer is requesting de-energization of a site, the retailer sends a de-energize request transaction (DER) to the distributor.
- (2) In response to the transactions, the distributor either completes the work and sends a completion transaction, or fails back the transaction with a failure transaction. If a retailer switch as described in Section 7.3 occurs in between the requesting transaction (i.e. ENR or DER) and the completion of the work, the distributor shall do the following:
 - (a) If the requesting transaction is an ENR, the distributor shall continue to proceed with completion of the energization and send an energize completion transaction (ENC) to the requesting retailer.
 - (b) If the requesting transaction is a DER, the distributor shall cancel the request, fail the order by sending a de-energize failure transaction (DEF) to the requesting retailer and populate the De-energize Failure Reason Code field with “0008” (invalid retailer ID for site).

8.6.6.1 Energize request transaction (ENR) — information requirements

For some distributors, energization also involves the relighting of natural gas appliances inside the property. In order to accommodate the relighting of natural gas

appliances in those cases, after the retailer sends the ENR, a customer may be required to call the distributor to make arrangements for access inside the property. In some cases, the meter may also have to be re-installed.

Table 15. Energize request transaction (ENR)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"ENR"	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	Retailer ID	Retailer ID format	Mandatory field – Sender (retailer associated with the site).
4	Business Function ID	Varchar(2)	Mandatory field – See Appendix A, Table A-2.
5	Distributor ID	Distributor ID format	Mandatory field – Recipient (distributor for the site). See Appendix A, Table A-3.
6	Site ID	Site ID format	Mandatory field – Site to energize. Unique identifier representing a site. See Section 8.4.6.10.
7	Priority Code	Number(1)	Optional field – Standard priority code representing the energize request urgency. Some distributors require access arrangements in order to energize the site. See Section 8.6.6.1.
8	Requested Energize Date	Date format	Optional field – Date the gas is to be turned on. See Section 8.6.6.1.
9	Contact Name	Varchar(100)	Mandatory field – The person to contact in the event of problems executing this request.
10	Contact Phone Number	Telephone number format	Mandatory field – The phone number of the contact person named in this transaction.
11	Message to Distributor	Varchar(160)	Optional field – Information to assist the distributor in executing this request.

8.6.6.2 Energize failure transaction (ENF) – content

Table 16. Energize failure transaction (ENF)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"ENF"	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	Distributor ID	Distributor ID format	Mandatory field – Sender (distributor for the site). See Appendix A, Table A-3.
4	Retailer ID	Retailer ID format	Mandatory field – Recipient (retailer associated with the site).
5	Site ID	Site ID format	Mandatory field – Site that could not be energized. Unique identifier representing a site. See Section 8.4.6.10.
6	Energize Failure Reason Code	Char(4)	Mandatory field – Reason why the energization was not successful. When using transaction status codes, the applicable codes in Appendix A, Table A-8 must be used.

8.6.6.3 Energize completion transaction (ENC) – content

Table 17. Energize completion transaction (ENC)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"ENC"	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.

Sequence	Field	Data type/size	Description
3	Distributor ID	Distributor ID format	Mandatory field – Sender (distributor for the site). See Appendix A, Table A-3.
4	Retailer ID	Retailer ID format	Mandatory field – Recipient (retailer associated with the site).
5	LSA ID	LSA ID Format	Mandatory field – Recipient (LSA responsible for settling the energy consumption within the zone). See Appendix A, Table A-4.
6	Site ID	Site ID format	Mandatory field – Site that was energized. Unique identifier representing a site. See Section 8.4.6.10.
7	Energized Date	Date time format	Mandatory field – Date the site was energized.

8.6.6.4 De-energize request transaction (DER) — information requirements

The DER is used by the retailer to request de-energization from the distributor. The distributor may require additional information from the retailer (e.g. customer letter) in support of the transaction. Some distributors do not accept a DER when a site is to be demolished or a meter is to be removed. In those cases, a customer is required to contact the distributor directly to make arrangements for demolition or meter removal. Upon completion of the equipment or line removal, the distributor will inform the retailer of the change in site status by sending an SMC as described in Section 8.6.5.1.

Table 18. De-energize request transaction (DER)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"DER"	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	Retailer ID	Retailer ID format	Mandatory field – Sender (retailer associated with the site).
4	Business Function ID	Varchar(2)	Mandatory field – See Appendix A, Table A-2.
5	Distributor ID	Distributor ID format	Mandatory field – Recipient (distributor for the site). See Appendix A, Table A-3.
6	Site ID	Site ID format	Mandatory field – Site to de-energize. Unique identifier representing a site. See Section 8.4.6.10.
7	Priority Code	Number(1)	Optional field – Standard priority code representing the energize request urgency. See Section 8.6.6.4(1).
8	Requested De-energize Date	Date format	Optional field – Date the gas is to be turned off.
9	Contact name	Varchar(100)	Mandatory field – The person to contact in the event of problems executing this request.
10	Contact phone number	Telephone number format	Mandatory field – The phone number of the contact person named in this transaction.
11	De-energize Reason	Number(4)	Mandatory field – Reasons for de-energize: "0001" – Customer request "0002" – Cut-off for nonpayment "0005" – Seasonal shut off "0006" – Vacant premises.
12	Message to Distributor	Varchar(160)	Optional field – Information may be required to assist the distributor in executing this request. See Section 8.6.6.4.

8.6.6.5 De-energize failure transaction (DEF) — content

Table 19. De-energize failure transaction (DEF)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"DEF"	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	Distributor ID	Distributor ID format	Mandatory field – Sender (distributor for the site). See Appendix A, Table A-3.
4	Retailer ID	Retailer ID format	Mandatory field – Recipient (retailer associated with the site).
5	Business Function ID	Varchar(2)	Optional field – Populated at sender's discretion. See Appendix A, Table A-2.
6	Site ID	Site ID format	Mandatory field – Site that could not be de-energized. Unique identifier representing a site. See Section 8.4.6.10.
7	De-energize Failure Reason Code	Char(4)	Mandatory field – Reason why the de-energize did not succeed. When using transaction status codes, the applicable codes in Appendix A, Table A-8 must be used.
8	Other Failure Description	Varchar(80)	Optional field – Descriptive reason why the de-energize failed.

8.6.6.6 De-energize completion transaction (DEC) — content

Table 20. De-energize completion transaction (DEC)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"DEC"	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	Distributor ID	Distributor ID format	Mandatory field – Sender (distributor for the site). See Appendix A, Table A-3.
4	Retailer ID	Retailer ID format	Mandatory field – Recipient (retailer associated with the site).
5	Business Function ID	Varchar(2)	Optional field – Populated at sender's discretion. See Appendix A, Table A-2.
6	Site ID	Site ID format	Mandatory field – Site that was de-energized. Unique identifier representing a site. See Section 8.4.6.10.
7	De-energized Date and Time	Date time format	Mandatory field – Date the site was de-energized.

8.6.6.7 Release cut-off for nonpayment (CONP) lock transaction (RCL) — information requirements

- (1) For those distributors that lock a site after performing a de-energize that was requested by a retailer for reason of nonpayment (CONP), thereby preventing another retailer from energizing the site until the first retailer receives payment, the RCL is sent to the gas distributor by the retailer that originally requested the de-energize, to request the distributor now release the CONP lock.
- (2) The RCL is to be sent by the retailer who issued the DER when collection action has been completed or cancelled. The RCL is required within a short time after collection action has been ended.

Table 21. Release CONP lock transaction (RCL)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"RCL"	Mandatory field – Abbreviation for the transaction name.

2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	Retailer ID	Retailer ID format	Mandatory field – Sender (retailer associated with the site).
4	Business Function ID	Varchar(2)	Optional field – Populated at sender's discretion. See Appendix A, Table A-2.
5	Distributor ID	Distributor ID format	Mandatory field – Recipient (distributor for the site). See Appendix A, Table A-3.
6	Site ID	Site ID format	Mandatory field – Site for which CONP lock release is requested. Unique identifier representing a site. See Section 8.4.6.10.

8.6.6.8 Release CONP lock completion transaction (RCC) – information requirements

- (1) In response to receipt of an RCL, the distributor will unlock the site to allow the retailer of record to authorize an energize request and send the retailer that originally issued the DER an RCC.

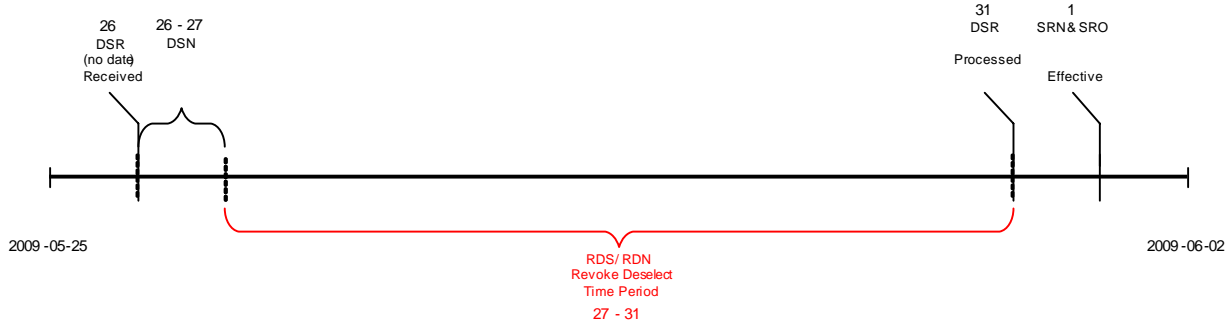
Table 22. Release CONP lock completion transaction (RCC)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"RCC"	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	Distributor ID	Distributor ID format	Mandatory field – Sender (distributor for the site). See Appendix A, Table A-3.
4	Retailer ID	Retailer ID format	Mandatory field – Recipient (retailer associated with the site).
5	Site ID	Site ID format	Mandatory field – Site which needs lock removed. Unique identifier representing a site. See Section 8.4.6.10.
6	Completion Flag	Char(1)	Mandatory field – Values are: "Y" – CONP lock is removed "N" – CONP lock is not removed.
7	CONP Lock Remove Date	Date time format	Mandatory field – Date and time CONP lock was removed.
8	Failure Reason Code	Char(4)	Conditional field – Required if the RCL fails. Reason why the CONP lock was not removed. When using transaction status codes, the applicable codes in Appendix A, Table A-8 must be used.

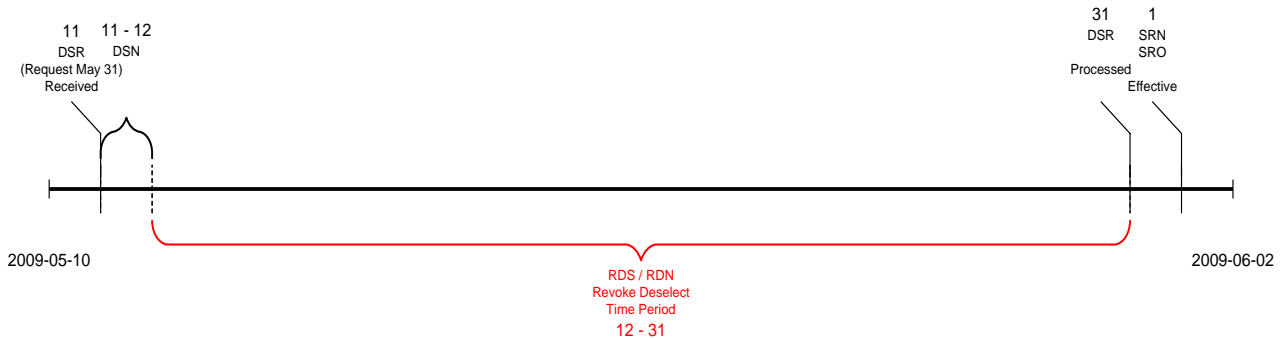
8.6.7 De-select retailer transaction set

Figure 1. Timelines for de-select retailer transaction set

De-select retailer transaction (DSR) with no request date that is sent and received on May 26:



DSR with request date May 31 that is sent and received on May 11:



8.6.7.1 De-select request transaction (DSR) – information requirements

- (1) The DSR enables a retailer to notify a distributor that they will no longer provide gas services for the site.
- (2) The DSR will be processed effective on the date in the Requested De-select Date field of the DSR unless the site is enrolled earlier by another retailer or the current retailer revokes the de-select request before the site is switched to the default supply provider.
- (3) The site will be switched to the default supply provider upon the expiry of the date (i.e., 23:59:59) in the Requested De-select Date field in the DSR or the deemed date if the de-select date is [null] i.e., enrolment requests from the default supply provider are deemed to have been received at the expiry of the date.
- (4) The distributor will accept a DSR and the requested de-select date will be deemed to be five calendar days from the day the DSR was received if the Requested De-select Date field is [null].
- (5) The distributor will accept a DSR and default the date to five calendar days from the transaction receipt where the date in Requested De-select Date field in the DSR is less than five days from the date the DSR is received by the distributor.
- (6) The date in the Requested De-select Date field (if populated) must be no greater than 60 calendar days from the date the DSR is received by the distributor.

- (7) The retailer must include a de-select reason code in the De-select Reasons field of the DSR.
- (8) The De-select Reasons field shall be populated with “0001” only in situations where there was not an erroneous enrolment (as defined in Section 7.3(7)) and the customer consuming natural gas at the site has physically moved or will be physically moving to another site.
- (9) The De-select Reasons field shall be populated with “0002” only in situations where there was not an erroneous enrolment (as defined in Section 7.3(7)) and the retailer no longer wishes to have the customer enrolled or a customer no longer wishes to be served by the retailer. When sending a DSR containing “0002” in the De-select Reasons field, the retailer must send an UCI transaction (as per UCI Section 8.6.4). The distributor must transfer the UCI customer information to the default supply provider for the site. The distributor may reject a de-enrolment if an UCI is not received. A de-enrolment may not be rejected on the basis of a failed UCI. The distributor’s validation process for de-enrolment may only include that a populated UCI was received. If the UCI in question is rejected by the distributor, the retailer must send a corrected UCI within one business day.
- (10) The De-select Reasons field shall be populated with “0003” only in situations where there was an erroneous enrolment (as defined in Section 7.3(7)). When receiving a DSR containing “0003” in the De-select Reasons field, the distributor shall notify the LSA and the LSA shall perform the actions in accordance with Section 7.3(7).

Table 23. De-select retailer transaction (DSR)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	“DSR”	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	Retailer ID	Retailer ID format	Mandatory field – Sender (retailer associated with the site).
4	Distributor ID	Distributor ID format	Mandatory field – Recipient (distributor for the site). See Appendix A, Table A-3.
5	Site ID	Site ID format	Mandatory field – Site to de-select. Unique identifier representing a site. See Section 8.4.6.10.
6	Requested De-select Date	Date	Optional field – Date the site is to be de-selected.
7	De-select Reasons	Varchar(4)	Mandatory field – Reason for the DSR: “0001” – Customer moving out (as per Section 8.6.7.1(8)) “0002” – Retailer drops customer (as per Section 8.6.7.1(9)) “0003” – Erroneous enrolment (as per Section 8.6.7.1(10))

8.6.7.2 De-select notification transaction (DSN) – information requirements

The distributor will send a DSN of acceptance or rejection of the DSR that the distributor received.

Table 24. De-select notification transaction (DSN)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"DSN"	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	Distributor ID	Distributor ID format	Mandatory field – Sender (distributor for the site). See Appendix A, Table A-3.
4	Retailer ID	Retailer ID format	Mandatory field – Recipient (retailer associated with the site).
5	MDM ID	MDM ID format	Mandatory field – Recipient (MDM responsible for reading the meter). See Appendix A, Table A-5.
6	LSA ID	LSA ID format	Mandatory field – Recipient (LSA responsible for settling the energy consumption within a zone). See Appendix A, Table A-4.
7	Site ID	Site ID format	Mandatory field – Site to de-select. Unique identifier representing a site. See Section 8.4.6.10.
8	De-select Notification Code	Varchar(4)	Mandatory field – Reason the DSR was confirmed or rejected. When using transaction status codes, the applicable codes in Appendix A, Table A-8 must be used.

8.6.7.3 Revoke de-select request transaction (RDS) – information requirements

The distributor will process and accept an RDS from a retailer where the retailer is still the current retailer of record of the site and the current retailer has sent a successful DSR as confirmed by the DSN.

Table 25. Revoke de-select request transaction (RDS)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"RDS"	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	Retailer ID	Retailer ID format	Mandatory field – Sender (retailer associated with the site).
4	Business Function ID	Varchar(2)	Mandatory field – See Appendix A, Table A-2.
5	Distributor ID	Distributor ID format	Mandatory field – Recipient (distributor for the site). See Appendix A, Table A-3.
6	Site ID	Site ID format	Mandatory field – Site for which to revoke the DSR. Unique identifier representing a site. See Section 8.4.6.10.

8.6.7.4 Revoke de-select notification transaction (RDN) – information requirements

The distributor will send an RDN of acceptance or rejection for each RDS that the distributor received.

Table 26. Revoke de-select notification transaction (RDN)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"RDN"	Mandatory field – Abbreviation for the transaction name
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	Distributor ID	Distributor ID format	Mandatory field – Sender (distributor for the site). See Appendix A, Table A-3.
4	Retailer ID	Retailer ID format	Mandatory field – Recipient (retailer associated with the site).
5	Business Function ID	Varchar(2)	Optional field – Populated at sender's discretion. See Appendix A, Table A-2.

Sequence	Field	Data type/size	Description
6	MDM ID	MDM ID format	Mandatory field – Recipient (MDM responsible for reading the meter). See Appendix A, Table A-5.
7	LSA ID	LSA ID format	Mandatory field – Recipient (LSA responsible for settling the energy consumption within the zone). See Appendix A, Table A-4.
8	Site ID	Site ID format	Mandatory field – Site to de-select. Unique identifier representing a site. See Section 8.4.6.10.
9	Revoke De-select Notification Code	Varchar(4)	Mandatory field – Reason the RDS was confirmed or rejected. When using transaction status codes, the applicable transaction status codes listed in Appendix A, Table A-8 must be used.

8.6.8 Request off-cycle meter read transaction set

- (1) If a customer or retailer requires a meter read off cycle, the retailer sends the request off-cycle meter read transaction (ROR) to the distributor who then notifies the MDM to obtain the read.
- (2) If the MDM obtains the read, the MDM provides a DCM to the distributor, the LSA and the retailer. The distributor provides a request off-cycle meter read completion transaction (ROC) to the retailer and populates the Completion Flag field with “Y” (off-cycle reading obtained).
- (3) If the MDM cannot obtain the read, the distributor issues an ROC to the retailer and populates the Completion Flag field with “N” (off-cycle reading not obtained).
- (4) If a retailer switch as described in Section 7.3 occurs after the retailer sends the ROR but before the MDM obtains the read, the distributor shall not cancel the read request. When the read is obtained by the MDM, the distributor shall send the ROC to the retailer that sent the ROR and shall populate the Requested Off-Cycle Read Date field with the date the read was obtained.

8.6.8.1 Request off-cycle meter read transaction (ROR) – content

Table 27. Request off-cycle meter read transaction (ROR)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	“ROR”	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	Retailer ID	Retailer ID format	Mandatory field – Sender (retailer associated with the site).
4	Business Function ID	Varchar(2)	Mandatory field – See Appendix A, Table A-2.
5	Distributor ID	Distributor ID format	Mandatory field – Recipient (distributor for the site). See Appendix A, Table A-3.
6	Site ID	Site ID format	Mandatory field – Site to perform off-cycle meter read. Unique identifier representing a site. See Section 8.4.6.10.
7	Priority Code	Number(1)	Optional field – Standard priority code representing the off-cycle meter read request urgency. Some distributors require access arrangements in order to obtain an off-cycle meter read at the site.
8	Requested Off-cycle Read Date	Date Format	Optional field – Date the meter is requested to be read. Is optional if the priority code is used.
9	Meter Access Instructions	Varchar(80)	Optional field – Instructions on how to access the meter, or warnings (e.g. “Dog,” “See Manager,” “Careful,” “Knock and wait”).

8.6.8.2 Request off-cycle meter read completion transaction (ROC) – content

Table 28. Request off-cycle meter read completion transaction (ROC)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"ROC"	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	Retailer ID	Retailer ID format	Mandatory field – Recipient (retailer associated with the site).
4	Distributor ID	Distributor ID format	Mandatory field – Sender (distributor for the site). See Appendix A, Table A-3.
5	Site ID	Site ID format	Mandatory field – Site to perform off-cycle meter read. Unique identifier representing a site. See Section 8.4.6.10.
6	Completion Flag	Char(1)	Mandatory field – Indicates whether the off-cycle reading was obtained. Values are: "Y" – Off-cycle reading obtained "N" – Off-cycle reading was not obtained.
7	Off-cycle Incomplete Reason	Varchar(80)	Conditional field – If completion flag = "N," this field is mandatory; otherwise this field is [null].
8	Off-cycle Read Date	Date time format	Conditional field – If completion flag = "Y," this field is mandatory and shall be populated with the date the meter is read; otherwise this field is [null].

8.7 Transaction with standard content

The following transaction does not require electronic transmittal.

8.7.1 Revoke de-energize request transaction (RDR) – information requirements

The RDR is a request and has no performance or time certainty. The distributor may not be capable of recalling or cancelling the de-energization of the site.

Table 29. Revoke de-energize request transaction (RDR)

Sequence	Field	Data type/size	Description
1	Transaction Abbreviation	"RDR"	Mandatory field – Abbreviation for the transaction name.
2	Transaction Date Time	Date time format	Mandatory field – Later of the time the transaction was created or last modified.
3	Retailer ID	Retailer ID format	Mandatory field – Sender (retailer associated with the site).
4	Business Function ID	Varchar(2)	Mandatory field – See Appendix A, Table A-2.
5	Distributor ID	Distributor ID format	Mandatory field – Recipient (distributor for the site). See Appendix A, Table A-3.
6	Site ID	Site ID format	Mandatory field – Site to revoke de-energize. Unique identifier representing a site. See Section 8.4.6.10.

8.8 Transaction status codes

After a recipient receives a transaction, the recipient may screen the transaction for errors in the content or format of the transaction itself. The notification to the sender of the error status of the transaction should use whichever of the status codes in Table A-8, Settlement code transaction status codes, in Appendix A are appropriate for the error identified.

9 Performance standards for meter data managers operating in the province of Alberta

9.1 Overview

The purpose of this section is to define the responsibilities and performance standards for MDMs within the province of Alberta.

9.2 Roles and responsibilities

- (1) The MDM is the entity responsible for collecting meter data, validating and correcting meter data, storing historic data and reporting data to required parties.
- (2) Accountability for accuracy of meter data shall be the responsibility of one and only one entity. Accountabilities are as follows:
 - (a) A distributor is responsible for providing a meter and all meter-related services, including the function of MDM.
 - (b) The distributor may make arrangements under which other parties perform any or all of the functions of the MDM if the arrangements do not diminish or remove the responsibility or liability of the distributor for carrying out those functions.

9.3 Cumulative meter data performance standards

The following section of the MDM performance standards deals with cumulative meters that are defined as per Industry Canada approved devices that measure and register the integral of gas quantity with respect to time. This section is also applicable to virtual metering points that are effective points of measurement that may or may not be physically locatable. Virtual metering points are the calculated values based on two or more cumulative meters.

9.3.1 Data collection

9.3.1.1 Definition of approved meter reads

An approved meter read shall be defined as any one of the four options shown below:

- (1) A physical on-site meter read obtained and validated by the MDM responsible for reading the meter.
- (2) A remote meter read performed by an automated meter reading system (AMR).
- (3) A meter read obtained by the customer and validated by the distributor.
- (4) Estimates for sites with specific conditions as specified in Section 9.3.2.2(3).

9.3.1.2 Data collection elements

As a minimum, the data captured or verified during the data collection process must contain the following data elements:

- (1) Meter number.
- (2) Date of meter read.
- (3) Reading for all valid registers from the meter.

9.3.2 Validation of meter data

9.3.2.1 Validation tests

The MDM shall validate all cumulative meters using the following validation tests. If the metering data passes the validation tests, the data shall be considered settlement ready and shall be provided to the designated parties as per Section 9.3.4. Metering data that fails one or more validation tests shall be verified by the MDM as specified in Section 9.3.2.2(1).

Table 30. Cumulative metering validation tests

Check	Test	Description	Pass/fail criteria
Meter number	Compare meter number with expected meter number for site.	Meter number must match expected meter number.	Pass: meter number = expected meter number Fail: meter number \neq expected meter number
Number of dials	Compare the number of digits on meter reading with expected number of digits for meter.	The number of digits in meter reading must be equivalent to the number of digits or dials on the meter display.	Pass: no. of digits = expected no. of dials Fail: no. of digits \neq expected no. dials
High and low usage	Compare actual usage with historical usage (for energy meters only).	MDMs will continue to use their current high/low validation routines. These routines shall be published and made available to the market.	Pass: low limit < usage < high limit Fail: low limit > usage > high limit
High and low demand	Compare average demand with historical demand (for demand meters only).	MDMs will continue to use their current high/low validation routines. These routines shall be published and made available to the market.	Pass: low limit < demand < high limit Fail: low limit > demand > high limit

9.3.2.2 Verification, editing and estimation of data

(1) Verification of data

- (a) If the meter reading fails one or more validation tests, the MDM shall verify the validity of the test failure.
- (b) If the MDM determines that the meter data is valid, then the original meter reading shall be considered settlement ready and shall be provided as a verified and edited (VE) meter reading in the DCM.
- (c) If the MDM determines that the data is invalid, then the MDM shall discard the failed data.

(2) Editing of data (data replacement)

- (a) If a previously submitted meter reading is subsequently found by the MDM to be suspect, the MDM shall submit cancellation DCM(s) for the suspect meter reading as soon as reasonably possible.
- (b) If the cancellation DCM causes the condition where there is no reported meter reading for the past two months, then the MDM shall provide replacement data for the cancellation DCM as soon as is practicable but

in no circumstances greater than 20 business days from the date of the cancellation DCM.

(3) Estimation of data

(a) Estimation of meter reading data shall take place only in these circumstances:

(i) where a meter has failed and the meter reading cannot be obtained by any means

(ii) where energy diversion or theft has occurred

(iii) in the event that a meter read cannot be obtained at the time that the site was energized or de-energized

(b) Under the circumstances specified in (a), the MDM shall provide a site-specific estimate of actual usage for the period from the last validated meter reading to a current date. The data shall be reported as estimated (“ES”) meter reading in the DCM.

9.3.2.3 Investigation and notification

(1) If a meter is found to be suspect as a result of the data verification, editing and estimation process, the MDM shall notify the owner of the meter within one business day.

(2) The owner of the meter shall be responsible for replacing or repairing the defective meter within 20 business days from the day of notification from the MDM of a suspect cumulative meter.

9.3.3 Data storage

In addition to requirement outlined in the *Electricity and Gas Inspection Regulations*, the MDM shall store all original meter readings, validation results, estimated readings, issued DCMs and cancelled DCMs for a period of at least 24 months from the last data revision date.

9.3.4 Data provision

(1) The MDM shall provide settlement-ready data in DCM records, as specified in Section 8.6.1.1, to the LSA and to retailers, no later than the eighth business day from the date of the meter read.

(2) The MDM shall ensure that reporting of DCM data for a site will not generate date overlaps or leave date gaps with previously reported DCMs for that site. That is, for any valid site, the energy flow for any past single day must be accounted for in the effective time interval (as calculated from the difference between the Current Reading Date Time field and the Last Reading Date Time field) of one and only one DCM.

(3) The reporting date in the DCM Current Reading Date Time field shall be the date the meter was actually read. If the Current Meter Dial Reading field is the same as the Last Meter Dial Reading field contained in a DCM (i.e. zero consumption), the Current Reading Date Time field may be deemed to be any date that is between the current reading date and the last reading date.

- (4) The reporting time in the DCM Current Reading Date Time field may, at the option of the MDM, be reported as actual meter read time or a consistently deemed meter read time between 00:00:00 and 23:59:59.

10 Settlement performance reporting

10.1 Reporting requirements

On a monthly basis the LSA will make the following reports available to the natural gas market participants and to the AUC.

10.2 Site DCM information

Each month the LSA will complete the table below related to site DCM information for each profiling class for each settlement run for each zone. For example the statistics reported for the settlement month of January would be reported in February (S1), March (S2) and May (S3).

Table 31. Site DCM information

Profiling class	Average # sites without DCM	Average per cent sites without DCM	Average GJ consumption without DCM	Average per cent consumption without DCM
Profiling Class 1				
Profiling Class 2				
Profiling Class 3				
Etc.				
Total system				

10.3 Settlement accuracy at final settlement

Each month the LSA will complete the table below related to settlement accuracy for each zone. Specifically, comparisons between final settlement (S3) and backcast (B1), initial monthly settlement (S1) and interim settlement (S2) will be provided. For example, the January Settlement Month statistics would be reported in May.

Table 32. Settlement accuracy at final settlement

Profiling Class	Mean absolute deviation (GJ)	Mean absolute per cent error (%)
Profiling Class 1		
Profiling Class 2		
Profiling Class 3		
Etc.		
Total system		

10.4 System information

System information relates to the gas receipts and gas deliveries for the gas distribution system in total for each zone. The LSA will provide an estimate of total system receipts for each day in the settlement month and final settlement of the total system gas consumption will be provided at the time retailer final settlement (S3) is issued. For example, the statistics reported in the month of January would be for the settlement month of September. The

annual system data used to derive unaccounted-for gas will be provided at the time of the unaccounted-for gas recovery rider application (per Section 4.1).

Table 33. System information

	System receipt (GJ)	Final settlement (S3) system data (GJ)
Day 1		
Day 2		
Day 3		
Etc.		

Appendix A

Supplementary Tables

Appendix A – Supplementary tables

The intent of this appendix is to facilitate any table revisions outside of the standard AUC rule-making process. In general, table revisions contemplated are those that would have little impact to natural gas market participants. Should table revisions be needed, the Commission will issue a bulletin notifying natural gas market participants.

Table A-1 Business function ID

Code	Meaning
DE	Default supply provider
RE	Competitive retailer
SR	Self retailer

Table A-2 Distributor ID

A four-digit number uniquely represents each distributor operating within Alberta.

Distributor ID	Name of distributor	Active	Expiry
0001	ATCO Gas North	Jan 01, 2001	Jan 01, 2099
0003	ATCO Gas South	Jan 01, 2001	Jan 01, 2099
0007	AltaGas Utilities Inc.	Jan 01, 2001	Jan 01, 2099

Table A-3 Load settlement agent (LSA) ID

A four-digit number uniquely represents each load settlement agent (LSA) operating within Alberta.

LSA ID	Settlement zone	LSA name	Active	Expiry
1001	ATCO Gas North and ATCO Gas South	ATCO Gas	Jan 01, 2001	Dec 31, 2099
1007	AltaGas Utilities Inc.	AltaGas Utilities Inc.	Jan 01, 2001	Dec 31, 2099

Table A-4 Meter data manager (MDM) ID

A four-digit number uniquely represents each meter data management company operating within Alberta.

MDM ID	MDM name	Active	Expiry
2001	ATCO	Jan 01, 2001	Dec 31, 2099
2007	AltaGas Utilities Inc.	Jan 01, 2001	Dec 31, 2099

Table A-5 Zone ID

A four-digit number that uniquely represents each gas distribution zone. The ID is assigned by the LSA.

Zone ID	Zone name	Active	Expiry
0101	ATCO Gas North distribution zone	Jan 01, 2001	Dec 31, 2099
0103	ATCO Gas South distribution zone	Jan 01, 2001	Dec 31, 2099
2601	AltaGas Utilities Inc.	Jan 01, 2001	Dec 31, 2099

Table A-6 DCM status flag codes

The following data status flag codes are mandatory for inclusion with all DCMs:

Code	Meaning
ME	Passed the MDM's validation tests
VE	Failed the MDM's validation tests, but passed verification process
ES	Estimated

Table A-7 Settlement code transaction status codes

Natural gas market participants' systems must only use NGSSC status codes related to the specific transaction(s) they are linked to. Transaction status code "0027" (Other - call distributor for details) should not be used in place of any of the listed transaction status codes unless no suitable code is found.

Universal transaction status codes

Status code	Description	Transaction	Sender	Recipient
0000	Transaction successful	All	Distributor, LSA, MDM	Retailer
0001	Invalid transaction abbreviation	All	Distributor, LSA, MDM	Retailer
0002	Invalid date time format	All	Distributor, LSA, MDM	Retailer

Enrolment/de-enrolment transaction status codes

Status code	Description	Transaction	Sender	Recipient
0005	Invalid retailer ID	SRN, DSN,RDN	Distributor, LSA	Retailer
0006	Invalid retailer ID – not eligible for new switches	SRN	LSA	Retailer
0007	Invalid retailer ID – not valid for this distributor	SRN	LSA	Retailer
0008	Invalid retailer ID for site	SRN, DSN, RDN	Distributor	Retailer
0011	Invalid distributor ID	DSN,RDN	Distributor	Retailer
0012	Invalid distributor ID for site	DSN,RDN	Distributor	Retailer
0013	Invalid site ID	SRN, DSN,RDN	Distributor, LSA	Retailer
0014	Site already enrolled with this retailer	SRN	LSA	Retailer
0015	Site ID has been removed from the site catalogue	SRN, DSN,RDN	Distributor, LSA	Retailer
0016	Site not allowed to switch	SRN	LSA	Retailer
0017	Switch has already been processed for site	SRN	LSA	Retailer
0018	Invalid priority code	SRN	LSA	Retailer
0021	Transaction Status Code field must be blank	SRN	LSA	Retailer
0022	Business Function ID field must be blank	SRN, DSN, RDN	Distributor, LSA	Retailer
0024	Invalid number of fields in the transaction	SRN, DSN, RDN	Distributor, LSA	Retailer
0026	Invalid business function ID	SRN,RDN	Distributor, LSA	Retailer
0027	Other – call distributor for details	SRN, DSN, RDN	Distributor, LSA	Retailer
0051	Valid update customer information not received	SRN, DSN	Distributor, LSA	Retailer
0190	Retailer Account Number field too long	SRN	LSA	Retailer
0191	Retailer Reference Number field too long	SRN	LSA	Retailer
0198	Requested de-select date greater than 60 days	DSN	LSA	Retailer
0200	Invalid de-select reason	DSN	LSA	Retailer
0201	Invalid requested de-select date - format, length	DSN	LSA	Retailer

Status code	Description	Transaction	Sender	Recipient
0202	Already de-selected	DSN	LSA	Retailer
0551	Profiling Class field invalid – format, length, missing	SRN	LSA	Retailer
1002	Loss Group Code field invalid – format, length, missing	SRN	LSA	Retailer
1003	Enrolment Notification Code field invalid – format, length, missing	SRN	LSA	Retailer
1004	Retailer Account Number field invalid – format, length	SRN	LSA	Retailer
1005	Energized Indicator field invalid – format, length	SRN	LSA	Retailer
1052	Switch Date field invalid – format, length	SRN	LSA	Retailer
1209	De-select not requested	RDN	Distributor	Retailer
1230	De-select cancellation too late	RDN	Distributor	Retailer
1231	De-select not in progress	RDN	Distributor	Retailer
8518	Pending enrolment already exists for site	RDN	Distributor	Retailer
8719	Invalid retailer certification level for transaction	SRN	Distributor	Retailer
8720	Site is not enrollable	SRN	Distributor	Retailer

MDM transaction status codes

Status code	Description	Transaction	Sender	Recipient
0003	Invalid MDM ID	DCM	MDM	Retailer, distributor
0004	Invalid MDM ID for site	DCM	MDM	Retailer, distributor
0005	Invalid retailer ID	DCM	MDM	Retailer, distributor
0008	Invalid retailer ID for site	DCM	MDM	Retailer, distributor
0009	Invalid LSA ID	DCM	MDM	Retailer, distributor
0013	Invalid site ID	DCM	MDM	Retailer, distributor
0020	Invalid socket ID	DCM	MDM	Retailer, distributor
0021	Transaction Status Code field must be blank	DCM	MDM	Retailer, distributor
0022	Business function ID field must be blank	DCM	MDM	Retailer, distributor
0024	Invalid number of fields in the transaction	DCM	MDM	Retailer, distributor
0026	Invalid business function ID	DCM	MDM	Retailer, distributor
0196	Invalid meter information	DCM	MDM	Retailer, distributor
0501	Meter Number field invalid – format, length	DCM	MDM	Retailer, distributor
0504	Measured Demand field invalid - format, length, missing	DCM	MDM	Retailer, distributor
0505	Last Reading Date Time field invalid – format, length	DCM	MDM	Retailer, distributor
0506	Current Reading Date Time field invalid – format, length	DCM	MDM	Retailer, distributor
0507	Last Meter Dial Reading field invalid – format, length	DCM	MDM	Retailer, distributor

Status code	Description	Transaction	Sender	Recipient
0508	Current Meter Dial Reading field invalid – format, length	DCM	MDM	Retailer, distributor
0511	Billing Multiplier field invalid - format, length, missing	DCM	MDM	Retailer, distributor
0515	Record Status field invalid – format, length	DCM	MDM	Retailer, distributor
0516	Cumulative meter read to be cancelled does not exist	DCM	MDM	Retailer, distributor
0517	Fields differ from original meter read, cancel aborted	DCM	MDM	Retailer, distributor
0518	Use of one of the meter read dates would create an overlap	DCM	MDM	Retailer, distributor
0519	Records with a “CA” status encountered after regular reads, cancel aborted	DCM	MDM	Retailer, distributor
0520	Meter read values and consumption cannot be negative	DCM	MDM	Retailer, distributor
0561	Demand Status field invalid – format, length	DCM	MDM	Retailer, distributor
0562	Consumption Status field invalid – format, length	DCM	MDM	Retailer, distributor

Distributor transaction status codes

Status code	Description	Transaction	Sender	Recipient
0005	Invalid retailer ID	DEF, ENF	Distributor	Retailer
0008	Invalid retailer ID for site	DEF, ENF	Distributor	Retailer
0011	Invalid distributor ID	DEF, ENF	Distributor	Retailer
0013	Invalid site ID	DEF, ENF	Distributor	Retailer
0018	Invalid priority code	DEF, ENF	Distributor	Retailer
0024	Invalid number of fields in the transaction	DEF, ENF	Distributor	Retailer
0026	Invalid business function ID	DEF, ENF	Distributor	Retailer
0027	Other – call distributor for details	DEF, ENF	Distributor	Retailer
1200	Already de-energized	DEF	Distributor	Retailer
1201	Requested De-energize Date field invalid – format, length, missing	DEF	Distributor	Retailer
1202	Requested De-energize Reason Code field invalid – format, length, missing	DEF	Distributor	Retailer
1203	Already energized	ENF	Distributor	Retailer
1204	Requested Energize Date field invalid – format, length, missing	ENF	Distributor	Retailer
1205	Distributor does not have infrastructure/not ready	ENF	Distributor	Retailer
1206	De-energize not requested	RDR	Distributor	Retailer
1208	Requested Off-cycle Read Date field invalid – format, length, missing	ROC	Distributor	Retailer
1210	Customer – access refused	DEF, ENF	Distributor	Retailer
1212	Contact name missing or incorrect	DEF, ENF	Distributor	Retailer
1213	Contact phone number missing or invalid	DEF, ENF	Distributor	Retailer
1215	Request date cannot be in the past	DEF, ENF	Distributor	Retailer
1216	Incorrect premises	DEF, ENF	Distributor	Retailer
1217	Distributor – no access to site	DEF, ENF	Distributor	Retailer
1218	No longer required	DEF, ENF	Distributor	Retailer
1220	Site locked for CONP	ENF	Distributor	Retailer
1221	Work volume exceeded	DEF	Distributor	Retailer
1222	Customer safety/critical impact to customer	DEF, ENF	Distributor	Retailer
1223	Customer not moving	DEF	Distributor	Retailer

Status code	Description	Transaction	Sender	Recipient
1225	More than one customer affected	DEF	Distributor	Retailer
1226	New customer	DEF	Distributor	Retailer
1304	Customer construction not completed	ENF	Distributor	Retailer
1306	Meter base or meter socket issue/damage	ENF	Distributor	Retailer
1317	Duplicate work order request	DEF, ENF	Distributor	Retailer
1323	Seasonal/temperature disconnect policy in place	DEF	Distributor	Retailer
1401	Temperature outside limits	DEF	Distributor	Retailer
1402	Disconnect warning notice left at site	DEF	Distributor	Retailer
8701	Message to distributor is too long	DEF, ENF	Distributor	Retailer
8755	Tampering	ENF	Distributor	Retailer
8760	Distributor safety	DEF, ENF	Distributor	Retailer
8763	CONP – paid, receipt shown	DEF	Distributor	Retailer
8764	Wrong de-energize reason code received	DEF	Distributor	Retailer

UCI transaction status codes - customer information

Status code	Description	Transaction	Sender	Recipient
0061	Customer first and last names not allowed with customer company name	UCI	Retailer	Distributor
0062	Customer Company Name field too long	UCI	Retailer	Distributor
0063	Customer first name required	UCI	Retailer	Distributor
0064	Customer First Name field too long	UCI	Retailer	Distributor
0065	Customer last name required	UCI	Retailer	Distributor
0066	Customer Last Name field too long	UCI	Retailer	Distributor
0068	Customer name required	UCI	Retailer	Distributor
0069	Mailing Address City is required	UCI	Retailer	Distributor
0070	Mailing Address City field too long	UCI	Retailer	Distributor
0071	Invalid mailing address city quadrant	UCI	Retailer	Distributor
0072	Mailing Address Compartment field too long	UCI	Retailer	Distributor
0073	Mailing address country is required	UCI	Retailer	Distributor
0074	Invalid mailing address country	UCI	Retailer	Distributor
0075	Customer mailing address required	UCI	Retailer	Distributor
0076	Invalid mailing address combination	UCI	Retailer	Distributor
0080	Foreign Mailing Address field too long	UCI	Retailer	Distributor
0084	Invalid mailing address general delivery indicator	UCI	Retailer	Distributor
0085	Mailing Address House Number field too long	UCI	Retailer	Distributor
0086	Mailing address house number required	UCI	Retailer	Distributor
0087	Mailing Address Letter Carrier Depot field too long	UCI	Retailer	Distributor
0088	Mailing Address Lot ID field too long	UCI	Retailer	Distributor
0089	Mailing Address Mobile Route field too long	UCI	Retailer	Distributor
0090	Mailing Address Post Office Box field too long	UCI	Retailer	Distributor
0091	Mailing Address Post-Road Number field too long	UCI	Retailer	Distributor
0092	Mailing address post-road number required	UCI	Retailer	Distributor
0093	Invalid mailing address postal code/ zip code format	UCI	Retailer	Distributor
0094	Mailing Address Pre-Road Number field too long	UCI	Retailer	Distributor
0095	Mailing address pre-road number required	UCI	Retailer	Distributor
0096	Invalid mailing address Province / State Code	UCI	Retailer	Distributor
0097	Mailing address Province / State Code is required	UCI	Retailer	Distributor

Status code	Description	Transaction	Sender	Recipient
0098	Mailing Address Retail Postal Outlet field too long	UCI	Retailer	Distributor
0099	Invalid mailing address road type	UCI	Retailer	Distributor
0100	Mailing address road type required	UCI	Retailer	Distributor
0101	Mailing Address Rural Route field too long	UCI	Retailer	Distributor
0102	Mailing Address Site Number field too long	UCI	Retailer	Distributor
0103	Mailing address site number is only valid when used in combination with a rural route	UCI	Retailer	Distributor
0104	Mailing Address Station Name field too long	UCI	Retailer	Distributor
0105	Invalid mailing address street direction code	UCI	Retailer	Distributor
0106	Mailing Address Street Name field too long	UCI	Retailer	Distributor
0107	Mailing address street name required	UCI	Retailer	Distributor
0108	Invalid mailing address street pre-direction code	UCI	Retailer	Distributor
0109	Invalid mailing address street type code	UCI	Retailer	Distributor
0110	Mailing address street type code required	UCI	Retailer	Distributor
0111	Mailing Address Suburban Service field too long	UCI	Retailer	Distributor
0112	Invalid mailing address unit designator	UCI	Retailer	Distributor
0113	Mailing address unit designator not allowed with mailing address unit number	UCI	Retailer	Distributor
0114	Mailing Address Unit Number field too long	UCI	Retailer	Distributor
0115	Customer Email Address field too long	UCI	Retailer	Distributor
0119	Invalid customer phone number	UCI	Retailer	Distributor
0196	Operating as field too long	UCI	Retailer	Distributor
0197	Alternate Customer Last Name field too long	UCI	Retailer	Distributor
0198	Alternate Customer First Name field too long	UCI	Retailer	Distributor
0199	Invalid alternate customer phone number	UCI	Retailer	Distributor
0200	Alternate Customer Email Address field too long	UCI	Retailer	Distributor
0201	Mailing Address Unit Designator field too long	UCI	Retailer	Distributor
0202	Mailing Address Street Pre-Direction field too long	UCI	Retailer	Distributor
0203	Mailing Address Street Type Code field too long	UCI	Retailer	Distributor
0204	Mailing Address Street Direction field too long	UCI	Retailer	Distributor
0205	Mailing Address Road Type field too long	UCI	Retailer	Distributor

UCI transaction status codes - site contact information

Status code	Description	Transaction	Sender	Recipient
0122	Site Contact First Name field too long	UCI	Retailer	Distributor
0123	Site contact first name required	UCI	Retailer	Distributor
0124	Site Contact Last Name field too long	UCI	Retailer	Distributor
0125	Site contact last name required	UCI	Retailer	Distributor
0127	Site contact name is required	UCI	Retailer	Distributor
0128	Site Contact Email Address field too long	UCI	Retailer	Distributor
0132	Invalid site contact phone number	UCI	Retailer	Distributor
0206	Site Contact Alternate First Name field too long	UCI	Retailer	Distributor
0207	Site contact alternate first name required	UCI	Retailer	Distributor
0208	Site Contact Alternate Last Name field too long	UCI	Retailer	Distributor
0209	Site contact alternate last name required	UCI	Retailer	Distributor
0210	Site Contact Alternate Email Address field too long	UCI	Retailer	Distributor

Status code	Description	Transaction	Sender	Recipient
0211	Invalid site contact alternate phone number	UCI	Retailer	Distributor

UCI transaction status codes - general information

Status code	Description	Transaction	Sender	Recipient
0008	Invalid retailer ID for site	UCI	Retailer	Distributor
0013	Invalid site ID	UCI	Retailer	Distributor
0053	Customer c/o or Attention field too long	UCI	Retailer	Distributor
0212	Invalid Distributor ID	UCI	Retailer	Distributor

Table A-8 Transactions timing table

The following table details the timing of the transactions.

Process (could involve other transactions)	Transaction	Input from (data source)	Output to (i.e. LSA, MDM, retailer, etc.)	Work completion to notification delay (maximum)
Select Retailer Request	SRR	New retailer	LSA	Refer to Section 7.3
Select Retailer Notification	SRN	LSA	New retailer	Refer to Section 7.3
Notify Old Retailer	SRO	LSA	Old retailer	Refer to Section 7.3
Update Customer Information	UCI	Retailer	Distributor	Refer to Section 8.6.4.1
Request Update Customer Information	RUC	Distributor	Retailer	Refer to Section 8.6.4.2
Energize Request	ENR	Retailer	Distributor	
Energize Failure	ENF	Distributor	Retailer	5 business days
Energize Completion	ENC	Distributor	Retailer, MDM, LSA	5 business days
De-energize Request	DER	Retailer	Distributor	
De-energize Failure	DEF	Distributor	Retailer	5 business days
De-energize Completion	DEC	Distributor	Retailer, MDM, LSA	5 business days
Request Off-cycle Meter Read	ROR	Retailer	Distributor	
Request Off-cycle Meter Read Completion	ROC	Distributor	Retailer	5 business days
Revoke De-energize Request	RDR	Retailer	Distributor	

Process (could involve other transactions)	Transaction	Input from (data source)	Output to (i.e. LSA, MDM, retailer, etc.)	Work completion to notification delay (maximum)
De-select Request	DSR	Retailer	Distributor	Refer to Section 8.6.7 Figure 1
De-select Notification	DSN	Distributor	LSA, MDM, retailer	Refer to Section 8.6.7 Figure 1
Revoke De-select Request	RDS	Retailer	Distributor	Refer to Section 8.6.7 Figure 1
Revoke De-select Notification	RDN	Distributor	Retailer	Refer to Section 8.6.7 Figure 1
Site Metering Characteristics	SMC	Distributor	Retailer	5 business days
Site Profile Change	SPC	LSA	Retailer	5 business days
Daily Cumulative Meter Consumption	DCM	MDM	LSA, distributor, retailer	Refer to Section 9.3.4
Wholesale Settlement Information	WSI	LSA	Retailer	Refer to Section 4.3
Wholesale Settlement Summary	WSS	LSA	Retailer	Refer to Section 4.3
Wholesale Settlement Details	WSD	LSA	Retailer	Refer to Section 4.3
Settlement Profile Value	SPV	LSA	All retailers	Refer to Section 4.3

Appendix B

Transaction Transport Mechanism - VLTrader

Appendix B – Transaction transport mechanism - VLTrader

The current transport mechanism for exchanging transactions is VLTrader. A complete description of the version, standards, roles, responsibilities and guidelines required to exchange transactions can be found on the AUC website.

B-1 VLTrader software upgrades

When coordinated deployment of a VLTrader upgrade or release proves necessary, the AUC will coordinate with market participants.

B-2 VLTrader outage communication

- (1) When a market participant has identified that its VLTrader cannot connect to another participant, the participant identifying the problem should contact the other market participant to which connection cannot be made and inform that participant of the VLTrader connection failure.
- (2) Whichever market participant is experiencing a VLTrader outage must inform all other impacted market participants of the VLTrader outage.
 - (a) The following information shall be included in the VLTrader outage notification:
 - (i) VLTrader outage start date and time and expected end date and time
 - (ii) description of the VLTrader outage
 - (iii) actions required by the connecting parties during or after the VLTrader outage
 - (iv) contact person or group for questions or concerns
- (3) Changes to VLTrader outage duration shall be communicated and, if the length of the VLTrader outage is unknown, regular updates about the outage shall be sent.
- (4) During a VLTrader outage market participants should repeat connection attempts for sending and receiving files until connection is restored. Market participants that do not continue to attempt connection risk their transactions being processed late.