

# Rule 004

## Alberta Tariff Billing Code Rules

This rule as amended was approved by the Alberta Utilities Commission on December 21, 2017, and is effective January 1, 2018.

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### Update: Version 2.2

This document can be referred to as version 2.2 of AUC Rule 004: *Alberta Tariff Billing Code Rules* (Rule 004). Rule 004 is an operational document that defines the business processes and mechanics of how timely and accurate tariff bill-ready information is to be produced and transmitted to retailers by electricity and natural gas distributors for distribution and system access service in Alberta. The rule also defines how retailers must operate to facilitate the transmittal of tariff bill-ready information.

A consultative process is used to identify improvements and revisions that need to be made to Rule 004 to keep the rule relevant and reflective of the requirements of the retail electricity and natural gas market. AUC staff incorporates recommended changes into a draft version of a revised Rule 004. 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 004 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 General provisions

### 1.1 Application

- (1) This rule sets out the minimum obligations an owner of an electric distribution system, as defined in the *Electric Utilities Act*, or a gas distributor, as defined in the *Gas Utilities Act*, must meet to provide timely and accurate tariff bill-ready information to retailers and to its regulated rate provider, as defined in the *Electric Utilities Act*, or its default supply provider, as defined in the *Gas Utilities Act*, for distribution and system access service.
- (2) When an owner of an electric distribution system is also acting as the regulated rate provider, adherence to the provisions of this rule is not required for transactions between the owner of an electric distribution system as distributor and an owner of an electric distribution system as regulated rate provider. When a gas distributor is also acting as the default supply provider, adherence to the provisions of this rule is not required for transactions between the gas distributor as distributor and gas distributor as default supply provider.
- (3) A regulated rate provider that is authorized by an owner of an electric distribution system or a default supply provider that is authorized by a gas distributor is required to comply with the provisions in this rule.
- (4) A retailer, as defined in the *Electric Utilities Act* or in the *Gas Utilities Act*, is not required to comply with the provisions in this rule. However, prior to the Commission investigating any complaint from a retailer concerning the performance of a distributor under this rule, the retailer must demonstrate its compliance in accepting and exchanging tariff bill-ready information in the format set out in this rule.
- (5) The provisions of this rule do not apply when a distributor invoices a customer directly pursuant to Section 3 of the *Billing Regulation, 2003* or Section 3 of the *Natural Gas Billing Regulation*.

### 1.2 Definitions

In this rule,

- (a) “bill ready” means that a retailer is provided with all the necessary distribution and transmission tariff data elements and charges required to assemble the customer’s bill, with no additional calculations required other than tax calculations and optional charge aggregation
- (b) “billing cycle” means the distributor-specific code to which a collection of sites are assigned to, for the purposes of obtaining metering information

spanning an interval of time (usually 27 to 35 days) to support the presentation of distributor tariff charges in a tariff bill file

- (c) “business day” has the meaning ascribed to the term “business day” as defined in the independent system operator rules and as shown on the independent system operator’s (ISO) stakeholder calendar posted on the ISO’s website ([www.aeso.ca](http://www.aeso.ca))
- (d) “charge period” means a span of time delimiting the tariff charges in the tariff bill file; the charge period is limited by charge period events or tariff bill period events
- (e) “charge period event” means a tariff billing event that splits a charge period
- (f) “Commission” means the Alberta Utilities Commission
- (g) “current billing period” means the actual span of time elapsed from the day following the end date of the last published tariff bill period up to and including the effective date of a tariff bill file event; the current billing period is composed of one or more tariff bill periods
- (h) “customer” has the meaning ascribed to the term “customer” in the *Electric Utilities Act* and in the *Gas Utilities Act*
- (i) “customer bill” means an invoice presented to a customer reflecting tariff and energy charges
- (j) “DCM ” means the daily cumulative meter consumption to retailers and LSA transaction as defined in AUC Rule 021: *Settlement System Code Rules* and the daily cumulative meter consumption transaction defined in AUC Rule 028: *Natural Gas Settlement System Code Rules*
- (k) “demand” means the maximum amount of energy in kilowatts (kW), kilovolt-amperes (kVA) or gigajoules (GJ) used at a given instance for electricity or within 24 hours for gas within a billing period; demand is usually presented as actual metered peak demand for a defined period, demand ratchet based on a defined percentage of historic peak demand, and contract or rate minimum demand
- (l) “DIM” means the daily interval meter readings to retailers and LSA transaction as defined in AUC Rule 021: *Settlement System Code Rules*
- (m) “distributor” means a gas distributor, as defined in the *Gas Utilities Act*, or an owner of an electric distribution system, as defined in the *Electric Utilities Act*

- (n) “distributor invoice” means an invoice issued by a distributor to a specific retailer representing tariff charges for distribution and system access services
- (o) “elapsed business day” means a period established from a point in time during a business day to that same point in time in the next business day (e.g. 2 p.m. Friday to 2 p.m. Monday)
- (p) “exception” means the detection of a potential error by a retailer in the distributor tariff billing that requires the attention of the retailer and distributor to resolve
- (q) “file” means a set of records containing tariff billing information in the format specified in Section 4 of this rule
- (r) “gap”, in respect of the tariff billing period structure, means the end date of one period and the start date of the subsequent period are not sequential
- (s) “idle” in respect of a site, means a de-energized site with no usage in a tariff bill period but for which tariff charges apply
- (t) “ISO rules” means the rules made by the ISO under Section 19 or Section 20 of the *Electric Utilities Act*
- (u) “market participant” includes “market participants” as defined in the *Electric Utilities Act* and “natural gas market participants” as defined in the *Alberta Utilities Commission Act*
- (v) “meter” has the meaning ascribed to the term “meter” in the *Electric Utilities Act*
- (w) “meter data manager” has the meaning ascribed to the term “meter data manager” in AUC Rule 021: *Settlement System Code Rules* and in AUC Rule 028: *Natural Gas Settlement System Code Rules*
- (x) “metering data” has the meaning ascribed to the term “metering data” in AUC Rule 021: *Settlement System Code Rules*
- (y) “off-cycle tariff charges” means the production and presentation of tariff charges for a specific site prior to a site’s scheduled billing cycle
- (z) “other validation tests” means validation tests, other than the standard file format and standard file content validation tests outlined in this rule, that a distributor or retailer may perform, at their discretion, to validate the reasonableness of data included in a tariff bill file
- (aa) “overlap” in respect of the tariff billing period structure, means the end date of one period is later than the start date of the subsequent period



- (bb) “power factor” means the power actually used by a customer, the real power (expressed in kW), as a ratio of the power that is apparently being delivered, the apparent power (expressed kVA); the difference is attributable to the characteristics of a customer’s load, which uses more apparent power to operate
- (cc) “provincial carbon levy” as of January 1, 2017, is applied to all fuels that emit greenhouse gases when combusted, including natural gas, subject to certain exemptions pursuant to the *Climate Leadership Act*. More information can be found on the Government of Alberta website ([www.alberta.ca](http://www.alberta.ca))
- (dd) “record” means a sequence of information in the format specified in Section 4 of this rule
- (ee) “regulated service provider” means a regulated rate provider under the *Electric Utilities Act* or a default supply provider under the *Gas Utilities Act*
- (ff) “retailer” includes retailers as defined in the *Electric Utilities Act*, retailers as defined in the *Gas Utilities Act*, regulated service providers as defined above, self-retailers and billing agents
- (gg) “retailer of record” has the meaning ascribed to the term “retailer of record” in AUC Rule 021: *Settlement System Code Rules* and in AUC Rule 028: *Natural Gas Settlement System Code Rules*
- (hh) “Rule 004” means AUC Rule 004: *Alberta Tariff Billing Code Rules*
- (ii) “Rule 021” means AUC Rule 021: *Settlement System Code Rules*
- (jj) “Rule 028” means AUC Rule 028: *Natural Gas Settlement System Code Rules*
- (kk) “rural electrification association” has the meaning ascribed to the term “rural electrification association” in the *Electric Utilities Act*
- (ll) “scheduled billing period” means the timeframe between a scheduled meter reading or usage estimate production dates as set out by the meter data manager or distributor
- (mm) “scheduled read date” means the date upon which a particular distributor’s meter is scheduled to be read
- (nn) “scheduled tariff bill file publish date” means the specific date upon which a distributor is obligated to release a tariff bill file to retailers
- (oo) “service area” has the meaning ascribed to the term in the *Hydro and Electric Energy Act*

- (pp) “site” has the meaning ascribed to the term “site” in AUC Rule 021: *Settlement System Code Rules* and in AUC Rule 028: *Natural Gas Settlement System Code Rules*
- (qq) “SRN ” means the select retailer notification transaction as defined in AUC Rule 021: *Settlement System Code Rules* and in AUC Rule 028: *Natural Gas Settlement System Code Rules*
- (rr) “SRO ” means the notify old retailer transaction as defined in AUC Rule 021: *Settlement System Code Rules* and in AUC Rule 028: *Natural Gas Settlement System Code Rules*
- (ss) “standard file content validation test” means the process of validating the content of tariff billing data as contained within the tariff bill file, including file integrity checks, expected field values and cross field edits
- (tt) “standard file format validation test” means the process of validating the format of the physical attributes of the tariff bill file, including field attributes and required field population
- (uu) “standard transaction transport method” is the transaction transport method specified in AUC Rule 021: *Settlement System Code Rules* and in AUC Rule 028: *Natural Gas Settlement System Code Rules*
- (vv) “system access service” has the meaning ascribed to the term “system access service” in the *Electric Utilities Act*
- (ww) “tariff bill file dispute” means a single reported incidence of a tariff bill period or one-time charge content exception within a tariff bill file
- (xx) “tariff bill file event” means a tariff billing event that triggers the production of a tariff bill file or the inclusion of a site in a tariff bill file
- (yy) “tariff bill file rejection” means a reported incident of a tariff bill file standard file format validation test failure
- (zz) “tariff billing event” means any event that occurs during a scheduled billing period for a specific site that may result in the inclusion of that site in a tariff bill file or result in a split in one or more periods within the tariff bill period structure for that site
- (aaa) “tariff bill period” means the span of time bound by tariff billing events within which tariff charges are presented for a site
- (bbb) “tariff bill period event” means a tariff billing event that splits a tariff bill period

- (ccc) “tariff charge” is the physical representation of a charge component multiplied by a time factor (if applicable) and by a charge component unit price as published in the distributor’s tariff
- (ddd) “transmission-connected site” has the meaning ascribed to it in AUC Rule 021: *Settlement System Code Rules*
- (eee) “UCI” means the update customer information transaction as defined in AUC Rule 021: *Settlement System Code Rules* and in AUC Rule 028: *Natural Gas Settlement System Code Rules*
- (fff) “usage” means the consumption in kilowatt hours (kWh) or gigajoules (GJ) used by the customer during a period as measured by the meter and with multipliers applied or as estimated by a distributor for billing purposes
- (ggg) “usage period” means a period of time expressed in terms of whole days dictated by usage period events but bound by the start and end date of an associated tariff bill period
- (hhh) “usage period event” means a tariff billing event that splits a usage period
- (iii) “WSD” means the wholesale settlement details for retailer own sites transaction as defined in AUC Rule 021: *Settlement System Code Rules* and the wholesale settlement details transaction as defined in AUC Rule 028: *Natural Gas Settlement System Code Rules*

### 1.3 Common abbreviations

<b>AESO</b>	Alberta Electric System Operator
<b>AUC</b>	Alberta Utilities Commission
<b>BFLAG</b>	Boolean flag
<b>CLE</b>	provincial carbon levy exempt transaction
<b>CLN</b>	provincial carbon levy exempt notification transaction
<b>CSA</b>	customer switch advice transaction
<b>CSR</b>	customer switch receipt transaction
<b>CSV</b>	comma-separated values format
<b>CT</b>	current transformer
<b>CTF</b>	component type code file
<b>DCM</b>	daily cumulative meter consumption to retailers and LSA transaction
<b>DIM</b>	daily interval meter readings to retailers and LSA transaction
<b>FTP</b>	file transfer protocol
<b>GJ</b>	gigajoule
<b>GST</b>	goods and services tax
<b>ID</b>	identifier
<b>ISO</b>	independent system operator
<b>kVA</b>	kilo-volt-ampere
<b>kW</b>	kilowatt
<b>kWh</b>	kilowatt hour

<b>LSA</b>	load settlement agent
<b>MDF</b>	miscellaneous determinant code file
<b>MDM</b>	meter data manager
<b>MID</b>	municipality ID file
<b>OCF</b>	one-time charge code file
<b>PDF</b>	portable document format
<b>PPAC</b>	prior period adjustment code
<b>PT</b>	potential transformer
<b>RCF</b>	REA code file
<b>REA</b>	rural electrification association
<b>RSP</b>	regulated service provider
<b>RRT</b>	regulated rate tariff
<b>SCC</b>	site cycle change transaction
<b>SCF</b>	site cycle catalogue file
<b>SRN</b>	select retailer notification transaction
<b>SRO</b>	notify old retailer transaction
<b>SRR</b>	select retailer request transaction
<b>TBA</b>	tariff bill accept transaction
<b>TBD</b>	tariff bill dispute transaction
<b>TBF</b>	tariff bill file
<b>TBI</b>	tariff bill invoice
<b>TBR</b>	tariff bill reject transaction
<b>TCF</b>	tariff calendar file
<b>TRC</b>	tariff rate code file
<b>TRF</b>	tariff cross-reference code file
<b>TRN</b>	tariff bill rejection notification transaction
<b>TSW</b>	tariff billing sites withheld transaction
<b>UCI</b>	update customer information transaction
<b>UOM</b>	unit of measure
<b>WSD</b>	wholesale settlement detail for retailers own sites transaction

## 2 Summary of Rule 004 obligations

### 2.1 Communicate with market participants

The following section identifies the requirements related to communication between one or more market participants. The method of communication, except where noted, shall be at the sole discretion of the communicator.

#### 2.1.1 Distributor-initiated communication

- (1) Distributors are obligated to communicate the following to the Commission:
  - (a) Their rule compliance plan and self-certification statement as prescribed in Section 6.1 and Section 7 of this rule, respectively.
  - (b) Their current operating practices as they relate to the following:
    - (i) Their usage estimation methodology and tolerance thresholds and any changes to these since last communicated to the Commission.
    - (ii) Their process for attributing time to usage transactions (in particular with respect to events such as meter changes or upgrades) and how this is reported as whole days for billing purposes.
    - (iii) Their process for adjusting tariff charges that were originally based on estimated usage following receipt of measured usage.
    - (iv) Their process for archiving and retrieval of historical data.
  - (c) Standard codes relevant to a distributor's presentation of tariff bill-ready charges as set out in Appendix A.
  - (d) The changes to REA codes relevant to the distributor's service territory as set out in Appendix A.

Information communicated to the Commission will be made publicly available via the Commission's website ([www.auc.ab.ca](http://www.auc.ab.ca)).

- (2) Distributors are obligated to communicate the following to retailers:
  - (a) Changes to the tariff bill calendar file within the timeframe prescribed in Table 2-1.

- (b) Restatement of tariff charges as a result of unexpected metering or billing errors.
- (c) Exact location of the tariff bill calendar and site cycle catalogue files on their website, as well as any additional information necessary to enable download of these files.
- (d) Inability to produce a tariff bill file as per their published tariff bill calendar file.
- (e) Changes to site cycle assignments forecasted to affect the lesser of three per cent or 1,000 sites within an electric distributor's territory in a billing month within the timeframe prescribed in Table 2-1.
- (f) Changes to site cycle assignments to affect every site within a gas distributor's territory that changes billing cycles.

#### 2.1.2 Retailer-initiated communication

- (1) RSPs are obligated to communicate the following to the Commission:
  - (a) Their rule compliance plan and self-certification statements as prescribed in Section 6.1 and Section 7 of this rule, respectively.
  - (b) Their process for producing customer bills in the event that a distributor does not present tariff charges.
- (2) RSPs are obligated to communicate the following to distributors:
  - (a) Advance notice of pending changes in their regulated rate tariff within the timeframe prescribed in Table 2-1 of this rule.

#### 2.1.3 Commission-initiated communication

- (1) The Commission is responsible for communicating the following to distributors and retailers:
  - (a) Changes to standard codes relevant to a distributor's presentation of tariff billing information.
  - (b) Changes to distributor operating practices.
  - (c) Changes to Municipality ID information.
  - (d) Changes to REA Code information.

## 2.2 Understand published tariffs

- (1) It is the retailer of record's responsibility to be familiar with the published tariffs of each applicable distributor. In situations where a retailer receives charges from a distributor that are not included in the distributor's published tariffs, the retailer must use its own discretion in presenting these charges to its customers.
- (2) In order to provide assistance to their customers, retailers of record must also be familiar with the structure of the published tariffs of each applicable distributor and with the procedures by which tariff charges are calculated in respect of a site. In circumstances where insufficient tariff information is available to address customer concerns, a retailer may request additional information from the distributor.
- (3) The information exchange mechanisms outlined in this rule are intended to support customer billing in terms of charge and charge determinant detail but are not intended to fully explain the basis for the tariff charges. While most charge determinant detail is self-explanatory, there are specific charges that will require application of provided determinants within the tariff bill file against the published tariff structure. Retailers will remain the primary point of contact to respond to inquiries and complaints from their customers about distribution services.

## 2.3 Publish and maintain tariff bill calendar

- (1) Distributors shall retain sole control of meter reading routes and tariff billing schedules, and they reserve the right to modify these routes and schedules from time to time.
- (2) A standardized tariff bill calendar file and site cycle catalogue file must be published on the respective distributor's external website to advise retailers of scheduled tariff bill file publish dates and site assignments.<sup>1</sup> In the absence of a market transaction to notify retailers of updates to the tariff bill calendar or site cycle catalogue files, distributors are required to update these files on the frequency prescribed in Table 2-1.

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<sup>1</sup> Distributors must make the tariff bill calendar file and site cycle catalogue file available on their respective websites for automated download (i.e. via FTP) by retailers, and must provide retailers with the information necessary to download this information. Distributors may, at their discretion, transmit these files to retailers via the industry standard transport method.

## 2.4 Provision of usage information

- (1) A distributor must report site usage in the tariff bill file by tariff bill period. Tariff bill file usage periods should align with scheduled billing periods and tariff bill periods and must be reconcilable to periodic usage presented in metering transactions.
- (2) Where metering data that spans the current billing period is not available, usage information will be estimated by site and reported as such in the tariff bill file. Distributors may employ their unique methods for estimating usage for the purpose of tariff billing but must file their estimation methodology and validation thresholds with the Commission.
- (3) Where usage reflects metering data, distributors are obligated to validate usage according to the validation, estimation and editing procedures prescribed in Rule 021 and Rule 028. In the case of estimated usage, distributors are obligated to validate usage according to the usage estimation validation thresholds filed with the Commission.
- (4) The stated obligation to provide usage information in the tariff bill file does not affect a distributor's obligation to report cumulative, interval and unmetered usage as stipulated in Rule 021 and Rule 028.

## 2.5 Determine tariff charges

For each site in the distributor's service area, the distributor must calculate tariff charges, as well as applicable one-time charges, according to its Commission-approved and published tariff.

## 2.6 Full-day billing

To comply with the tariff bill file standards, distributors must present their tariff charges and usage information in terms of whole days, in accordance with the processes that they have filed with the Commission. The consequence of this obligation is that only one tariff rate code per site may be presented in a full day.

## 2.7 Presentation of dates

In the production and presentation of the tariff bill file and associated transactions, data is disclosed according to date ranges. To comply with the tariff bill file standards, in all cases the start and end dates must be expressed as inclusive.

## 2.8 Validate at source

Distributors are obligated to validate tariff bill files according to the standard file format and file content validation tests prescribed within this rule, as well as



perform other file validation tests, prior to the transmission of tariff bill files to retailers. Distributors are to withhold, in whole or in part, tariff bill files until these files pass the required validation tests.

## 2.9 Present tariff charges to retailers

- (1) Tariff charges must be tied to scheduled billing periods and sent to retailers according to the distributor's published tariff bill calendar, except in the case of off-cycle billing or sites withheld from presentation due to standard file format and file content validation tests or other distributor validation test failures.
- (2) When metering data that spans the current billing period is not available, tariff charges will be presented in a tariff bill file according to the file format specified within this rule on or before the scheduled tariff bill file publish date based on estimated usage.
- (3) In the case that metering data for a particular site is available but failed meter data manager validation (see Section 10 of Rule 021 or Section 9 of Rule 028), that particular site will be included in a tariff bill file on the scheduled tariff bill file publish date and reflect estimated usage for that site.
- (4) Tariff charges must be presented according to the tariff bill file production rules, as outlined in this rule, to distinguish current billing period charges from prior period billing adjustments.

## 2.10 Present tariff charges on customer bills

In fulfilling their billing obligation under the *Electric Utilities Act* or *Gas Utilities Act*, retailers that carry out the function of an RSP under the Commission's jurisdiction are obligated to validate tariff bill files according to the standard file format and file content validation tests prescribed within this rule, as well as perform other validation tests. Following tariff bill file validation, retailers are obligated to mediate any validation failures prior to presenting tariff charges on a customer bill.

## 2.11 Link tariff billing to distributor invoicing

- (1) Prior to finalizing tariff charges on a distributor's invoice, a distributor must provide time, as prescribed in Table 2-1 of this rule, to enable a retailer to take receipt of a tariff bill file, perform standard file format validation tests and notify the distributor of test results. Upon receipt of notification from a retailer transmitting a tariff bill accept (TBA) transaction or a tariff bill reject (TBR) transaction, or the expiry of the prescribed timeframe, a distributor is obligated to fulfill its processing

responsibilities as prescribed in Section 3.1 of this rule. If the distributor receives notification of positive test results, does not receive negative test results within the prescribed timeframe as stated in Table 2-1 of this rule or determines that negative test results are invalid, the distributor may proceed with distributor invoicing.

- (2) To enable retailers to perform reconciliation between tariff billing and distributor invoice processing, a distributor must include in its distributor invoice a unique identifier for the invoice (e.g. invoice number), as well as a cross-reference to the tariff bill files (e.g. Record ID of Tariff File Header record) relating to that invoice. Tariff charges not attributable to a site, or in cases where the current retailer was not the retailer of record for the period of time in which the charges occurred, will not be included in a tariff bill file and will be presented as a separate charge, accompanied by supporting detail, in the distributor's invoice or in another invoice. A tariff bill file is limited to one retailer and may only contain information for the periods when the recipient retailer is the retailer of record.
- (3) Distributor invoices must use "TBI" as the three-letter abbreviation for the transaction name, and the file must be in portable document format (PDF), not comma-separated values format (CSV), and must be electronically searchable using optical character recognition (OCR) technology. The distributor invoice must be sent to the retailer via the standard transaction transport method for electronic data exchange for the electric and gas utility industry.

## 2.12 Adjust tariff charges based on usage estimates

Following a period where tariff charges were based on estimated usage (other than usage estimates provided by the meter data manager function as per Section 10 of Rule 021 or Section 9 of Rule 028) and actual usage is available, a distributor may provide corrected charges based on actual usage. A distributor may apply a net correction or cancel and rebill approach based on its current operating practices. Each distributor must, however, file its approach for correcting usage estimates following receipt of actual usage information with the Commission.

## 2.13 Monitor performance

The market participants to whom this rule applies (see Section 1.1) are required to structure their tariff billing processes and systems in a manner that allows them to achieve the time-based performance requirements outlined in Table 2-1.

Table 2-1. Performance requirements

Table Ref ID	Requirement	Measure	Responsibility	Target
1a	Tariff bill file publication timing	For all sites other than transmission-connected sites: number of days between the scheduled read date and the scheduled tariff bill file published date for a billing cycle, as stated in the tariff bill calendar file.	Distributor	Maximum: six business days
1b	Tariff bill file publication timing	For transmission-connected sites: time limit to transmit a transmission-connected site's charges.	Electric Distributor	Maximum: last calendar day of the month following the charge period
2	Off-cycle billing timing	Number of days between the effective timing of an off-cycle tariff bill file event for a site and the inclusion of that site in a tariff bill file.	Distributor	Maximum: six business days
3	Standard file format validation timing	Number of business days following receipt of a tariff bill file to complete standard file format validation tests and transmit a TBA or TBR transaction.	Retailer	Maximum: one elapsed business day
4	File rejection response timing	Number of business days following receipt of a TBR transaction to transmit a TRN (accept or reject) transaction.	Distributor	Maximum: one elapsed business day
5	File rejection resolution timing	Number of business days following transmittal of a TRN (accept) transaction to transmit a replacement tariff bill file.	Distributor	Maximum: one elapsed business day, excepting system failures <sup>2</sup>
6	Standard file content validation timing	Number of business days following receipt of a tariff bill file to complete standard file content validation tests and transmit a TBD transaction(s).	Retailer	Maximum: two elapsed business days
7	Dispute response timing	Number of business days following receipt of a TBD transaction to notify a retailer of acceptance or rejection of the dispute.	Distributor	Minimum: one elapsed business day Mean: two elapsed business days for 95 per cent of disputes Maximum: five elapsed business days
8	Dispute resolution timing	Number of days following receipt of a TBD transaction to resolve the dispute by transmitting a cancel and rebill (or a cancel without a rebill in circumstances where there will never be a rebill), provided that the TBD transaction was accepted. (Note: in exceptional circumstances, the rebill may be based on an estimate.)	Distributor	Mean: 5 elapsed business days for 95 per cent of disputes Maximum: 35 calendar days for 100 per cent of disputes

<sup>2</sup> System is unable to produce a tariff bill file output or experiences large-scale file validation failures.

Table Ref ID	Requirement	Measure	Responsibility	Target
9	Billing cycle change notice	Number of calendar days' notice provided prior to effective billing cycle adjustments, as presented in the tariff bill calendar file.	Distributor	Minimum: 90 calendar days
10	Site cycle catalogue update frequency	Frequency with which the site cycle catalogue file must be updated provided site cycle changes have occurred.	Distributor	Each business day
11	Electric site cycle change notice	Notification period if the lesser of three per cent or 1,000 sites within an electric distributor's territory are forecasted to change billing cycles in a given billing month.	Electric distributor	Minimum: 30 calendar days
12	Gas site cycle change notice	Notification period for every site within a gas distributor's territory that changes billing cycles.	Gas distributor	Minimum: 30 calendar days
13	Bill production timing for withheld sites	Number of calendar days between a site's inclusion in a tariff bill file or between the transaction date of the SMC showing energization and inclusion in its first tariff bill file.	Distributor	Maximum: 70 calendar days between a site's tariff bills
14	Scheduled RRT energy rate price change notice	Number of calendar days, prior to the effective date of a price change, to publish the RRT price change calendar.	Retailer	60 calendar days
15	UCI transmission timing	Number of business days following transmittal of a CSA transaction to transmit a UCI transaction.	Retailer	Maximum: one elapsed business day
16	Distributor standard code change notice	Number of business days' notice provided prior to effective date of a CTF, TRC, TRF, MDF or OCF.	Distributor	Minimum: five elapsed business days
17	Distributor current operating practice (as per Section 2.1.1) change notice after specific project details and timelines are known	Number of months' notice prior to implementation.	Distributor	Minimum: one-months' notice prior to implementation

Table Ref ID	Requirement	Measure	Responsibility	Target
18	Currency of tariff bill file content	<p>Percentage of all sites with a site production reason code of "2020" (regular billing cycle) published in original tariff bill files, where the number of business days from the current bill period end date for each site to the tariff bill file date created is less than or equal to eight business days.<sup>3</sup></p> <p>Formula:</p> <p><i>Percentage of sites billed and coded regular billing cycle that are billed within the required eight business days = [(number of sites within original tariff bill files with a site production reason code of "2020" where the tariff bill file date created minus the current bill period end date for each site is less than or equal to eight business days) ÷ (the total number of sites with a site production reason code of "2020" in original tariff bill files)] x 100</i></p>	Distributor	95 per cent of sites
19	File completeness	<p>Percentage of all sites assigned to billing cycles transmitted in original tariff bill files with a site production reason code of "2020" (regular billing cycle) on their scheduled tariff bill file publish date as stated in the tariff bill calendar file.</p> <p>Formula:</p> <p><i>Percentage of sites expected to bill on each billing cycle that are billed and coded regular billing cycle on their scheduled tariff bill file publish date = [(number of sites assigned to billing cycles and transmitted in original tariff bill files on their scheduled tariff bill file publish date with a site production reason code of 2020) ÷ (total number of sites expected to bill for those billing cycles)] x 100</i></p>	Distributor	98 per cent of sites

## 2.14 Data retention

- (1) Distributors are obligated to retain tariff billing data in its original format for a minimum of three years. A distributor is allowed to retain tariff billing data in its original format for two years if it provides multiple One-Time Charge records that align with the charge periods when performing cancels and rebills of charges, as described in Section 5.4.4, spanning beyond the period that the distributor has tariff billing data in its original format.
- (2) Information used in the derivation of tariff billing data must be retained for a minimum of seven years.

<sup>3</sup> Distributors are exempt from including sites belonging to a seasonal bill cycle (e.g. irrigation) during the off-season (i.e. when the site is idle) and from including sites dependent on transmission tariff information from the ISO when reporting their performance for this metric.

### 3 Tariff bill-ready model

This section of the rule defines the process, data flow, procedural steps and roles and responsibilities to support bill-ready customer bill production. The business transactions referred to in this section are further discussed in Section 4.

#### 3.1 Customer billing process flow

The process flow illustrated below depicts the activities that may take place on a regular cycle basis in the generation of tariff charges by a distributor and production of a customer bill by a retailer following successful site creation, enrolment and energization.

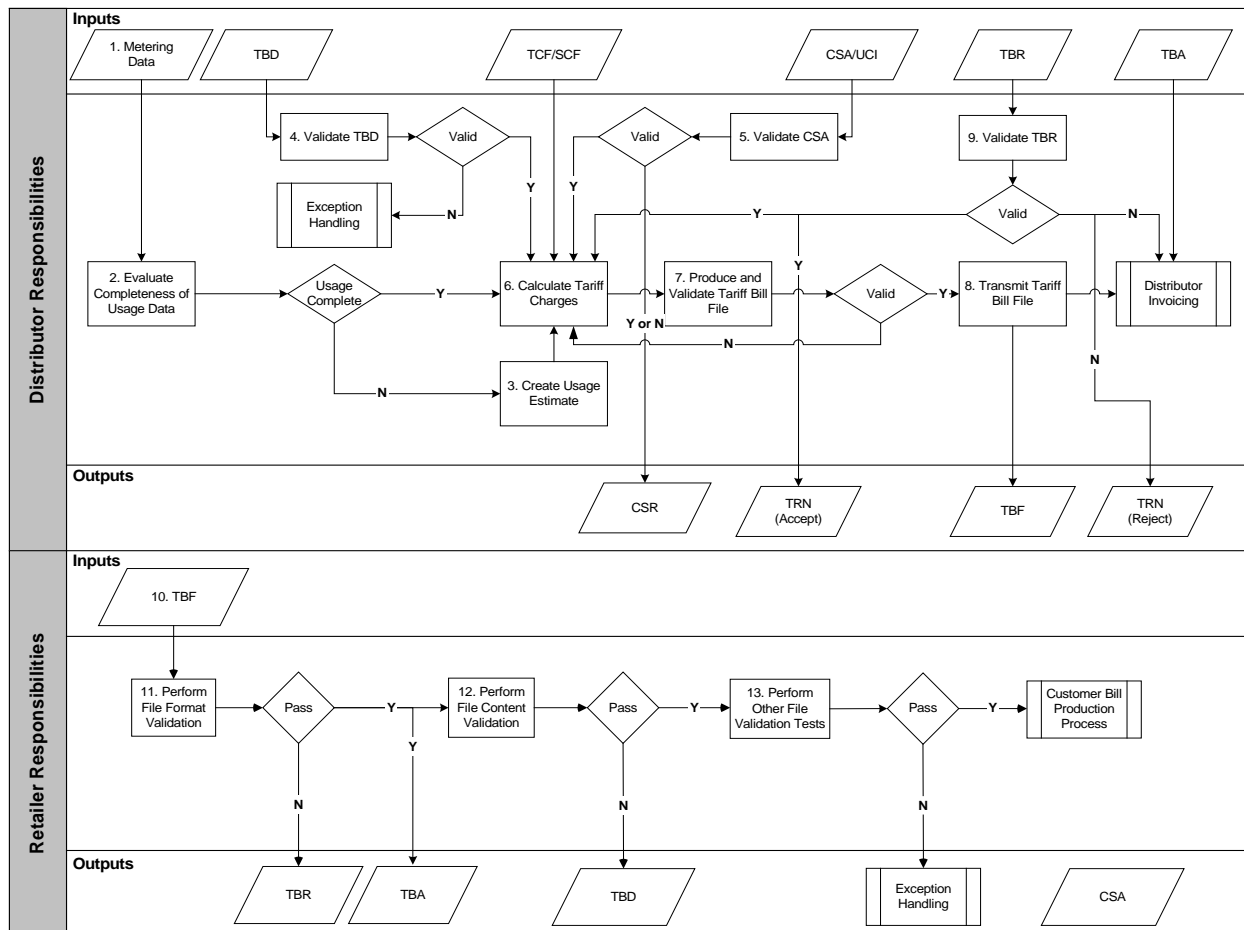


Figure 3-1 Customer billing process flow

The following sections provide a description of distributor and retailer responsibilities with respect to performing procedural steps outlined in Figure 3-1. Each step corresponds to the numbered item in the figure.

### 3.1.1 Distributor responsibilities

Distributors are responsible for performing the following procedural steps:

- (1) The metering data manager (MDM) function submits metering transactions based on the scheduled read date or as required.
- (2) The distributor evaluates the availability and completeness of usage information spanning the current billing period for each site in the scheduled billing cycle.
  - (a) If Step 1 provides metering data for a particular site, the distributor determines the tariff bill period end date for that site and proceeds to Step 6.
  - (b) If Step 1 does not provide metering data for a particular site (due to metering data validation failure or a missed read) or actual metering data spanning the scheduled billing period is not available, the distributor proceeds to Step 3 and estimates usage information for that site.
- (3) If actual metering data spanning the scheduled billing period is not available, usage information is estimated for the appropriate tariff bill periods in accordance with a distributor's usage estimation process as filed with the Commission.
- (4) If the distributor receives a tariff bill dispute (TBD) transaction, the distributor shall assess the validity of the dispute.
  - (a) If the TBD transaction is valid, the distributor proceeds to Step 6.
  - (b) If the TBD transaction is not valid, the distributor will proceed with the exception handling process.
- (5) If the distributor receives a customer switch advice (CSA) transaction, the distributor shall assess the validity of the customer switch according to standard CSA validation rules.
  - (a) If the CSA transaction is valid, the distributor sends a customer switch receipt (CSR) transaction notifying the retailer of CSA acceptance and the distributor proceeds to Step 6.
  - (b) If the CSA transaction is not valid, the distributor sends a CSR transaction notifying the retailer of CSA rejection.
- (6) The distributor calculates tariff charges for each site according to the distributor published tariff bill calendar file and site cycle catalogue file,

except for tariff billing events that trigger the production of off-cycle tariff charges.

- (7) The distributor produces and validates the tariff bill file according to tariff bill file validation tests and other validation tests.
  - (a) If the tariff bill file produced in Step 7 passes standard file format, standard file content and other distributor validation tests, the distributor proceeds to Step 8.
  - (b) If the tariff bill file produced in Step 7 fails standard file format, file content or other distributor validation tests, the distributor either:
    - (i) withholds the entire tariff bill file due to file format failures; or
    - (ii) withholds from presentation the site(s) and associated charges from the published tariff bill file that failed these validation tests and proceeds to Step 8.
- (8) The distributor electronically transmits the tariff bill file to the retailer. If the distributor does not receive a TBA or TBR transaction within the timeframe prescribed in Table 2-1, the distributor may proceed with the production of distributor invoices according to the provisions outlined in Section 2.11.
- (9) If the distributor receives a TBR transaction within the timeframe prescribed in Table 2-1, the distributor shall assess the validity of the rejection according to the standard file format validation tests in Section 5.2.
  - (a) If the TBR transaction is valid, the distributor sends a tariff bill rejection notification (TRN) transaction notifying the retailer and proceeds to Step 6.
  - (b) If the TBR transaction is not valid, the distributor sends a TRN transaction notifying the retailer and then may proceed with the production of distributor invoices according to the provisions outlined in Section 2.11.

### 3.1.2 Retailer responsibilities

Retailers may, at their discretion, perform the following procedural steps:

- (10) Retailer receives a tariff bill file from a distributor.



- (11) Retailer performs standard file format validations according to the procedural steps in Section 5.1.1.
  - (a) If Step 11 results in a single validation failure, the retailer rejects the tariff bill file and sends a TBR transaction to the distributor indicating the basis for the rejection via a standard rejection code.
  - (b) If Step 11 results in no validation failures, the retailer must send a TBA transaction to the distributor to indicate acceptance of the tariff bill file and then proceeds to Step 12.
- (12) Retailer performs standard file content validations according to the procedural steps in Section 5.1.2.
  - (a) If Step 12 results in no validation failures, the retailer proceeds to Step 13.
  - (b) If Step 12 results in one or more validation failures, the retailer sends a TBD transaction(s) to the distributor to indicate the tariff bill file records under dispute and report the basis for the dispute via a standard dispute code. The retailer then proceeds to Step 13 for those sites that passed standard file content validation.
- (13) Retailer performs other validation tests according to internal processing or business rules:
  - (a) If Step 13 results in no internal validation failures, the retailer proceeds with customer bill production.
  - (b) If Step 13 results in one or more internal validation failures, the retailer may, at its discretion, dispute the data with a distributor through a manual exception handling process but otherwise proceeds with customer bill production.

If a retailer does not transmit a TBA or TBR transaction within the prescribed timeframe as stated in Section 2.13, the distributor may proceed with the production of a distributor invoice according to the provisions in Section 2.11.

### 3.2 Tariff billing events

- (1) Distributors must present tariff charges to a retailer within a tariff bill file according to specific tariff billing events that occur during the scheduled billing period.
- (2) Table 3-1 outlines the tariff billing events that a distributor must apply in the production of a tariff bill file. The following qualify as tariff billing events:

- (a) A tariff bill file event triggering the production of a tariff bill file or the inclusion of a site in a tariff bill file on a day other than the day dictated by the tariff bill calendar.
  - (b) A tariff bill period event triggering the start or end date of a tariff bill period.
  - (c) A usage period event triggering the start or end date of a usage period.
  - (d) A charge period event triggering the start or end date of a charge period.<sup>4</sup>
- (3) Table 3-1 further characterizes tariff billing events in the following terms:
- (a) M (mandatory) indicates that the tariff billing event will trigger that event.
  - (b) O (optional) indicates that the tariff billing event may optionally trigger that event.
  - (c) N (not qualified) indicates that the tariff billing event does not qualify as a trigger for that event.
- (4) Where tariff billing events coincide on the same day, neither takes precedence over the other(s) in so far as all events qualifying as mandatory must be incorporated in tariff bill file production. For example, if a change in site status occurs on the same day as an MDM metering output, a tariff bill period event, usage period event and charge period event are deemed to have occurred.

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<sup>4</sup> A charge period event should result in a universal split of all charge records, irrespective of charge component (combination of tariff cross-reference code, component category code, component type code, component basis code and step number).

Table 3-1. Tariff billing events

Table Ref ID	Tariff Billing Event	Description	Tariff Bill File Event	Tariff Bill Period Event	Usage Period Event	Charge Period Event
1	Regular billing cycle	One of the following events has occurred: § The close of a scheduled bill period has resulted in the generation of estimated usage. § A valid meter read spanning 27 days or more and less than or equal to the number of days in the scheduled bill period is received.	M	M	M	M
2	Enrolment (following initial site creation)	Initial enrolment following site creation	N	O	O	O
3	Enrolment (following retailer switch)	Enrolment of a site following transfer of ownership	N	M	M	M
4	De-enrolment	The de-enrolment of a site as a result of: § a transfer of ownership; or § cessation of ownership (pre-salvage)	M	M	M	M
5	Customer switch	A CSA is sent from a retailer to a distributor as a result of the following: § customer move in/move out.	M	M	M	M
6	Missing site	A site was missing from the original tariff bill file as a result of the following: § Site withheld from tariff bill file production due to failure of standard file or content validation tests.	M	N	N	N
7	Accepted tariff billing dispute (most recently billed period)	A distributor presents adjustments as a result of disputed tariff billing information from a retailer for the most recently billed period.	M	N	N	N
8	Accepted tariff billing dispute (prior period)	A distributor presents adjustments as a result of resolution of a disputed tariff bill period arising from a prior billing period, or resolution of a disputed one-time charge irrespective of billing period.	O	N	N	N
9	Change in site status	A change in a site's status has occurred as a result of one of the following: § site is energized/de-energized § site changes to idle status	O	M	M	M
10	MDM metering output	A DCM transaction is published by the MDM function.	N	O	M	O

Table Ref ID	Tariff Billing Event	Description	Tariff Bill File Event	Tariff Bill Period Event	Usage Period Event	Charge Period Event
11	Off-cycle meter read	An off-cycle meter read occurs as a result of one of the following: § retailer requested § distributor initiated § missing or late meter read § customer supplied	O	O	M	O
12	Equipment change	One of the following equipment changes has occurred: § physical meter change § meter multiplier change (electric only) § transformer change (electric only) § auxiliary device change (gas only)	N	O	M	O
13	Distribution or transmission tariff price change (energy based charges)	A distribution tariff price change has occurred affecting energy based charges, having a component basis code of "E" as a result of one of the following: § change in tariff structure § change in tariff pricing § addition or removal of a rate rider	N	O	M	M
14	Distribution or transmission tariff price change (non-energy based charges)	A distribution tariff price change has occurred affecting non-energy based charges, having a component basis code not equal to "E" as a result of one of the following: § change in tariff structure § change in tariff pricing § addition or removal of a rate rider	N	O	O	M
15	RRT energy rate price change	An RRT energy rate price change has occurred as a result of the following: § changes in a regulated rate tariff(s)	N	O	M	O
16	Rate code change	A rate code change has occurred as a result of one of the following: § rate code change resulting from a change in site characteristics § light type change (electric only) § connect demand change (electric only) § tariff contract change (electric only) § franchise area change § profile class change	O	M	M	M
17	Changes to totalized sites	The addition or removal of a meter or socket to or from a totalized site.	O	M	M	M

Table Ref ID	Tariff Billing Event	Description	Tariff Bill File Event	Tariff Bill Period Event	Usage Period Event	Charge Period Event
18	Change in demand contract	Termination or other change in a site's contracted demand.	N	O	O	O
19	Calendar month end	The last day of a month has occurred.	N	O	M	O
20	Change in site provincial carbon levy exempt status	The addition or removal of the provincial carbon levy exempt flag has occurred	O	M	M	M
21	Provincial carbon levy price change	The provincial carbon levy price change has occurred affecting energy based charges, having a component basis code of "E" as a result of the following: § Change in provincial carbon levy price per GJ	N	O	M	M

Note that an MDM metering output that presents usage information spanning 27 days or more but less than the end date of the scheduled billing period will effectively shorten the scheduled billing period.

### 3.3 Tariff billing period structure

The tariff billing period structure supports disclosure of tariff charges and related determinants according to unique periods of time. Section 3.2 describes the tariff billing events that trigger breaking any of these periods into smaller spans of time.

Starting with the scheduled billing period and culminating with the charge period, the following sections explain the components of the tariff bill period structure and the relationships that exist between them. Figure 3-2 illustrates the tariff bill period structure.

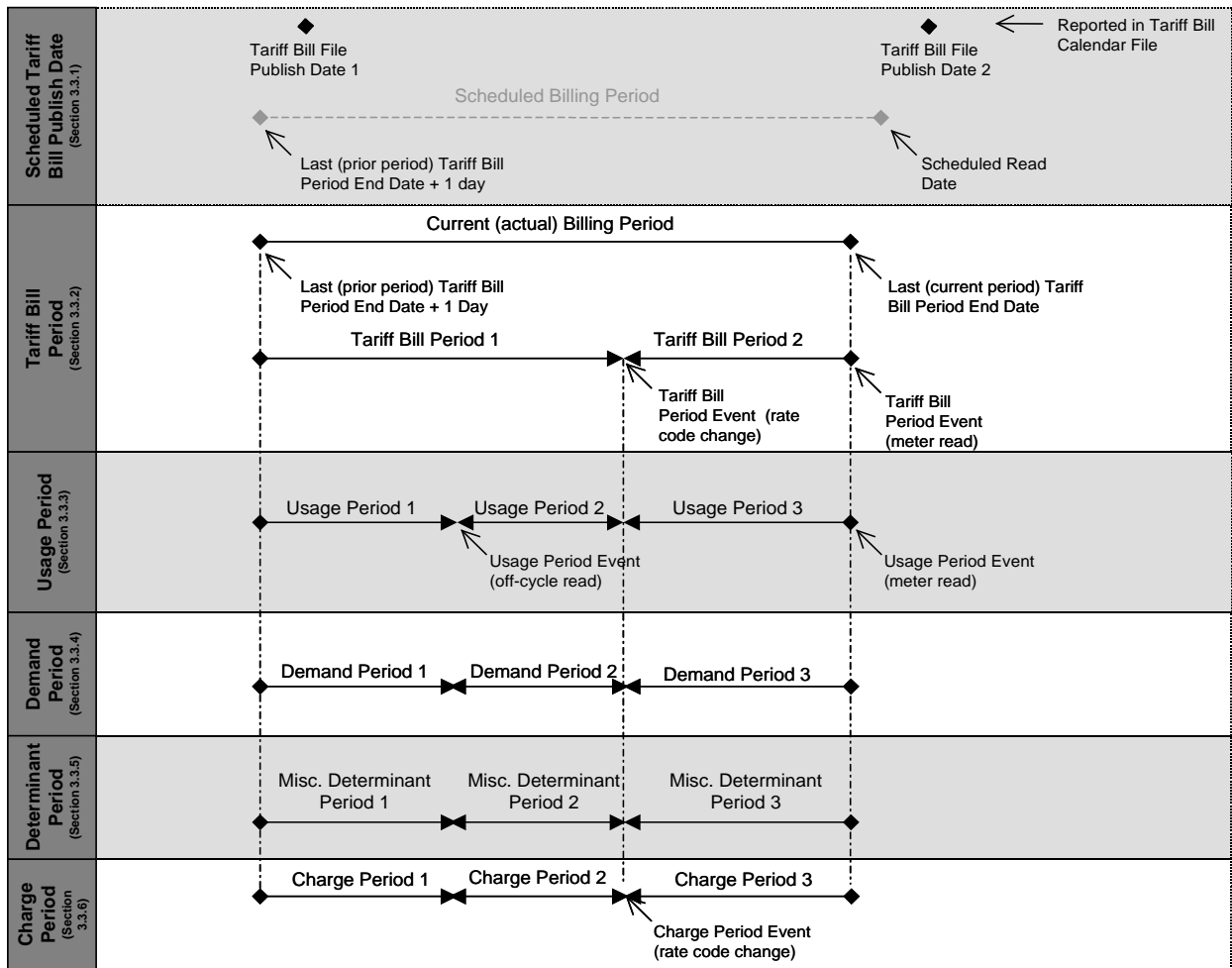


Figure 3-2 Tariff billing period structure

### 3.3.1 Scheduled tariff bill publish date

As stated in Section 2.3, distributors will publish tariff bill calendar and site cycle catalogue files. A retailer can align customer bill production for each site according to the tariff bill publish date for a billing cycle reported in the tariff bill calendar file and a site's tariff billing cycle reported in the site cycle catalogue file. The scheduled tariff bill file publish date in combination with the end date of the last tariff bill period received in a previous tariff bill file enables a retailer to infer the scheduled billing period for any one of its sites.

### 3.3.2 Tariff bill period

- (1) The tariff bill period refers to a span of time bound by tariff billing events (e.g. site enrolment or a rate code change, as described in Table 3-1) within which tariff charges are presented for a site.
- (2) The start date of a tariff bill period is equivalent to the later of:

- (a) the end date of a previous tariff bill period contained within the current or a prior tariff bill file plus one day; or
  - (b) the date of a tariff bill period event such as a new site enrolment (as described in Table 3-1).
- (3) The end date of a tariff bill period is equivalent to the earlier of:
- (a) the effective date of a tariff bill period event (as described in Table 3-1); or
  - (b) the date of the regular billing cycle denoting the end of a scheduled billing period.
- (4) Each tariff bill period within a tariff bill file establishes the boundaries within which usage must be allocated and tariff charges presented. However, a single site may require more than one tariff bill period to span the timeframe established by the end date (plus one day) of the last tariff bill period presented for that site and the end date of that site's scheduled billing period. Consequently, a series of one or more continuous tariff bill periods, excluding cancels and rebills, is referred to as the current billing period and should normally span no more than 35 days or fewer than 27 days, with the exception of the following:
- (a) Presentation of a site resulting from tariff billing events that trigger off-cycle billing.
  - (b) Presentation of a site on cycle having an irregular bill period as indicated by the Irregular Bill Period Type Code field being populated with a code other than "9000" in a distributor's published tariff bill calendar file.
  - (c) Presentation of a site on cycle that spans multiple scheduled billing periods.
  - (d) Presentation of a site on cycle based on an elongated read.<sup>5</sup>
  - (e) Presentation of a site on cycle based on an abnormally short read.<sup>6</sup>

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<sup>5</sup> Elongated reads can occur on an exception basis as a result of an actual read occurring before, but within the tolerable range of, the scheduled read date, and the next read occurring more than 35 days later, and within the tolerable range of the next scheduled read date, for a particular site.

<sup>6</sup> Abnormally short reads can occur on an exception basis as a result of actual read occurring after, but within the tolerable range of, the scheduled read date, and the next read occurring less than 27 days later, and within the tolerable range of the next scheduled read date, for a particular site.

- (f) Presentation of a new or existing site on cycle that has been enrolled during the scheduled billing period.

### 3.3.3 Usage period

A usage period refers to a whole day span of time bound by the effective timing of usage period events (such as a scheduled or off-cycle meter read) where usage is determined for a site. A single tariff bill period may require more than one usage period to span the timeframe established by the tariff bill period start and end dates.

### 3.3.4 Demand period

The demand period represents a period of time expressed in terms of whole days and is bound by the start and end date of an associated tariff bill period in the case of all types of demand. A single tariff bill period may require more than one demand period to span the timeframe established by the tariff bill period start and end dates.

### 3.3.5 Miscellaneous determinant period

The miscellaneous determinant period represents a period of time expressed in terms of whole days and is bound by the start and end dates of an associated tariff bill period.

### 3.3.6 Charge period

The charge period refers to a span of time bound by the effective timing of charge period events (such as a rate code change or distribution or transmission tariff price change) and is aligned to the tariff bill period start and end dates.



## 4 Information exchange

This section of the rule defines business transaction standards that apply to the exchange of tariff billing information between a distributor and a retailer to support bill-ready customer bill production and the business rules that govern the production and use of these transactions.

### 4.1 Information exchange

The standards presented in the following sections are intended to be as specific as practical to facilitate data exchange between distributors and retailers. At the same time, the Commission recognizes that problems or issues may arise with individual market participants during system implementation or changes in market structure that would necessitate an adjustment to the standards. The Commission may consider revising these standards upon presentation of a documented need to do so by a market participant.

#### 4.1.1 Electronic tariff bill file and associated transactions

The standard tariff bill file and the associated transactions required to support the tariff billing process are listed in Table 4-1. All transactions listed in the table that require electronic transmittal between retailer and distributor are to be sent by way of the standard transaction transport method for electronic data exchange for the electric and gas utility industry. Refer to Appendix B for further information.

Table 4-1. Tariff bill file and associated transactions

Table Ref ID	Tariff Billing Activity	Relationship	File/Transaction	Electronic Transmittal Required?
1	Provide tariff billing data	Distributor to retailer	Tariff bill file (TBF)	ü
2	Acknowledge receipt and validity of tariff bill file	Retailer to distributor	Tariff bill accept (TBA) transaction Tariff bill reject (TBR) transaction	ü ü
3	Provide tariff bill reject transaction status	Distributor to retailer	Tariff bill rejection notification (TRN) transaction	ü
4	Dispute tariff bill file data	Retailer to distributor	Tariff bill dispute (TBD) transaction	ü
5	Provide billing cycle data	Provided on distributor website (optionally distributor may send to retailer)	Tariff bill calendar file (TCF) Site cycle catalogue file (SCF)	Optional Optional
6	Provide customer switch notification	Retailer to distributor	Customer switch advice (CSA) transaction	ü
7	Provide customer switch status	Distributor to retailer	Customer switch receipt (CSR) transaction	ü
8	Disclose distributor specific tariff cross reference codes	Distributor to market participants	Tariff cross-reference code file (TRF)	Optional

Table Ref ID	Tariff Billing Activity	Relationship	File/Transaction	Electronic Transmittal Required?
9	Disclose distributor specific component type codes	Distributor to market participants	Component type code file (CTF)	Optional
10	Disclose distributor specific one-time charge codes	Distributor to market participants	One-time charge code file (OCF)	Optional
11	Disclose municipality ID	Provided on Commission website	Municipality ID file (MID)	N/A
12	Disclose REA codes	Provided on Commission website	REA code file (RCF)	N/A
13	Disclose distributor specific miscellaneous determinant codes	Distributor to market participants	Miscellaneous determinant code file (MDF)	Optional
14	Disclose tariff rate code	Distributor to market participants	Tariff rate code file (TRC)	Optional
15	Provide provincial carbon levy exempt status	Retailer to distributor	Provincial carbon levy exempt (CLE) transaction	ü
16	Provide provincial carbon levy exempt notification	Distributor to retailer	Provincial carbon levy exempt notification (CLN) transaction	ü

## 4.2 Tariff bill file structure

The tariff bill file presents site-specific distribution and transmission tariff charges, as well as applicable one-time charges, for a given period of time. The tariff bill file information is presented in a hierarchical structure, which supports presentation of summary file, site and tariff bill period information, and detailed tariff bill period determinants and charges. Further, the structure supports presentation of multiple tariff bill periods and associated records to segment charges within a site's scheduled billing period. The tariff bill file structure, represented in Figure 4-1 for presentation purposes, is provided and transmitted as a comma separated value (CSV) file.

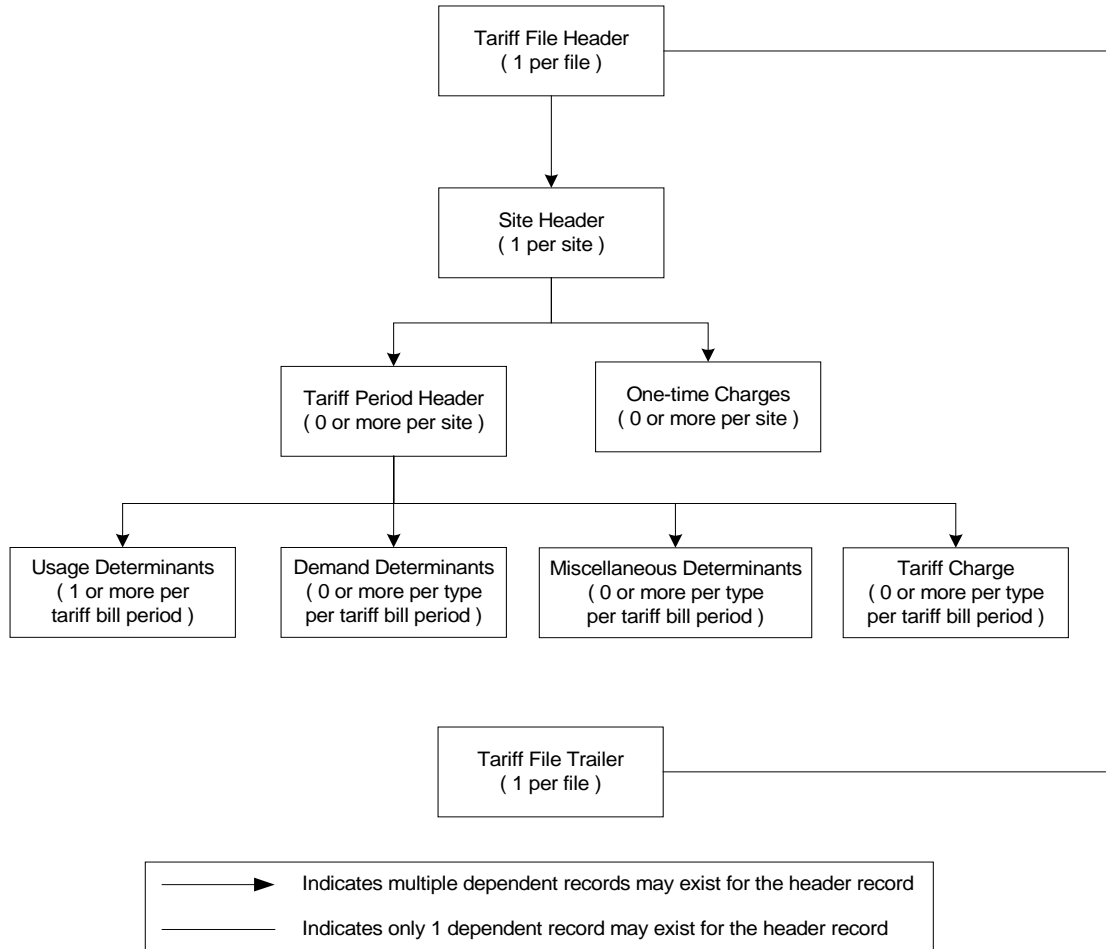


Figure 4-1 Tariff bill file structure

### 4.3 Tariff bill file content rules

This section of the rule provides the rules that distributors are required to follow in the production of a tariff bill file.

#### 4.3.1 General tariff bill file rules

The following general rules apply in the production of a tariff bill file:

- (1) A tariff bill file must be produced per distributor service area on each scheduled tariff bill file publish date and include all sites for which a tariff bill file event has occurred. Where technical limitations prevent a distributor from presenting all of a retailer's sites within a single tariff bill file for any particular billing cycle, more than one tariff bill file may be produced per retailer per day, but all of a site's charges for that cycle must be presented in the same file.
- (2) In calculating and presenting tariff charges, a distributor must limit its degree of precision to the stated degree of precision, or less, for that field in the tariff bill file.

- (3) Only one commodity type may be represented in a tariff bill file.
- (4) One-time charges must be presented independently from other tariff charges under a Site Header record and likewise must be disputed, cancelled and rebilled independently from other tariff charges.
- (5) Where data fields are repeated throughout the file to link child records with their hierarchical parent, the field contents must match.
- (6) Electric distributors may express site and determinant records for totalized or multi-socket sites as follows:
  - (a) For interval meters only: a single site representing the totalized usage, demand and miscellaneous determinants for all meters for the same tariff bill periods.
  - (b) For cumulative or interval meters: individual sites representing meter-level usage, demand and miscellaneous determinants for the tariff bill period.
- (7) Electric distributors are not required to disclose all of the billing determinants nor charge details for transmission-connected sites, provided additional information in the form of a copy of the AESO invoice or the output from the AESO calculation tool is provided to the retailers at the same time the summarized tariff bill file charges are sent to the retailers.
- (8) Where the retailer of record changes for a transmission-connected site mid-month or a customer switch occurs for a transmission-connected site mid-month, the electric distributor is obligated to bill the retailer of record at month end the full calendar month's charges. The electric distributor shall not split the charges at the retailer switch or at the customer switch.
- (9) Gas distributors will disclose totalized sites as a single site representing totalized usage, demand and miscellaneous determinants for all meters for the same tariff bill periods.
- (10) Gas distributors will disclose subtract metered sites as a single site representing net usage, demand and miscellaneous determinants for primary and subtract meters for the same tariff bill periods.
- (11) Distributors are obligated to release tariff bill file(s) containing all the sites in a tariff billing cycle on the scheduled tariff bill file publish date stated in the tariff bill calendar file, with the exception of any sites withheld from tariff bill file production. In addition, any sites subjected to a tariff billing event that requires the production and presentation of off-cycle tariff charges must also be included within the timeframe prescribed in Table 2-1.
- (12) In subsequent sections, the following terms apply:
  - (a) Mandatory – must be populated for every record.

- (b) Conditional – populated according to stated production rules.
- (c) Optional – populated at a distributor’s discretion.

### 4.3.2 Tariff File Header record

The Tariff File Header record of a tariff bill file contains summary information necessary to validate and track information contained within the tariff bill file. The contents of the Tariff File Header record are provided in Table 4-2.

Table 4-2. Tariff File Header record content

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Record ID	Number(15)	<b>Mandatory field</b> – A unique reference ID for a Tariff File Header record produced by a distributor to allow a distributor or retailer to refer to the specific data record. This value must be unique to a distributor.
2	Parent ID	Number(15)	<b>Mandatory field</b> – Must be populated with [null] for the Tariff File Header record.
3	Record Type	Char(2)	<b>Mandatory field</b> – Code to indicate record type. This code must equal “FH”.
4	Retailer ID	Retailer ID format	<b>Mandatory field</b> – Unique identifier for the recipient. This identifier must equal that of the intended retailer receiving the tariff bill file. Refer to Appendix A for further information.
5	Sender ID	Distributor ID format	<b>Mandatory field</b> – Unique identifier for the sender. This identifier must equal that of the distributor, or agent of the distributor, sending the tariff bill file. Refer to Appendix A for further information.
6	Commodity Code	Char(2)	<b>Mandatory field</b> – Standardized code representing commodity type. Refer to Appendix A for further information.
7	Date Created	Date time format	<b>Mandatory field</b> – Date and time the tariff bill file was created or last modified. To ensure that a retailer is provided with up-to-date tariff billing information, this date must be equal to or no more than two business days in advance of the scheduled tariff bill file publish date (as reported in the tariff bill calendar file).
8	Billing Cycle	Varchar(9)	<b>Conditional field</b> – The billing cycle to which sites included in a tariff bill file billing on their regular billing cycle belong. If a billing cycle is not scheduled to be published on a given day but off-cycle charges must be presented, this field is [null]. Note: Where multiple billing cycles are scheduled to bill on the same day, only one billing cycle will be provided.
9	Tariff Bill File Reference ID	Number(15)	<b>Conditional field</b> – Record ID of the Tariff File Header record of a tariff bill file that has been rejected and is being replaced. If an original tariff bill file is being presented, this field is [null]. Note: If one or more replacement files have been rejected, this field must equal the Record ID field of the Tariff File Header record last rejected tariff bill file.

#### Production rules

The following production rules apply for the Tariff File Header record:

- (1) Data contained within the Tariff File Header record must adhere to the field level rules stated in Table 4-2.

- (2) A tariff bill file must contain only one Tariff File Header record.

#### 4.3.3 Site Header record

The Site Header record of the tariff bill file is the hierarchical child of the Tariff File Header record and is the physical representation of a site's current billing period. It contains general site information, as well as site summary information related to usage and tariff charges contained within a tariff bill file. The contents of the Site Header record are provided in Table 4-3.

Table 4-3. Site Header record content

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Record ID	Number(15)	<b>Mandatory field</b> – A unique reference ID for a Site Header record produced by a distributor to allow the distributor or a retailer to refer to the specific data record. This value must be unique to a distributor.
2	Parent ID	Number(15)	<b>Mandatory field</b> – Unique reference ID for the parent Tariff File Header record. This must match the Record ID field in the Tariff File Header record.
3	Record Type	Char(2)	<b>Mandatory</b> – Code to indicate record type. Value must equal "SH".
4	Site ID	Site ID format	<b>Mandatory</b> – Unique identifier representing a site in the electric or gas market. Refer to Appendix A for further information.
5	Current Billing Period Start Date	Date format	<b>Conditional field</b> – Start date (inclusive) of the current billing period. This field must equal the earliest Tariff Bill Period Start Date field of original tariff bill periods for a site (i.e. excluding cancels and rebills) that occur after the last current billing period previously issued to a retailer. Where tariff bill periods consisting of only cancel and/or rebill charges are presented for a site, or in the absence of tariff bill periods, this field is [null].
6	Current Billing Period End Date	Date format	<b>Conditional field</b> – End date (inclusive) of the current billing period. This field must equal the latest Tariff Bill Period End Date field of original tariff bill periods for a site (i.e. excluding cancels and rebills) that occur after the last current billing period previously issued to a retailer. Where tariff bill periods consisting of only cancel and/or rebill charges are presented for a site, or in the absence of tariff bill periods, this field is [null].
7	Distributor ID	Distributor ID format	<b>Mandatory field</b> – Unique identifier for a distributor. This identifier must equal that of the distributor responsible for the site. Refer to Appendix A for further information.  Note: This distributor may be different from the distributor sending the tariff bill file.
8	Zone ID	Zone ID format	<b>Mandatory field</b> – Unique identifier representing a settlement zone within Alberta. Refer to Appendix A for further information.
9	Municipality ID	Varchar(4)	<b>Mandatory field</b> – Unique identifier representing a municipality in Alberta. Refer to Appendix A for further information.
10	REA Code	Char(4)	<b>Conditional field</b> – Unique identifier representing a valid REA in Alberta. Refer to Appendix A for further information.  If the Commodity Code field = "EL" and the site is not within an REA, this field is [null].  If the Commodity Code field = "NG" this field is [null].

Element Sequence	Field (in sequence)	Data Type/Size	Description
11	Billing Cycle	Varchar(9)	<b>Mandatory field</b> – A value representing the billing cycle to which a site belongs. This value must match a distributor's published billing cycle.
12	Usage Total	Number(14,4)	<b>Mandatory field</b> – Usage check total for a site. This must equal the sum of all Usage Amount fields in a given tariff bill file for a site, including cancels and rebills. Positive and negative values are acceptable. If a site has no usage records, the Usage Total field must = "0".
13	Usage UOM	Varchar(4)	<b>Mandatory field</b> – Unit of measure for usage. If the Commodity Code field = "EL" this field = "KWH". If Commodity Code = "NG" this field = "GJ".
14	Charge Total	Number(11,2)	<b>Mandatory field</b> – Charge check total for a site. This must equal the sum of all Charge Amount fields in both Tariff Charge and One-Time Charge records in a given tariff bill file for a site, including cancels and rebills. Positive and negative values are acceptable. If a site has no Tariff Charge or One-Time Charge records, this field = "0".
15	Additional Site Information	Varchar(50)	<b>Optional field</b> – Free-form text field for providing additional site information that can be used at a retailer's discretion to place on a customer's bill.
16	Site Production Reason Code	Number(4)	<b>Mandatory field</b> – Standardized code representing the tariff billing event triggering the inclusion of the site in the tariff bill file. Refer to Appendix A for further information.
17	As-at Date	Date time format	<b>Optional field</b> – Latest transaction date and time for interval data used in the bill run for a site.
18	Parent Site ID	Site ID format	<b>Conditional field</b> – Site ID of the master or parent site, where applicable. If a site does not have a parent site ID, this field is [null].

### Production rules

The following production rules apply to the Site Header record:

- (1) Data contained within the tariff bill file Site Header record must adhere to the field-level rules stated in Table 4-3.
- (2) A tariff bill file must contain only one Site Header record per site.
- (3) If the tariff bill file is only presenting cancels, rebills or one-time charges for the site, no current billing period applies.
- (4) A Site Header record is required in the case of a site that has incurred no charges (i.e. tariff or one-time charges) for a scheduled billing period. The exceptions to this production rule are:
  - (a) Sites that belong to a seasonal rate class (e.g. irrigation), which will be billed in accordance with the terms and conditions of that rate class.
  - (b) Sites that have been created but not yet energized.

- (5) A Site Header record is not required if a site has been withheld from tariff bill file production due to failure of standard content validation tests or other internal production validation tests.
- (6) Current billing periods must be contiguous. As a consequence, if a distributor must present original tariff billing information for a period of time that precedes the end date of the last current billing period presented to a retailer, the current billing period must only reflect original tariff bill periods that occur after the end date of the last current billing period presented to that retailer.

#### 4.3.4 Tariff Bill Period Header record

The Tariff Bill Period Header record of the tariff bill file is the hierarchical child of the Site Header record and is the physical representation of a site’s tariff bill period. Each Tariff Bill Period Header record represents a unique tariff bill period for a site. It defines the tariff bill period and contains summary information pertaining to usage and tariff charges for that period. The contents of the Tariff Bill Period Header record are provided in Table 4-4.

Table 4-4. Tariff Bill Period Header record content

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Record ID	Number(15)	<b>Mandatory field</b> – A unique reference ID for a Tariff Bill Period Header record produced by a distributor to allow the distributor or a retailer to refer to the specific data record. This value must be unique to a distributor.
2	Parent ID	Number(15)	<b>Mandatory field</b> – Unique reference ID for the parent Site Header record. This must match the Record ID field in the Site Header record.
3	Record Type	Char(2)	<b>Mandatory field</b> – Code to indicate record type. Value must equal “TH”.
4	Site ID	Site ID format	<b>Mandatory field</b> – Unique identifier representing a site in the electric or gas market. This must equal the Site ID field in the Site Header record. Refer to Appendix A for further information.
5	Tariff Bill Period Start Date	Date format	<b>Mandatory field</b> – Start date (inclusive) of the tariff bill period.
6	Tariff Bill Period End Date	Date format	<b>Mandatory field</b> – End date (inclusive) of the tariff bill period. This date cannot exceed the Current Billing Period End Date.
7	Cancel Indicator	Char(1)	<b>Mandatory field</b> – “Y” or “N” value indicating a cancelled record. “Y” =Yes “N”=No.
8	Tariff Bill Period Reference ID	Number(15)	<b>Conditional field</b> – Record ID of a previous Tariff Bill Period Header record that is being cancelled. If Cancel Indicator = “Y” this field is mandatory, otherwise it is [null].
9	Cancel Reason Code	Number(4)	<b>Conditional field</b> – Standardized code indicating a reason for sending a cancel. Refer to Appendix A for further information. If Cancel Indicator = “Y” this field is mandatory, otherwise it is [null].



Element Sequence	Field (in sequence)	Data Type/Size	Description
10	Tariff Rate Code	Varchar(9)	<b>Mandatory field</b> – Code to identify the tariff rate applicable to the tariff bill period. The description of the code used in this field must match the distributor’s published tariff rate code. Refer to Appendix A for further information.
11	Site Status Code	Char(1)	<b>Mandatory field</b> – Standardized code representing a site’s status relative to the tariff bill period. Refer to Appendix A for further information.
12	Usage Total	Number(14,4)	<b>Mandatory field</b> – Usage check total for a tariff bill period. This must equal the sum of all Usage Amount fields in Usage Determinant records for a tariff bill period including cancels and rebills. Positive and negative values are acceptable.
13	Usage UOM	Varchar(4)	<b>Mandatory field</b> – Unit of measure for usage. If Commodity Code = “EL” this field = “KWH”. If Commodity Code = “NG” this field = “GJ”.
14	Charge Total	Number(11,2)	<b>Mandatory field</b> – Charge check total for a tariff bill period. This must equal the sum of all Charge Amount fields in Tariff Charge records for a tariff bill period. Positive and negative values are acceptable. If a tariff period has no Tariff Charge records, this field = “0”.

### Production rules

The following production rules apply to the Tariff Bill Period Header record:

- (1) Data contained within the Tariff Bill Period Header must adhere to the field level rules stated in Table 4-4.
- (2) A tariff bill file can contain multiple Tariff Bill Period Header records per site.
- (3) Gaps are permitted between tariff bill periods for a site only if the gap is supported by an SRO transaction followed by an SRN transaction for that site.
- (4) Tariff bill periods having a Cancel Indicator field equal to “N” cannot overlap unless the tariff bill period being overlapped has been cancelled.
- (5) The Tariff Bill Period End Date field must be equal to the effective date of a tariff billing event, as outlined in Table 3-1.
- (6) Unless only one-time charges are being presented for a site, a distributor must present a Tariff Bill Period Header record for each site in the tariff bill file, even if no charges apply to a site for that specific tariff bill period, to support the disclosure of site status during the period and to support the audit trail of potential cancels and rebills.

#### 4.3.5 Usage Determinant record

The Usage Determinant record of the tariff bill file is a hierarchical child of the Tariff Bill Period Header record and is the physical representation of the usage

period. This record provides detailed usage for the tariff bill period. The contents of the Usage Determinant record are provided in Table 4-5.

**Table 4-5. Usage Determinant record content**

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Record ID	Number(15)	<b>Mandatory field</b> – A unique reference ID for each Usage Determinant record produced by a distributor to allow the distributor or retailer to refer to the specific data record. This value must be unique to a distributor.
2	Parent ID	Number(15)	<b>Mandatory field</b> – Unique reference ID for the parent Tariff Bill Period Header record. This must match the Record ID field presented in the associated Tariff Bill Period Header record.
3	Record Type	Char(2)	<b>Mandatory field</b> – Code to indicate record type. Value must equal “DU”.
4	Site ID	Site ID format	<b>Mandatory field</b> – Unique identifier representing a site in the electric or gas market. This must equal the Site ID field in the associated Site Header record. Refer to Appendix A for further information.
5	Usage Period Start Date	Date format	<b>Mandatory field</b> – Full-day representation of the start date (inclusive) of a usage period bound by the tariff bill period.
6	Usage Period End Date	Date format	<b>Mandatory field</b> – Full-day representation of the end date (inclusive) of a usage period, bound by the tariff bill period.
7	Cancel Indicator	Char(1)	<b>Mandatory field</b> – “Y” or “N” value indicating a cancelled record. “Y” =Yes. “N”=No.
8	Meter Type Code	Char(1)	<b>Mandatory field</b> – Code to indicate meter type. Refer to Appendix A for further information.
9	Meter Number	Varchar(20)	<b>Conditional field</b> – Unique identifier within a distributor’s zone representing a meter. If Meter Type Code = “C” this field is mandatory.
10	Number of Dials	Number(3)	<b>Conditional field</b> – Value representing the number of dials on a meter. The value must represent a positive integer. If Site Status Code = “E” and Meter Type Code = “C” this field is mandatory.
11	From Reading	Number(14,4)	<b>Conditional field</b> – Value representing the start dial read for the usage period. If Site Status Code = “E” and Meter Type Code = “C” this field is mandatory.
12	From Reading Code	Char(1)	<b>Conditional field</b> – Standardized reading type code to indicate type of reading. Refer to Appendix A for further information. If Site Status Code = “E” and Meter Type Code = “C” this field is mandatory.
13	To Reading	Number(14,4)	<b>Conditional field</b> – Value representing the end dial read value for the usage period. If Site Status Code = “E” and Meter Type Code = “C” this field is mandatory.
14	To Reading Code	Char(1)	<b>Conditional field</b> – Standardized reading type code to indicate type of reading. Refer to Appendix A for further information. If Site Status Code = “E” and Meter Type Code = “C” this field is mandatory.

Element Sequence	Field (in sequence)	Data Type/Size	Description
15	Billing Multiplier	Number(14,9)	<b>Conditional field</b> – Billing multiplier is the factor that is multiplied by the meter dial difference to determine a usage value. This value must be a positive number. If Site Status Code = "E" and Meter Type Code = "C" this field is mandatory.
16	Usage Amount	Number(13,4)	<b>Mandatory field</b> – Value representing the number of units consumed. Positive and negative values are acceptable. If Meter Type = "I" this represents the total measured usage for the usage period. If Meter Type = "C" then, where metering information has been provided, Usage Amount must be within 0.5 kWh or one GJ of the result of the following calculation: (To Reading – From Reading) ´ Billing Multiplier where To Reading is greater than From Reading, or (10 to the power of the number of dials + To Reading – From Reading) ´ Billing Multiplier where To Reading is less than From Reading; otherwise Usage Amount must equal "0" If Meter Type = "U" this represents deemed usage. If Meter Type = "T" this represents total usage recorded for all meters attributed to the totalized site. If Meter Type = "S" this represents net consumption for primary and subtract meters attributed to the site. If Cancel Indicator = "Y" Usage Amount must be expressed as a negative value.
17	Usage UOM	Varchar(4)	<b>Mandatory field</b> – Unit of measure for usage. If Commodity Code = "EL" Usage UOM must equal "KWH". If Commodity Code = "NG" Usage UOM must equal "GJ".

### Production rules

The following production rules apply to the Usage Determinant record:

- (1) Data contained within the Usage Determinant record must adhere to the field level rules stated in Table 4-5.
- (2) A tariff bill file can contain multiple Usage Determinant records per tariff bill period per site.
- (3) Usage periods having a Cancel Indicator field equal to "N" cannot overlap unless the usage period being overlapped has been cancelled.
- (4) Usage reported for a totalized site consisting of interval meters, as prescribed in Section 4.3.1(6)(a), must equal the total usage of all meters for that site.
- (5) The usage period start and end dates need not align with the charge period start and end dates within a tariff bill period, except where a tariff billing event replaces such alignment.

- (6) If a physical meter read (DCM) is allocated into smaller components, the sum of all the smaller components must add up to the original usage amount in the DCM, even if they span multiple tariff bill files.
- (7) One or more Usage Determinant records are required for each tariff bill period provided.
- (8) (Gas only) Totalized usage reported for a site must be reconcilable to the sum of the metered usage values reported for the site in the metering period.
- (9) (Gas only) Subtract usage reported for a site must be reconcilable to metered usage reported for the site.

#### 4.3.6 Demand Determinant record

The Demand Determinant record of the tariff bill file is a hierarchical child of the Tariff Bill Period Header record and is the physical representation of the demand relevant to a tariff bill period. This record provides detailed demand information upon which tariff charges for the tariff bill period are determined. The contents of the Demand Determinant record are provided in Table 4-6.

Table 4-6. Demand Determinant record content

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Record ID	Number(15)	<b>Mandatory field</b> – A unique reference ID for each Demand Determinant record produced by a distributor to allow the distributor or retailer to refer to the specific data record. This value must be unique to a distributor.
2	Parent ID	Number(15)	<b>Mandatory field</b> – Unique reference ID for the parent tariff bill period ID. This must match the Record ID presented in the associated Tariff Bill Period Header record.
3	Record Type	Char(2)	<b>Mandatory field</b> – Code to indicate record type. This value must equal “DD”.
4	Site ID	Site ID format	<b>Mandatory field</b> – Unique identifier representing a site in the electric or gas market. This must equal the Site ID presented in the associated Site Header record. Refer to Appendix A for further information.
5	Demand Period Start Date	Date format	<b>Mandatory field</b> – Start date (inclusive) of the demand period, bound by the tariff bill period.
6	Demand Period End Date	Date format	<b>Mandatory field</b> – End date (inclusive) of the demand period, bound by the tariff bill period.
7	Cancel Indicator	Char(1)	<b>Mandatory field</b> – “Y” or “N” value indicating a cancelled record. “Y” =Yes. “N”=No.
8	Demand Type Code	Number(4)	<b>Mandatory field</b> – Standardized code indicating the demand type. Refer to Appendix A for further information.

Element Sequence	Field (in sequence)	Data Type/Size	Description
9	Demand Value	Number(10,4)	<b>Mandatory field</b> – Value indicating the demand as per the type. Positive and negative values are acceptable. Negative values represent cancels; If Meter Type = “U” this must represent deemed demand. If Meter Type = “I” or “C” this must represent metered demand.
10	Demand UOM	Varchar(4)	<b>Mandatory field</b> – Standardized code representing the unit of measure. Refer to Appendix A for further information.
11	Meter Number	Varchar(20)	<b>Conditional field</b> – Unique identifier within a distributor’s zone representing a meter. If Meter Type Code = “C” and Demand Type Code = “4080 - Metered” this field is mandatory, otherwise it must equal [null].
12	Ratchet Date Time	Date time format	<b>Conditional field</b> – Date and time ratchet value was established. The date and time in this field must occur prior to the tariff bill file Date Created. If Demand Type Code = “Ratchet,” “Transmission Ratchet,” “Distribution Ratchet” or “Service Ratchet” this field is mandatory, otherwise it must equal [null]. If Meter Type Code = “C” report the meter reading end date of the period within which the ratchet was established.
13	Ratchet Period Months	Number(2)	<b>Conditional field</b> –The number of months that the ratchet is set for according to a distributor’s published tariff. If Demand Type Code = “Ratchet,” “Transmission Ratchet,” “Distribution Ratchet” or “Service Ratchet” this field is mandatory, otherwise it must equal [null].
14	Power Factor	Number(7,6)	<b>Conditional field</b> – Power factor value as reported by distributor. This value must reflect Power Factor application, where applicable. If a conversion is not required between Measured Demand UOM and Component Billed Quantity UOM or tariff charges do not depend on a Power Factor conversion, this must equal [null]. If Commodity Code = “NG” then Power Factor must equal [null].
15	Demand Contract End Date	Date format	<b>Conditional field</b> – Contract end date as per distributor or ISO. If Demand Type = “Contract,” “Transmission Contract,” “Distribution Contract” or “Service Contract” and the contract is not an evergreen contract, this field must be populated with the contract end date, otherwise = [null].

### Production rules

The following production rules apply to the Demand Determinant record:

- (1) Data contained within the Demand Determinant record must adhere to the field level rules stated in Table 4-6.
- (2) The following billing demand determinants must be disclosed per tariff bill period per site to support tariff charges according to a distributor’s published tariff:
  - (a) billing demand; or
  - (b) transmission billing demand; or

- (c) distribution billing demand; or
  - (d) service billing demand; or
  - (e) a combination of transmission billing and distribution billing demand; or
  - (f) a combination of transmission billing, distribution billing and service billing demand
- (3) All relevant demand determinants used in the derivation of those billing demand determinants must also be disclosed.
  - (4) Demand Determinant records having a Cancel Indicator field equal to “N” cannot overlap unless the Demand Determinant record being overlapped has been cancelled.
  - (5) (Electric only) Demand reported for a totalized site consisting of interval meters, as prescribed in Section 4.3.1(6)(a), must equal the total demand of all meters for that site.
  - (6) Where demand determinants do not apply, this record will be absent from the tariff bill period.
  - (7) (Gas only) Totalized demand reported for a site must be reconcilable to the maximum active demand reported for the site in the metering period.
  - (8) (Gas only) Metered demand reported for a site must be reconcilable to the maximum active demand reported for the site.

#### 4.3.7 Miscellaneous Determinant record

The Miscellaneous Determinant record of the tariff bill file is a hierarchical child of the Tariff Bill Period Header record and is the physical representation of determinants exclusive of demand and usage relevant to a tariff bill period. This record provides detailed determinant information upon which tariff charges for the tariff bill period can be based. The contents of the Miscellaneous Determinant record are provided in Table 4-7.

Table 4-7. Miscellaneous Determinant record content

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Record ID	Number(15)	<b>Mandatory field</b> – A unique reference ID for each Miscellaneous Determinant record produced by a distributor to allow the distributor or retailer to refer to the specific data record. This value must be unique to a distributor.
2	Parent ID	Number(15)	<b>Mandatory field</b> – Unique reference ID for the parent tariff bill period ID. This must match the Record ID presented in the associated Tariff Bill Period Header record.
3	Record Type	Char(2)	<b>Mandatory field</b> – Code to indicate record type. This value must equal “DM”.

Element Sequence	Field (in sequence)	Data Type/Size	Description
4	Site ID	Site ID format	<b>Mandatory field</b> – Unique identifier representing a site in the electric or gas market. This must equal the Site ID presented in the associated Site Header record. Refer to Appendix A for further information.
5	Miscellaneous Determinant Period Start Date	Date format	<b>Mandatory field</b> – Start date (inclusive) of the miscellaneous determinant period, bound by the tariff bill period.
6	Miscellaneous Determinant Period End Date	Date format	<b>Mandatory field</b> – End date (inclusive) of the miscellaneous determinant period, bound by the tariff bill period.
7	Cancel Indicator	Char(1)	<b>Mandatory field</b> – “Y” or “N” value indicating a cancelled record. “Y” =Yes. “N”=No.
8	Unit Quantity	Number(12,4)	<b>Mandatory field</b> – Number of units used for determination of charges. Positive and negative values are acceptable. Negative values represent cancels: If Unit Quantity UOM = “BFLAG” this field must equal “0,” “1” or “-1” (“0”=no, “1”=yes, “-1” is reserved for cancellation of a value of “1”).
9	Unit Quantity UOM	Varchar(7)	<b>Mandatory field</b> – Standardized code representing the unit of measure. Refer to Appendix A for further information.
10	Miscellaneous Determinant Code	Varchar(4)	<b>Mandatory field</b> – Standardized code to represent a miscellaneous determinant disclosed in a tariff bill file. Refer to Appendix A for further information.

### Production rules

The following production rules apply to the Miscellaneous Determinant record:

- (1) Data contained within the Miscellaneous Determinant record must adhere to the field level rules stated in Table 4-7.
- (2) A tariff bill file can contain multiple Miscellaneous Determinant records per tariff bill period per site.
- (3) When utilizing the Boolean Flag unit of measure to indicate exemption or other information with respect to site or other tariff charges, the Unit Quantity field should be populated with “1” or “0” and the Unit Quantity UOM field should be populated with “BFLAG.”
- (4) Where Miscellaneous Determinants do not apply, this record will be absent from the tariff bill period.

#### 4.3.8 Tariff Charge record

The Tariff Charge record of the tariff bill file is a hierarchical child of the Tariff Bill Period Header record and is the physical representation of the tariff charges that apply to the site. This record provides detailed tariff charge information for a tariff bill period based on the determinants presented in the Demand Determinants,

Usage Determinants and Miscellaneous Determinants records. The contents of the Tariff Charge record are provided in Table 4-8.

**Table 4-8. Tariff Charge record content**

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Record ID	Number(15)	<b>Mandatory field</b> – A unique reference ID for each Tariff Charge record produced by a distributor to allow the distributor or retailer to refer to the specific data record. This value must be unique to a distributor.
2	Parent ID	Number(15)	<b>Mandatory field</b> – Unique reference ID for the parent tariff bill period ID. This must match the Record ID presented in the associated Tariff Bill Period Header record.
3	Record Type	Char(2)	<b>Mandatory field</b> – Code to indicate record type. This value must equal "CH".
4	Site ID	Site ID format	<b>Mandatory field</b> – Unique identifier representing a site in the electric or gas market. This must equal the Site ID presented in the associated Site Header record. Refer to Appendix A for further information.
5	Charge Period Start Date	Date format	<b>Mandatory field</b> – Start date (inclusive) of the applicable charge period bound by the tariff bill period.
6	Charge Period End Date	Date format	<b>Mandatory field</b> – End date (inclusive) of the applicable charge period bound by the tariff bill period.
7	Cancel Indicator	Char(1)	<b>Mandatory field</b> – "Y" or "N" value indicating a cancelled record. "Y" =Yes. "N"=No.
8	Tariff Cross Reference Code	Varchar(9)	<b>Mandatory field</b> – Code to identify the tariff cross-reference code applicable to the tariff bill period. The tariff cross-reference code provided must match the distributor's published tariff cross-reference code. Refer to Appendix A for further information.
9	Component Category Code	Number(4)	<b>Mandatory field</b> – Standardized code representing a charge category. Refer to Appendix A for further information.
10	Component Basis Code	Char(1)	<b>Mandatory field</b> – Standardized code to subdivide a charge category. Refer to Appendix A for further information.
11	Component Type Code	Varchar(4)	<b>Mandatory field</b> – Standardized code to represent a charge component type. Refer to Appendix A for further information.
12	Component Step Number	Number(3)	<b>Mandatory field</b> – Numeric value starting at 1 indicating the order in which charges are calculated. If the published tariff has only one charge component, this must = "1" If Component Step Number is > 1, the component Tariff Charge record must be preceded by a continuous series of steps for the same component type code.
13	Component Billed Quantity	Number(15,6)	<b>Mandatory field</b> – Number of units used in determination of the charge step. Positive and negative values are acceptable. Negative values represent cancels.



Element Sequence	Field (in sequence)	Data Type/Size	Description
14	Component Billed Quantity UOM	Varchar(7)	<b>Mandatory field</b> – Standardized code representing the unit of measure. Refer to Appendix A for further information. If Component Billed Quantity value is the result of a calculation, UOM must equal "CALC". If Component Basis Code = "D" the Component Billed Quantity UOM must equal a valid demand UOM (refer to Table A5-13 in Appendix A5.16). If Component Basis Code = "E" the Component Billed Quantity UOM must equal a valid usage UOM (refer to Table A5-5 in Appendix A5.8). If any other Component Basis Code is presented, the Component Billed Quantity UOM must equal a valid unit quantity UOM and billed quantity UOM (refer to Table A5-14 in Appendix A5.17).
15	Time Calculation Type	Char(1)	<b>Mandatory field</b> – A value indicating whether a particular charge is expressed as a daily, monthly or period charge. ("Period" means that the charge covers the entire charge period.) "D" = Daily; "M" = Monthly; "P" = Period.
16	Time Factor	Number(9,6)	<b>Mandatory field</b> – Numeric value representing unit of time for a charge. If Time Calculation Type = "D" this value must be presented as an integer greater than or equal to 1. If Time Calculation Type = "M" this value must be greater than 0. If Time Calculation Type = "P" this value must be equal to 1.
17	Component Unit Price	Number(19,12)	<b>Mandatory field</b> – Numeric value representing the price for an individual unit of measure. This value must be consistent with a distributor's filed tariff or the provincial carbon levy on natural gas and must be expressed in the equivalent dollar value. <sup>7</sup>
18	Charge Amount	Number(11,2)	<b>Mandatory field</b> – Numeric value representing the charge amount exclusive of GST. This value must be within one dollar of the result of the following calculation: Component Unit Price x Time Factor x Component Billed Quantity.
19	GST Exemption Indicator	Char(1)	<b>Mandatory field</b> – Y/N value indicating whether a particular charge item (not a customer) is GST exempt. "Y"=Yes; "N"=No.

### Production rules

The following production rules apply to the Tariff Charge record:

- (1) Data contained within the Tariff Charge record must adhere to the field level rules stated in Table 4-8.
- (2) A tariff bill file can contain multiple charge periods per tariff bill period per site.
- (3) Charge periods identified as originals (i.e. Cancel Indicator field = "N") cannot overlap with other original charge periods of the same component

<sup>7</sup> Distributors are exempt from populating a component unit price with a value consistent with an REA's filed tariff where doing so would prevent the distributor from conforming to the following rule: (component billed quantity x time factor x component unit price) = charge amount.

charge (combination of Tariff Cross-Reference Code field, Component Category field, Component Basis Code field, Component Type Code field and Component Step Number field) for the same tariff bill period.

- (4) The charge period start and end dates need not align with the usage period start and end dates within a tariff bill period.
- (5) The charge period will not contain any non-site-specific charges (e.g. late payment interest, penalties or charges not attributable to a site).
- (6) Where tariff charges do not apply (i.e. zero billed quantity or unit price), this record may be absent from the tariff bill period.
- (7) Charge period gaps within a tariff bill period must not exist for a single component charge (combination of Tariff Cross-Reference Code, Component Category Code, Component Type Code, Component Basis Code and Step Number fields) having a component basis code of “D” or “E.”
- (8) Tariff Charge record presentation must adhere to a distributor’s Commission-approved and published tariff (i.e. Component Category Code, Component Basis Code, Component Step Number, Component Billed Quantity UOM and Component Unit Price fields for each charge detail record must correspond to the published tariff structure).

#### 4.3.9 One-Time Charge record

The One-Time Charge record of the tariff bill file is the hierarchical child of the Site Header record and is the physical representation of a site’s applicable one-time charges. This record provides detailed one-time charge information for charges incurred during the current billing period and/or, in some cases, a prior billing period. The contents of the One-Time Charge record are provided in Table 4-9.

Table 4-9. One-Time Charge record content

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Record ID	Number(15)	<b>Mandatory field</b> – A unique reference ID for each One-Time Charge record produced by a distributor to allow the distributor or retailer to refer to the specific data record. This value must be unique to a distributor.
2	Parent ID	Number(15)	<b>Mandatory field</b> – Unique reference ID for the parent Site Header record. This must match the Record ID presented in the associated Site Header record.
3	Record Type	Char(2)	<b>Mandatory field</b> – Code to indicate record type. This value must equal “OC”.
4	Site ID	Site ID format	<b>Mandatory field</b> – Unique identifier representing a site in the electric or gas market. This must equal the Site ID presented in the associated Site Header record. Refer to Appendix A for further information.
5	Charge Date	Date format	<b>Mandatory field</b> – Date one-time charge occurred.
6	Cancel Indicator	Char(1)	<b>Mandatory field</b> – “Y” or “N” value indicating a cancelled record. “Y” =Yes. “N”=No.

Element Sequence	Field (in sequence)	Data Type/Size	Description
7	One-Time Charge Reference ID	Number(15)	<b>Conditional field</b> – Record ID of a previous One-Time Charge record being cancelled. If Cancel Indicator = “Y” this field is mandatory; otherwise this field is [null].
8	Cancel Reason Code	Number(4)	<b>Conditional field</b> – Standardized code indicating a reason for sending a cancel. Refer to Appendix A for further information. If Cancel Indicator = “Y” this field is mandatory; otherwise this field is [null].
9	One-Time Charge Code	Varchar(4)	<b>Mandatory field</b> – Standardized code for one-time charges. Refer to Appendix A for further information.
10	Charge Amount	Number(11,2)	<b>Mandatory field</b> – Numeric value representing the charge amount exclusive of GST. Positive and negative values are acceptable.
11	GST Exemption Indicator	Char(1)	<b>Mandatory field</b> – Y/N value indicating a GST exempt charge. “Y”=Yes; “N”=No.

### Production rules

The following production rules apply to the One-Time Charge record:

- (1) Data contained within the One-Time Charge record must adhere to the field level rules stated in Table 4-9.
- (2) A tariff bill file can contain multiple One-Time Charge records per site.
- (3) One-time charge records identified as originals (i.e. Cancel Indicator field = “N”) cannot overlap with other original one-time charges of the same one-time charge code for the same site for the same day.<sup>8</sup>
- (4) Where tariff charges apply, the One-Time Charge records disclosed in a tariff bill file should fall within the current billing period dates specified in the Site Header record. One-time charges for a previous billing period could be presented in a subsequent billing period but should only occur on an exception basis, or in the case where a cancel and rebill is for periods beyond the distributors’ data retention period as required under Section 5.4.4.
- (5) Where a one-time charge is to recover costs for service work (e.g. energize requests) requested by a retailer who is no longer the retailer of record by the time the work is completed, the One-Time Charge record will be sent to the requesting retailer.

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<sup>8</sup> Circumstances may exist where multiple one-time charges of the same one-time charge code for the same site are required on the same day. In this instance, a distributor may send these charges to a retailer but the retailer has recourse under the Tariff Billing Dispute (TBD) transaction to confirm the validity of these charges.

- (6) If a site has no one-time charges, this record will be absent from the tariff bill file for that specific site.

#### 4.3.10 File Trailer record

The File Trailer record of a tariff bill file contains summary information necessary to validate information contained within the tariff bill file. The contents of the File Trailer record are provided in Table 4-10.

Table 4-10. File Trailer record content

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Record ID	Number(15)	<b>Mandatory field</b> – A unique reference ID for each tariff bill File Trailer record produced by a distributor to allow the distributor or retailer to refer to the specific data record. This value must be unique to a distributor.
2	Parent ID	Number(15)	<b>Mandatory field</b> – Unique reference ID for the parent Tariff File Header record. This must match the Record ID presented in the associated Tariff File Header record.
3	Record Type	Char(2)	<b>Mandatory field</b> – Code to indicate record type. This code must equal "FT".
4	File Record Count	Number(9)	<b>Mandatory field</b> – Count of the number of records (including Tariff File Header and File Trailer records) in the tariff bill file.
5	Charge Total	Number(11,2)	<b>Mandatory field</b> – Charge check total for the tariff bill file. This must equal the sum of all Charge Amount fields in both Tariff Charge and One-Time Charge records within the tariff bill file, including cancels and rebills. Positive and negative values are acceptable.

#### Production rules

The following production rules apply for the File Trailer record:

- (1) Data contained within the File Trailer record must adhere to the field level rules stated in Table 4-10.
- (2) A tariff bill file must contain only one File Trailer record.

#### 4.4 Tariff bill accept (TBA) transaction

The TBA transaction enables a retailer to inform a distributor of positive retailer standard file format validation tests and retailer acceptance of a tariff bill file. If a TBA transaction is not sent from a retailer to a distributor within the prescribed timeframe as stated in Table 2-1, the distributor may proceed with distributor invoicing. The contents of the TBA transaction are provided in Table 4-11.

Table 4-11. Tariff bill accept (TBA) transaction content

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Transaction Abbreviation	Char(3)	<b>Mandatory field</b> – Transaction abbreviation. This code must equal "TBA".
2	Transaction ID	Number(15)	<b>Mandatory field</b> – Unique identifier for a TBA transaction. This identifier must be unique to a retailer.

Element Sequence	Field (in sequence)	Data Type/Size	Description
3	Sender ID	Retailer ID format	<b>Mandatory field</b> – Unique identifier for the sender. This identifier must equal that of the retailer sending the transaction. Refer to Appendix A for further information.
4	Distributor ID	Distributor ID format	<b>Mandatory field</b> – Unique identifier for the recipient. This identifier must equal that of the distributor, or agent of the distributor, receiving the transaction (i.e. the Sender ID from the Tariff File Header record of the applicable tariff bill file). Refer to Appendix A for further information.
5	Date Created	Date time format	<b>Mandatory field</b> – Date and time the TBA transaction was created or last modified.
6	Tariff Bill File Record ID	Number(15)	<b>Mandatory field</b> – Unique reference ID for the tariff bill file being accepted. This must equal the Record ID presented in the Tariff File Header record of the tariff bill file being accepted.

### Production rules

The following production rules apply for the TBA transaction:

- (1) Data contained within the TBA transaction must adhere to the field level rules stated in Table 4-11.
- (2) Retailers must submit the TBA transaction within the timeframe prescribed in Table 2-1.

#### 4.5 Tariff bill reject (TBR) transaction

The TBR transaction enables a retailer to inform a distributor of negative retailer standard file format validation test results and retailer rejection of the tariff bill file. If a TBR transaction is not sent from a retailer to a distributor within the timeframe prescribed in Table 2-1, the distributor will proceed with distributor invoicing. The contents of the TBR transaction are provided in Table 4-12.

Table 4-12. Tariff bill reject (TBR) transaction content

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Transaction Abbreviation	Char(3)	<b>Mandatory field</b> – Transaction abbreviation. This code must equal “TBR”.
2	Transaction ID	Number(15)	<b>Mandatory field</b> – Unique identifier for a TBR transaction. This identifier must be unique to a retailer.
3	Sender ID	Retailer ID format	<b>Mandatory field</b> – Unique identifier for the sender. This identifier must equal that of the retailer sending the transaction. Refer to Appendix A for further information.
4	Distributor ID	Distributor ID format	<b>Mandatory field</b> – Unique identifier for the recipient. This identifier must equal that of the distributor, or agent of the distributor, receiving the transaction (i.e. the Sender ID from the Tariff File Header record of the applicable tariff bill file). Refer to Appendix A for further information.
5	Date Created	Date time format	<b>Mandatory field</b> – Date and time the TBR transaction was created or last modified.
6	Tariff Bill File Record ID	Number(15)	<b>Mandatory field</b> – Unique reference ID for the tariff bill file being rejected. This must equal the Record ID presented in the Tariff File Header record of the tariff bill file being rejected.
7	TBF Rejection Code	Number(4)	<b>Mandatory field</b> – Standardized code indicating the reason for rejecting a tariff bill file. Refer to Appendix A for further information.
8	Record ID	Number (15)	<b>Conditional</b> - Record ID of the first record within the tariff bill file that has failed a standard file format validation.  This field should equal the Record ID of the record in violation of a standard file format validation (with the exception of standard file format validation 1 and 2, where this field must be [null]).

### Production rules

The following production rules apply for the TBR transaction:

- (1) Data contained within the TBR transaction must adhere to the field level rules stated in Table 4-12.
- (2) Retailers must submit a TBR transaction within the timeframe prescribed in Table 2-1.

## 4.6 Tariff bill rejection notification (TRN) transaction

The TRN transaction enables a distributor to inform a retailer of the status of a TBR transaction. It is mandatory for a distributor to send this transaction to a retailer if a TBR transaction has been received from the retailer. The contents of the TRN transaction are provided in Table 4-13.

**Table 4-13. Tariff bill rejection notification (TRN) transaction content**

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Transaction Abbreviation	Char(3)	<b>Mandatory field</b> – Transaction abbreviation. This code must equal “TRN”.
2	Transaction ID	Number(15)	<b>Mandatory field</b> – Unique identifier for the TRN transaction. This identifier must be unique to a distributor.
3	Sender ID	Distributor ID format	<b>Mandatory field</b> – Unique identifier for the sender. This identifier must equal that of the distributor, or agent of the distributor, sending the transaction. Refer to Appendix A for further information.
4	Retailer ID	Retailer ID format	<b>Mandatory field</b> – Unique identifier for the recipient. This identifier must equal that of the intended retailer receiving the transaction. Refer to Appendix A for further information.
5	Date Created	Date time format	<b>Mandatory field</b> – Date and time the TRN transaction was created or last modified.
6	Transaction Reference ID	Number(15)	<b>Mandatory field</b> – Unique reference ID of the original TBR transaction. This value must equal the transaction ID of the TBR transaction being referenced.
7	Tariff Bill File Record ID	Number(15)	<b>Mandatory field</b> – Unique reference ID for the tariff bill file referred in the TBR transaction. This must match the Tariff Bill File Record ID presented in the TBR transaction.
8	Reject Notification Status Code	Char(1)	<b>Mandatory field</b> – Code representing the status of the referenced TBR transaction. If a distributor accepts the TBR transaction this must equal “A” otherwise it must equal “R”.

**Production rules**

The following production rules apply for the TRN transaction:

- (1) Data contained within the TRN transaction must adhere to the field level rules stated in Table 4-13.
- (2) Distributors must submit a TRN transaction within the timeframe prescribed in Table 2-1.

**4.7 Tariff bill dispute (TBD) transaction**

The TBD transaction enables a retailer to dispute tariff billing information delivered by a distributor in a tariff bill file at the tariff bill period level or one-time charge level. This transaction is utilized by a retailer to inform a distributor of standard file content validation test failures. A distributor is not obligated to build automated functionality to process this transaction and resolve retailer disputes. The contents of the TBD transaction are provided in Table 4-14.

**Table 4-14. Tariff billing dispute (TBD) transaction content**

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Transaction Abbreviation	Char(3)	<b>Mandatory field</b> – Transaction abbreviation. This code must equal “TBD”.
2	Transaction ID	Number(15)	<b>Mandatory field</b> – Unique identifier for the TBD transaction. This identifier must be unique to a retailer.
3	Sender ID	Retailer ID format	<b>Mandatory field</b> – Unique identifier for the sender. This identifier must equal that of the retailer sending the transaction. Refer to Appendix A for further information.
4	Distributor ID	Distributor ID format	<b>Mandatory field</b> – Unique identifier for the recipient. This identifier must equal that of the distributor, or agent of the distributor, receiving the transaction (i.e. the Sender ID from the Tariff File Header record of the applicable tariff bill file). Refer to Appendix A for further information.
5	Date Created	Date time format	<b>Mandatory field</b> – Date and time the TBD transaction was created or last modified.
6	Tariff Bill File Record ID	Number(15)	<b>Mandatory field</b> – Unique reference ID for the tariff bill file in which records are being disputed. This must match the Record ID presented in the Tariff File Header record of the tariff bill file being disputed.
7	Site ID	Site ID format	<b>Mandatory field</b> – Unique reference ID for the site for which disputed records apply. Refer to Appendix A for further information.
8	Tariff Bill Period Record ID	Number(15)	<b>Conditional field</b> – Unique reference ID for the tariff bill period being disputed. If disputing a tariff bill period, this field is mandatory and must equal the Record ID of the Tariff Bill Period Header record being disputed; otherwise it must be [null].
9	Record ID	Number(15)	<b>Optional field</b> – Record ID of the related tariff bill period child record in error.
10	One-Time Charge Record ID	Number(15)	<b>Conditional field</b> – Unique reference ID for the one-time charge being disputed. If disputing a One-Time Charge record, this field is mandatory and must equal the Record ID of the One-Time Charge record being disputed; otherwise it must be [null].
11	Dispute Code	Number(4)	<b>Mandatory field</b> – Standard code representing the reason for the dispute. Refer to Appendix A for further information.

### **Production rules**

The following production rules apply for the TBD transaction:

- (1) Data contained within the TBD transaction must adhere to the field level rules stated in Table 4-14.
- (2) The dispute code must be reported at the record level of a tariff bill file.
- (3) A TBD transaction must be created for each Tariff Bill Period Header record or One-Time Charge record found to be in error.

### **4.8 Tariff bill calendar file (TCF)**

The tariff bill calendar file provides a common format for distributors to disclose yearly tariff billing cycle schedules to retailers and must adhere to the performance



requirements prescribed in Table 2-1. Distributors must publish the tariff bill calendar file according to the file standards defined in Table 4-15.

**Table 4-15. Tariff bill calendar file (TCF) content**

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Distributor ID	Distributor ID format	<b>Mandatory field</b> – Unique identifier for a distributor. This identifier must equal that of the distributor, or agent of the distributor, producing the file. Refer to Appendix A for further information.
2	Billing Month	Number (6)	<b>Mandatory field</b> – Unique identifier for a bill month period. This unique identification must be in the following format: YYYYMM, where YYYY is a four-digit year and MM is a two-digit month. In cases where a billing period for a billing cycle spans multiple months, this value must equal the latest month of the billing period.
3	Billing Cycle	Varchar(9)	<b>Mandatory field</b> – Unique identifier for a distributor's billing cycle.
4	Scheduled Tariff Bill File Publish Date	Date format	<b>Mandatory field</b> – Scheduled date for tariff bill file publication.
5	Scheduled Read Date	Date format	<b>Optional field</b> – The date that sites will be estimated up to for a billing run if reads are not received or are shorter than 27 days in length. Except where a scheduled read date is not known (limited to irrigation sites or where a distributor depends on customer supplied reads (e.g. REAs)), this field should be populated with the cycle's scheduled read date.
6	Read Release Date	Date format	<b>Optional field</b> – Date the reads are scheduled to be released to the market.
7	Irregular Bill Period Type Code	Number(4)	<b>Mandatory field</b> – Standardized code indicating the irregular bill period type. Refer to Appendix A for further information.

### **Production rules**

The following production rules apply for the tariff bill calendar file:

- (1) Data contained within the tariff bill calendar file must adhere to the field level rules stated in Table 4-15.
- (2) Only one record per billing cycle per scheduled billing period can be included in the file.
- (3) The span of time between two successive scheduled tariff bill publish dates for each billing cycle must not be less than 27 days or greater than 35 days, except where that cycle is identified as having an irregular bill period type code other than “9000.”
- (4) The Scheduled Read Date field must be populated with the cycle’s scheduled read date, except in the case of irrigation sites or where a distributor depends on customer supplied reads.

- (5) Where the Scheduled Read Date field is not populated with the cycle's scheduled read date, as in the exception above, a distributor is expected to estimate up to the point in time defined by the Scheduled Tariff Bill File Publish Date field minus a maximum of six business days (date upon which the scheduled read date would be defined if practices supported it).
- (6) The combination of the Billing Cycle field and Billing Month field disclosed in a distributor's tariff bill calendar file must be unique.
- (7) An irregular (seasonal) billing cycle is one that exceeds the 27 to 35 day span of time between two successive scheduled tariff bill publish dates.

#### 4.9 Site cycle catalogue file (SCF)

The site cycle catalogue file provides a common format for distributors to disclose site and billing cycle data to a retailer to enable the retailer to cross-reference sites to a distributor's billing cycle. Distributors must publish the site cycle catalogue file according to the file standards defined in Table 4-16.

Table 4-16. Site cycle catalogue file (SCF) content

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Distributor ID	Distributor ID format	<b>Mandatory field</b> – Unique identifier for a distributor. This identifier must equal that of the distributor, or agent of the distributor, producing the file. Refer to Appendix A for further information.
2	Site ID	Site ID format	<b>Mandatory</b> – Unique identifier representing a site in the electric or gas market. Refer to Appendix A for further information.
3	Billing Cycle	Varchar(9)	<b>Mandatory field</b> – Unique identifier for a distributor's billing cycle.
4	Future Billing Cycle	Varchar(9)	<b>Conditional field</b> – Unique identifier for a distributor's billing cycle indicating a site's future billing cycle. In refreshing its site cycle catalogue, if a distributor is aware that a site will change to a different billing cycle, this field is mandatory as it provides advance notice of the site's future cycle assignment; otherwise it must be [null].
5	Future Effective Date	Date format	<b>Conditional field</b> – Effective date of the future billing cycle. If Future Billing Cycle is populated, this field is mandatory; otherwise it must be [null].

#### Production rules

The following production rules apply for the site cycle catalogue file:

- (1) Data contained within the site cycle catalogue file must adhere to the field level rules stated in Table 4-16.
- (2) Only one record per site can be included in the file.

#### 4.10 Customer switch advice (CSA) transaction

- (1) The CSA transaction provides a mechanism for retailers to advise distributors of either:

- (a) a customer switch at a specific site, or
- (b) retailer termination of a contract for provision of electric services at a specific site.

(2) The contents of the CSA transaction are provided in Table 4-17.

**Table 4-17. Customer switch advice (CSA) transaction content**

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Transaction Abbreviation	Char(3)	<b>Mandatory field</b> – Transaction abbreviation. This code must equal “CSA”.
2	Transaction ID	Number(15)	<b>Mandatory field</b> – Unique identifier for the CSA transaction. This value must be unique to a retailer.
3	Sender ID	Retailer ID format	<b>Mandatory field</b> – Unique identifier for the sender. This identifier must equal that of the retailer sending the transaction. Refer to Appendix A for further information.
4	Distributor ID	Distributor ID format	<b>Mandatory field</b> – Unique identifier for the recipient. This identifier must equal that of the distributor, or agent of the distributor, receiving the transaction. Refer to Appendix A for further information.
5	Date Created	Date time format	<b>Mandatory field</b> – Date and time the CSA transaction was created or last modified.
6	Site ID	Site ID format	<b>Mandatory field</b> – Unique identifier representing a site in the electric or gas market. Refer to Appendix A for further information.
7	Requested Effective Date	Date format	<b>Mandatory field</b> – Date the retailer requests a break in tariff charges and subsequent off-cycle presentation of the site (i.e. occurrence of a tariff bill file event at the end (23:59:59) of the Requested Effective Date).

**Production rules**

The following production rules apply for the CSA transaction:

- (1) Data contained within a CSA transaction must adhere to the field level rules stated in Table 4-17.
- (2) A valid CSA transaction will be effective at the end of the day of receipt (e.g. if the CSA is received at 16:00:00 on January 20, the tariff bill file event will be effective at 23:59:59 on January 20), with the following two exceptions:
  - (a) The end of the day on which the CSA is processed by the distributor where the CSA transaction is received after a distributor’s daily transaction processing deadline and system limitations prevent the distributor from backdating the effective date of the transaction (e.g. if the CSA is received at 23:00:00 on January 20 and processed at 08:00:00 on January 23, the tariff bill file event will be effective at 23:59:59 on January 23).

- (b) The end of the requested effective date if the distributor accepts backdated CSA transactions and the requested effective date is within the boundaries established by the distributor.
- (3) A CSA transaction must be accompanied with a UCI transaction, within the timeframe prescribed in Table 2-1, having the appropriate changes to customer information.
- (4) Where more than one CSA transaction is received by a distributor for the same site to be effective on the same day, the first valid CSA transaction to arrive must be processed as a tariff billing event.
- (5) A UCI transaction must be processed by a distributor when it accompanies a CSA transaction.

#### 4.11 Customer switch receipt (CSR) transaction

- (1) The CSR transaction provides a mechanism for distributors to notify retailers that the CSA has been either:
  - (a) accepted and processed, or
  - (b) rejected
- (2) The contents of the CSR transaction are provided in Table 4-18.

**Table 4-18. Customer switch receipt (CSR) transaction content**

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Transaction Abbreviation	Char(3)	<b>Mandatory field</b> – Transaction abbreviation. This code must equal “CSR”.
2	Transaction ID	Number(15)	<b>Mandatory field</b> – Unique identifier for the CSR transaction. This value must be unique to a distributor.
3	Sender ID	Distributor ID format	<b>Mandatory field</b> – Unique identifier for the sender. This identifier must equal that of the distributor, or agent of the distributor, sending the transaction. Refer to Appendix A for further information.
4	Retailer ID	Retailer ID format	<b>Mandatory field</b> – Unique identifier for the recipient. This value must equal that of the intended retailer receiving the transaction. Refer to Appendix A for further information.
5	Date Created	Date time format	<b>Mandatory field</b> – Date and time the CSR transaction was created.
6	Transaction ID Reference	Number(15)	<b>Mandatory field</b> – Transaction ID of the original CSA transaction.
7	CSA Transaction Status Code	Char (4)	<b>Mandatory field</b> – Standard code to indicate acceptance or rejection of the customer switch transaction. Refer to Appendix A for further information.
8	Site ID	Site ID format	<b>Mandatory</b> – Unique identifier representing a site in the market. Refer to Appendix A for further information.

Element Sequence	Field (in sequence)	Data Type/Size	Description
9	Effective Date	Date format	<b>Conditional field</b> – Tariff Bill Period End Date resulting from CSA processing. If CSA Transaction Status Code = 0000, Effective Date is mandatory. If CSA Transaction Status Code <sup>1</sup> 0000, Effective Date must equal [null].

### Production rules

The following production rules apply for the CSR transaction:

- (1) Data contained within CSR transaction must adhere to the field level rules stated in Table 4-18.
- (2) Delivery of the transaction will be the day following CSA processing by the distributor (e.g. if the CSA is processed on January 23, the CSR transaction should be issued on January 24).

#### 4.12 Tariff billing sites withheld (TSW) transaction

The TSW transaction is an optional transaction that enables a distributor to inform a retailer of sites withheld from presentation in a published tariff bill file in an automated fashion. This transaction can be utilized to communicate to a retailer failure of standard content validation tests and production failures for a specific site. It can also be used to communicate that a site is being withheld while investigations, adjustments or corrections are taking place that may impact the site's billing. The contents of the TSW transaction are provided in Table 4-19.

**Table 4-19. Tariff billing sites withheld (TSW) transaction content**

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Transaction Abbreviation	Char(3)	<b>Mandatory field</b> – Transaction abbreviation. This code must equal "TSW".
2	Retailer ID	Retailer ID Format	<b>Mandatory field</b> – Unique identifier for a retailer. This identifier must equal that of the retailer receiving the transaction.
3	Sender ID	Distributor ID Format	<b>Mandatory field</b> – Unique identifier for the sender. This identifier must equal that of the distributor, or agent of the distributor, sending the transaction. Refer to Appendix A for further information.
4	Date Created	Date time format	<b>Mandatory field</b> – Date the TSW transaction was created.
5	Record ID	Number(15)	<b>Mandatory field</b> – This must be a unique reference ID for each record produced by a distributor to allow the distributor or retailer to refer specifically to the data record.
6	Site ID	Site ID Format	<b>Mandatory</b> – Unique identifier representing a site in the market. Refer to Appendix A for further information.
7	Commodity Code	Char(2)	<b>Mandatory</b> – Standardized code representing commodity type. Refer to Appendix A for further information.
8	Zone ID	Zone ID Format	<b>Mandatory field</b> – Unique identifier for a zone within Alberta. Refer to Appendix A for further information.
9	Municipality ID	Number(4)	<b>Mandatory field</b> – Unique identifier representing a municipality in Alberta. Refer to Appendix A for further information.
10	REA Code	Char(4)	<b>Conditional field</b> – Unique identifier representing a valid REA in Alberta. Refer to Appendix A for further information. If site is not within an REA Zone this field is [null].
11	Billing Cycle	Varchar(9)	<b>Mandatory field</b> – A value representing the billing cycle for a site. This value must match a distributor's published billing cycle.
12	Site Withheld Reason Code	Varchar(4)	<b>Mandatory field</b> – Standardized code indicating a reason why a site is being withheld. Refer to Appendix A for further information.
13	Additional Site Information	Varchar(50)	<b>Optional field</b> – Free-form text field for providing additional site information.

### **Production rules**

If a distributor sends TSW transactions, the following production rules apply:

- (1) Data contained within the TSW transaction must adhere to the field level rules stated in Table 4-19.
- (2) Distributors must submit a TSW transaction on the same day as the tariff bill file.
- (3) A TSW transaction should be created for each reason code the site is being withheld.
- (4) Sites withheld are not included in the tariff bill file.

#### 4.13 Provincial carbon levy exempt (CLE) transaction and provincial carbon levy exempt notification (CLN) transaction (natural gas only)

As of January 1, 2017, the provincial carbon levy is in effect. Natural gas distributors must calculate and apply the provincial carbon levy to consumption billed within the TBF. Retailers must bill customers for the provincial carbon levy. If a customer demonstrates that they are exempt from paying the provincial carbon levy pursuant to the *Climate Leadership Act*, retailers must notify the distributor through electronic transmittal that the levy should not be applied.

Retailer notification via the provincial carbon levy exempt (CLE) transaction is required to the distributor in the following situations:

- where a retailer is submitting an SRR for a customer who has demonstrated that they are exempt;
- where the retailer of record has set up an account for a new customer who has a different exempt status than the retailer of record's previous customer at that site;
- where the retailer of record is made aware by an existing customer that a change in exempt status is required; and
- where the retailer of record has made an error in a customer's exempt status and needs future billing to be corrected.

If a CLE is not provided by a retailer, the distributor, after sending a successful SRN, must default that site to non-exempt.

Table 4-20. Provincial carbon levy exempt (CLE) transaction content

Element Sequence	Field	Data Type/Size	Description
1	Transaction Abbreviation	"CLE"	<b>Mandatory field</b> – Abbreviation for the transaction name.
2	Transaction ID	Number (15)	<b>Mandatory field</b> – Unique identifier for the CLE transaction. This value must be unique to a retailer.
3	Transaction Date Time	Date time format	<b>Mandatory field</b> – Later of the time the transaction was created or last modified.
4	Retailer ID	Retailer ID format	<b>Mandatory field</b> – Sender (retailer associated with the site).
5	Distributor ID	Distributor ID format	<b>Mandatory field</b> – Recipient (distributor for the site). See Appendix A Section A5.3.
6	Site ID	Site ID format	<b>Mandatory field</b> – Site for which Exempt Indicator field is requested. Unique identifier representing a site. See Appendix A Section A.4.6.6.
7	Exempt Indicator	Char(1)	<b>Mandatory field</b> – Values are: "Y" – Customer is provincial carbon levy exempt "N" – Customer is not provincial carbon levy exempt (remove provincial carbon levy exempt flag).

Element Sequence	Field	Data Type/Size	Description
8	Exempt Reason Code	Char(3)	<b>Conditional field</b> – If Exempt Indicator is “N”, the field is [null]. Otherwise the field is mandatory with one of the following reason codes: “001” – First Nations “002” – Government Entities “003” – Specified Gas Emitters “004” – Production Processes “005” – Raw materials / Diluent / Solvent

**Table 4-21. Provincial carbon levy exempt notification (CLN) transaction content**

Element Sequence	Field	Data Type/Size	Description
1	Transaction Abbreviation	“CLN”	<b>Mandatory field</b> – Abbreviation for the transaction name.
2	Transaction ID Reference	Number (15)	<b>Mandatory field</b> – Transaction ID of the original CLE transaction.
3	Transaction Date Time	Date time format	<b>Mandatory field</b> – Later of the time the transaction was created or last modified.
4	Distributor ID	Distributor ID format	<b>Mandatory field</b> – Sender (distributor for the site). See Appendix A Section A5.3.
5	Retailer ID	Retailer ID format	<b>Mandatory field</b> – Recipient (retailer associated with the site).
6	Site ID	Site ID format	<b>Mandatory field</b> – Site for which Exempt Indicator field is requested. Unique identifier representing a site. See Appendix A Section A.4.6.6.
7	Effective Date	Date format	<b>Conditional field</b> – Next calendar day after CLE is received. If Carbon Levy Exempt Transaction Status Code field = “0000”, this field is mandatory; otherwise this field is [null].
8	Carbon Levy Exempt Transaction Status Code	Char(4)	<b>Mandatory field</b> - The applicable codes in Appendix A, Table A5-26 must be used.

**Production rules**

- (1) A CLE cannot be back-dated.
- (2) When the retailer of record is made aware that a change in exempt status for a customer is required, the retailer will send a CLE to the distributor.
- (3) The distributor will send an acceptance or rejection of a CLE.
- (4) A CLN of acceptance will be effective the next calendar day after a CLE is received.
- (5) Tariff bill charges as of the effective date will reflect a change in exempt status.
- (6) The effective date of a CLN may trigger an off-cycle tariff billing event.



- (7) If the retailer of record determines that an error in exempt status has been made, the retailer of record will issue a CLE to correct the error. In the next TBF issued to the retailer of record, the tariff charge records will show the change has been applied from the effective date contained in a CLN.
- (8) If the retailer of record sends multiple CLEs for the same site on the same day, the distributor will process in order of receipt, and a corresponding CLN will be sent for each. The last successfully processed CLE will set the exempt status for the next calendar day.

## 5 Validation and exception handling

This section of the rule defines validation rules, validation outputs, exception handling procedures and cancel and rebill procedures for the tariff bill file and associated transactions.

### 5.1 Tariff bill file validation and notification

- (1) As prescribed in Section 2.8, distributors are obligated to validate tariff bill files according to standard file format and file content validation tests prior to transmission to retailers. Retailers, at their discretion, shall perform the validation and notification steps in accordance with the rules described in this section upon receipt of a tariff bill file. Retailers and distributors shall maintain adequate records to explain all validation failures.
- (2) Distributor release or withholding, in whole or in part, of a tariff bill file and retailer acceptance, rejection or partial acceptance of a tariff bill file will be based on the results of the following validation tests:
  - (a) File format – failure of any one of these validations will result in the rejection of the tariff bill file:
    - (i) Validate the format of the physical attributes of the tariff bill file, including field attributes (i.e. data type and size) and tariff bill file record structure.
    - (ii) Validate the content of the data as contained within the file in conjunction with billing history the retailer of record has compiled relating to the site, including mandatory and conditional field checks, file integrity checks (i.e. record counts and check totals), expected field values, cross field edits (e.g. conditional field population, gaps/overlaps for tariff periods contained within the file and expected record types) and site billing continuity (i.e. cancel and rebill integrity).
  - (b) File content – failure of any one of these validations will result in the dispute of a tariff billing period or one-time charge within the tariff bill file:
    - (i) Validate the content of a tariff bill file in conjunction with other data the retailer of record has compiled relating to the site, including enrolment, tariff billing and usage data.

### 5.1.1 Standard file format validation and notification

Retailers shall be restricted to performing only the procedures outlined in Table 5-1 to accept or reject a tariff bill file. Failure of at least one of these validation test procedures will result in tariff bill file rejection utilizing the TBR transaction described in Section 4.5. For the purpose of these validation tests, the term “expected” means the value contained in the field must be valid as per field level definitions in Section 4.3.

**Table 5-1. Standard file format validation tests**

Table Ref ID	Check	Test	Description	Outcome
1	File naming convention	Compare tariff bill file name with expected tariff bill file name.	Tariff bill file name must match tariff bill file name format.	Pass: Tariff bill file name = defined tariff bill file name format. Fail: Tariff bill file name $\neq$ defined tariff bill file name format.
2	File format	Compare file format with expected file format.	Tariff bill file format must match tariff bill file format.	Pass: Tariff bill file format = defined tariff bill file format. Fail: Tariff bill file format $\neq$ defined tariff bill file format.
3	Data type	Compare data type with expected data type.	Field-level data types must match field-level data types.	Pass: Field-level data types = defined field-level data types. Fail: Field-level data types $\neq$ defined field-level data types.
4	Record production sequence	Compare published record production sequence with expected record production sequence.	Tariff bill file records must be presented in the correct order according to the prescribed rules (i.e. Tariff File Header, Site Header, Tariff Bill Period Header, Usage Determinant, Demand Determinant, Miscellaneous Determinant, Tariff Charge, One-Time Charge, File Trailer).	Pass: Record production sequence = expected record production sequence. Fail: Record production sequence $\neq$ expected record production sequence.
5	Mandatory field logic	Compare tariff bill file mandatory fields with expected tariff bill file mandatory fields.	Mandatory fields must be populated according to prescribed rules.	Pass: All mandatory fields are populated. Fail: One or more mandatory fields are not populated.
6	Conditional field logic	Compare tariff bill file conditional fields with expected tariff bill file conditional fields.	Conditional fields must be populated according prescribed rules. The following fields are exempt from this test: REA Code, Power Factor.	Pass: All conditional fields are populated according to conditional field rules. Fail: One or more conditional fields are not populated according to conditional field rules.

Table Ref ID	Check	Test	Description	Outcome
7	Standard codes	Compare codes with expected standard codes.	Fields requiring standard code population must contain values that match standard codes.	Pass: Code value within standard code list. Fail: Code value not within standard code list.
8	Unique Tariff File Header record ID (with previous tariff bill files) <sup>9</sup>	Compare Tariff File Header Record ID field with Tariff File Header Record ID fields in previous tariff bill files.	Record ID field in the Tariff File Header record must be unique to a distributor.	Pass: Tariff File Header Record ID is unique for a distributor. Fail: Tariff File Header Record ID is not unique for a distributor.
9	Unique Record ID field (within tariff bill file)	Compare Record ID field with other Record ID fields reported in the tariff bill file.	All Record ID fields must be unique within a tariff bill file.	Pass: Record ID is unique within tariff bill file. Fail: Record ID is not unique within tariff bill file.
10	Parent ID	Compare Parent ID field with expected parent ID.	Parent ID field at any level within the tariff bill file structure must match the Record ID field of the parent record.	Pass: Parent ID = expected parent ID. Fail: Parent ID $\neq$ expected parent ID.
11	Retailer ID	Compare Retailer ID field with expected retailer ID.	Retailer ID field must match retailer ID of the recipient.	Pass: Retailer ID = expected retailer ID. Fail: Retailer ID $\neq$ expected retailer ID.
12	Distributor ID	Compare Distributor ID field with expected distributor ID.	Distributor ID must match distributor ID of the sender.	Pass: Distributor ID = expected distributor ID. Fail: Distributor ID $\neq$ expected distributor ID.
13	Date created	Compare Date Created field with date of receipt.	Date Created field must be less than or equal to the date of receipt.	Pass: Date Created is $\leq$ the date of receipt. Fail: Date Created is $>$ the date of receipt.
14	Date logic	Compare logical to and from dates.	All period date ranges within a tariff bill file must report the end date as greater than or equal to the start date.	Pass: Period end date $\geq$ the same period record's start date. Fail: Period end date $<$ the same period record's start date.
15	Future dates	Compare date values to Tariff File Header record Date Created field.	All date values within a tariff bill file must be less than or equal to the Tariff File Header record Date Created field (excluding demand contract end date within a Demand Determinant record).	Pass: Date values $\leq$ date created. Fail: Date values $>$ date created.

<sup>9</sup> This is an intended deviation from file format validation principles of evaluating content within a file.

Table Ref ID	Check	Test	Description	Outcome
16	Current billing period and tariff bill period alignment	Compare current billing period declared within Site Header record to tariff bill periods.	The Current Billing Period Start Date and the Current Billing Period End Date fields in the Site Header record must equal the earliest Tariff Bill Period Start Date and the latest Tariff Bill Period End Date fields in the Tariff Bill Period Header record, respectively, for a site (excluding cancels and rebills and original tariff bill periods that precede the end date of the last current billing period previously issued to a retailer).	<p>Pass: Current Billing Period Start Date <math>\geq</math> MIN Tariff Bill Period Start Date, and Current Billing Period End Date = MAX Tariff Bill Period End Date.</p> <p>Fail: Current Billing Period Start Date &lt; MIN Tariff Bill Period Start Date, and/or Current Billing Period End Date <math>\neq</math> MAX Tariff Bill Period End Date.</p> <p>Note: Excluding cancels and rebills, and tariff bill periods that precede the end date of the last current billing period previously issued to a retailer.</p>
17	Cancel indicator logic	Compare Cancel Indicator field of tariff bill period child records with Cancel Indicator field of Tariff Bill Period Header record.	All tariff bill period child records must have the same Cancel Indicator value as the parent tariff bill period.	<p>Pass: Tariff bill period child records Cancel Indicator = Tariff Bill Period Header record Cancel Indicator.</p> <p>Fail: Tariff bill period child records Cancel Indicator <math>\neq</math> Tariff Bill Period Header record Cancel Indicator.</p>
18	Tariff bill period overlap (within a tariff bill file)	Compare tariff bill periods with other tariff bill periods within a tariff bill file (excluding cancels and rebills).	Tariff bill periods for current period charges may not overlap. The Tariff Bill Period Start Date field in the Tariff Bill Period Header record must be greater than the preceding Tariff Bill Period End Date field (within a tariff bill file for the same site excluding cancels).	<p>Pass: Tariff Bill Period Start Date &gt; Tariff Bill Period End Date of previous tariff bill period record (excluding cancels).</p> <p>Fail: Tariff Bill Period Start Date <math>\leq</math> Tariff Bill Period End Date of previous tariff bill period record (excluding cancels).</p>
19	Tariff bill period gap (within the current billing period)	Compare tariff bill periods within the current billing period.	Tariff bill periods for the same site within the current billing period must be continuous within the tariff bill file. Where tariff bill periods are discontinuous, the gap must be supported by an SRO followed by an SRN (both within the current billing period).	<p>Pass: Tariff Bill Period Start Date = the previous Tariff Bill Period Header record's Tariff Bill Period End Date plus one day or = Current Billing Period Start Date in the Site Header record.</p> <p>Fail: Tariff Bill Period Start Date <math>\neq</math> the Tariff Bill Period Header record's Tariff Bill Period End Date plus one day or <math>\neq</math> Current Billing Period Start Date in the Site Header record.</p>

Table Ref ID	Check	Test	Description	Outcome
20	Usage period and tariff bill period alignment	Compare usage period(s) with tariff bill period.	The Tariff Bill Period Start Date in the Tariff Bill Period Header record must equal the earliest Usage Period Start Date in the Usage Determinant records, and the Tariff Bill Period End Date in the Tariff Bill Period Header record must equal the latest Usage Period End Date in the Usage Determinant records within a tariff bill period.	Pass: Tariff Bill Period Start Date = MIN Usage Period Start Date, and Tariff Bill Period End Date = MAX Usage Period End Date. Fail: Tariff Bill Period Start Date ≠ MIN Usage Period Start Date, and/or Tariff Bill Period End Date ≠ MAX Usage Period End Date.
21	Usage period overlap (within a tariff bill period)	Compare usage periods within a tariff bill period.	Usage periods within a tariff bill period may not overlap. The Usage Period Start Date must be greater than the preceding Usage Period End Date in the Usage Determinant records.	Pass: Usage Period Start Date > Usage Period End Date of the previous Usage Determinant record. Fail: Usage Period Start Date ≤ Usage Period End Date of the previous Usage Determinant record.
22	Usage period gap (within a tariff bill period)	Compare usage periods within a tariff bill period.	Usage periods within a tariff bill period must be continuous. The Usage Period Start Date must be one day greater than the preceding Usage Period End Date in the Usage Determinant records.	Pass: Usage Period Start Date = Usage Period End Date plus one day of the previous Usage Determinant record. Fail: Usage Period Start Date > Usage Period End Date plus one day of the previous Usage Determinant record.
23	Demand period and tariff bill period alignment	Compare demand period(s) with tariff bill period.	The Tariff Bill Period Start Date and the Tariff Bill Period End Date of the Tariff Bill Period Header record must equal the earliest Demand Period Start Date and the latest Demand Period End Date, respectively, of Demand Determinant records (where applicable) within that tariff bill period having a Demand Type Code of either "billing," "transmission billing," "distribution billing" or "service billing."	Pass: Tariff Bill Period Start Date = MIN Demand Period Start Date, and Tariff Bill Period End Date = MAX Demand Period End Date. Fail: Tariff Bill Period Start Date ≠ MIN Demand Period Start Date, and/or Tariff Bill Period End Date ≠ MAX Demand Period End Date.
24	Demand period overlap (within a tariff bill period)	Compare demand periods within a tariff bill period.	Demand periods for the same demand type and demand UOM within a tariff bill period may not overlap; the Demand Period Start Date must be greater than the preceding Demand Period End Date	Pass: Demand Period Start Date > the previous Demand Determinant record's Demand Period End Date. Fail: Demand Period Start Date ≤ Demand Period End Date of the previous Demand Determinant record.

Table Ref ID	Check	Test	Description	Outcome
25	Demand period gap (within a tariff bill period)	Compare demand periods within a tariff bill period.	Demand periods for the same demand type and demand UOM within a tariff bill period must be continuous; the Demand Period Start Date must be one day greater than the Demand Period End Date in the previous Demand Determinant record.	Pass: Demand Period Start Date = the previous Demand Determinant record's Demand Period End Date plus one day. Fail: Demand Period Start Date > Demand Period End Date of the previous Demand Determinant record plus one day.
26	Charge period and tariff bill period alignment	Compare charge period(s) with tariff bill period.	The Tariff Bill Period Start Date must equal the earliest Charge Period Start Date and the Tariff Bill Period End Date must equal the latest Charge Period End Date within a tariff bill period.	Pass: Tariff Bill Period Start Date = MIN Charge Period Start Date, and Tariff Bill Period End Date = MAX Charge Period End Date. Fail: Tariff Bill Period Start Date ≠ MIN Charge Period Start Date, and/or Tariff Bill Period End Date ≠ MAX Charge Period End Date.
27	Charge period overlap (within a tariff bill period)	Compare charge periods within a tariff bill period.	Charge periods for a single component charge (combination of Tariff Cross-Reference Code, Component Category Code, Component Type Code, Component Basis Code and Step Number field) within a tariff bill period may not overlap; the Charge Period Start Date must be greater than the preceding Charge Period End Date.	Pass: Charge Period Start Date > Charge Period End Date of the previous Tariff Charge record. Fail: Charge Period Start Date ≤ Charge Period End Date of the previous Tariff Charge record.
28	Charge period gap (within a tariff bill period)	Compare charge periods within a tariff bill period.	Charge periods for a single component charge (combination of Tariff Cross-Reference Code, Component Category Code, Component Type Code, Component Basis Code and Step Number fields), having a Component Basis Code of "D" or "E" within a tariff bill period, must be continuous; the Charge Period Start Date must be one day greater than the preceding Tariff Charge record's Charge Period End Date.	Pass: Charge Period Start Date = previous Tariff Charge record's Charge Period End Date plus one day. Fail: Charge Period Start Date > previous Tariff Charge record's Charge Period End Date plus one day.
29	Site Header Usage Total	Compare Site Header record Usage Total with expected Site Header record usage total.	Site Header record Usage Total field must match total of all of the site's usage in the file (including cancels and rebills).	Pass: Site Header Usage Total = sum of all Usage Amount fields in the tariff bill file for a site (including cancels and rebills). Fail: Site Header Usage Total ≠ sum of all Usage Amount fields in the tariff bill file for a site (including cancels and rebills).

Table Ref ID	Check	Test	Description	Outcome
30	Site Header Charge Total	Compare Site Header record Charge Total with expected Site Header record charge total.	Site Header record Charge Total field must equal the sum of all of the Charge Amount fields in the file (including cancels and rebills) for a site.	Pass: Site Header Charge Total = sum of all Charge Amount fields in the tariff bill file for a site (including cancels and rebills). Fail: Site Header Charge Total $\neq$ sum of all Charge Amount fields in the tariff bill file for a site (including cancels and rebills).
31	Tariff bill period header usage total	Compare Tariff Bill Period Header record usage total with expected Tariff Bill Period Header record usage total.	Tariff bill period header usage total must equal the sum of all Usage Amount fields within a tariff bill period.	Pass: Tariff bill period header usage total = sum of all Usage Amount fields in Usage Determinant records for a tariff bill period. Fail: Tariff bill period header usage total $\neq$ sum of all Usage Amount fields in Usage Determinant records for a tariff bill period.
32	Tariff bill period header charge total	Compare Tariff Bill Period Header record charge total with expected Tariff Bill Period Header record charge total.	Tariff bill period header charge total must equal the sum of all Charge Amount fields within the tariff bill period.	Pass: Tariff bill period header charge total = sum of all Charge Amount fields in Tariff Charge records for a tariff bill period. Fail: Tariff bill period header charge total $\neq$ sum of all Charge Amount fields in Tariff Charge records for a tariff bill period.
33	File trailer file record count	Compare file record count with expected file record count.	File record count must match the number of records in the file.	Pass: File record count = number of records in the tariff bill. Fail: File record count $\neq$ number of records in the tariff bill.
34	File trailer charge total	Compare File Trailer record charge total with expected File Trailer record charge total.	File trailer charge total must equal the sum of all Charge Amount fields in the file (including cancels and rebills).	Pass: File trailer charge total = sum of all Charge Amount fields in both Tariff Charge and One-Time Charge records within the tariff bill file (including cancels and rebills). Fail: File trailer charge total $\neq$ sum of all Charge Amount fields in both Tariff Charge and One-Time Charge records within the tariff bill file (including cancels and rebills).



Table Ref ID	Check	Test	Description	Outcome
35	Billing demand determinant requirement	Check for the existence of billing, transmission billing or distribution billing demand determinants where Tariff Charge records are based on demand.	If Tariff Charge records report a component basis code of demand, billing, transmission billing, distribution billing or service billing Demand Determinant records must also be disclosed within the same tariff bill period.	Pass: billing, transmission billing, distribution billing or service billing Demand Determinant records present where Tariff Charge records report component basis code = demand. Fail: billing, transmission billing, distribution billing or service billing Demand Determinant records not present where Tariff Charge records report component basis code = demand.
36	Usage determinant requirement	Check for the existence of a Usage Determinant record within each tariff bill period.	One or more Usage Determinant records must be present for each tariff bill period.	Pass: Usage determinant record exists to support each tariff bill period. Fail: Usage determinant record does not exist to support each tariff bill period.
37	Calculated values	Check calculated values with expected value.	Calculated field values based on a calculation involving one or more fields in the tariff bill file must match the expected calculated value (i.e. charge amount = component unit price x time factor x component billed quantity).	Pass: Calculated field value = expected calculated value. Fail: Calculated field value $\neq$ expected calculated value.
38	Child record values	Check child record value with parent record value.	Where the same field name exists in parent and child records within the tariff bill file, child record field values must match the field values of the parent record (e.g. site ID in the tariff bill period must match the site ID in the Site Header record; likewise, the site ID in the Usage Determinant, Demand Determinant, Miscellaneous Determinant and Tariff Charge records must match the site ID in the Tariff Bill Period Header record).	Pass: Child record field value = parent record field value. Fail: Child record field value $\neq$ parent record field value.
39	Cancel cross-reference logic	Compare contents of the tariff bill period Reference ID field and/or one-time charge Reference ID field with expected results.	A Tariff Bill Period Header or One-Time Charge record flagged with Cancel Indicator field = "Y" must report a valid previous tariff bill period record ID or One-Time Charge record ID, respectively.	Pass: Tariff bill period Reference ID = a valid previous tariff bill period record ID, and/or one-time charge Reference ID = a valid previous One-Time Charge record ID. Fail: Tariff bill period Reference ID $\neq$ a valid previous tariff bill period record ID and/or one-time charge Reference ID $\neq$ a valid previous One-Time Charge record ID.

Table Ref ID	Check	Test	Description	Outcome
40	Cancel value logic	Compare tariff bill file records with Cancel Indicator fields = "Y" with the value of tariff bill file records being cancelled.	Tariff bill file records flagged with Cancel Indicator field = "Y" must match the value of records, with the following field exceptions: Ratchet Datetime, Ratchet Period Months, Demand Contract End Date, Power Factor and Miscellaneous Determinant Type Code in a previously sent tariff bill file that are being cancelled, with amount fields being reverse in sign.	Pass: Values of tariff bill file records flagged with Cancel Indicator "Y" = values of records being cancelled. Fail: Values of records flagged with Cancel Indicator "Y" ≠ values of records being cancelled.
41	Current billing period cancel logic	Check for the existence of cancelled records within the current billing period date range.	All cancelled records must be presented in the timeframe preceding the current billing period.	Pass: Cancelled records do not exist within the current billing period date range. Fail: Cancelled records exist within the current billing period date range.
42	Usage period / charge period alignment for energy based charges	Align usage period with energy based charge periods.	A usage period must exist that starts on the same day as a charge period having a component basis code equal to "E" and a usage period must exist that ends on the same day as that same charge period.	Pass: Usage period exists that starts on the same day as a charge period having a component basis code equal to "E" and a usage period exists that ends on the same day as that same charge period. Fail: Usage period starting on same day as the charge period having a component basis code equal to "E" does not exist, or a usage period ending on same day as that same charge period does not exist.
43	Current billing period content	Compare current billing period content against expected results.	Any tariff bill periods not already presented to a retailer must be fully contained within the current bill period, excluding enrolment corrections.	Pass: Start date of the original tariff bill period <sup>3</sup> start date of the current billing period AND end date of the original tariff bill period £ end date of the current bill period (excluding enrolment corrections and energization affecting initial billing). Fail: Start date of the original tariff bill period £ start date of the current billing period AND end date of the original tariff bill period <sup>3</sup> end date of the current bill period (excluding enrolment corrections and energization affecting initial billing).

Table Ref ID	Check	Test	Description	Outcome
44	Tariff bill file reference ID	Compare tariff bill file reference ID with most recently rejected tariff bill file.	The tariff bill file reference ID must equal the Tariff File Header record ID of the most recently rejected tariff bill file for that distributor.	Pass: Tariff bill file reference ID = the Record ID of the file header record of the most recently rejected tariff bill file for that distributor. Fail: Tariff bill file reference ID <sup>1</sup> the Record ID of the file header record of the most recently rejected tariff bill file for that distributor.

A document titled “Standard File Format Validation Pseudocode,” outlining the conditions and logic that should be taken into account for each file format validation in Table 5-1, is available on the Rule 004 page on the Commission’s website [www.auc.ab.ca](http://www.auc.ab.ca).

### 5.1.2 Standard file content validation and notification

Retailers shall be restricted to performing only the procedures outlined in Table 5-2 to dispute tariff bill file content. Failure of at least one of these validation test procedures will result in a tariff bill file dispute utilizing the TBD transaction described in Section 4.7. These disputes will not affect a distributor’s payment terms with the retailer and may not be used as justification for nonpayment of a distributor invoice. Distributors are not required to respond to these disputes in an automated fashion. For the purpose of these validation tests, the term “expected” means the value contained in the field must be valid as per field level definitions in Section 4.3.

Table 5-2. Standard file content validation tests

Table Ref ID	Check	Test	Description	Outcome
1	Unique record ID (with previous tariff bill files)	Compare Record ID with existing Record ID reported in previous tariff bill files.	All record IDs, must be unique to a distributor (except where a file is replacing a previously rejected tariff bill file).	Pass: Record ID is unique for a distributor. Fail: Record ID is not unique for a distributor.
2	Site ownership	Compare site ownership for the tariff bill period or one-time charge.	Retailer must be assigned as retailer of record for the site for the entire tariff bill period or one-time charge.	Pass: Cross-reference to enrolment transactions confirms site ownership for entire tariff bill period or one-time charge. Fail: Cross-reference to enrolment transactions disputes site ownership for tariff bill period or one-time charge.

Table Ref ID	Check	Test	Description	Outcome
3	Site header billing cycle ID	Compare billing cycle ID with valid billing cycle IDs for that distributor.	Billing cycle ID reported for that site in the tariff bill file must match one of the billing cycle IDs reported in the tariff billing calendar file for the distributor.	Pass: Billing cycle ID = valid billing cycle ID. Fail: Billing cycle ID $\neq$ valid billing cycle ID.
4	Tariff bill period overlap (with previous tariff bill files)	Compare tariff bill periods with previously sent tariff bill periods.	Tariff bill periods within the tariff bill file may not overlap with any Tariff Bill period previously sent and not cancelled.	Pass: Tariff bill period within the tariff bill file does not overlap a previously sent tariff bill period that is not cancelled. Fail: Tariff bill period within the tariff bill file overlaps a previously sent tariff bill period that is not cancelled.
5	Tariff bill period gap (with previous tariff bill files)	Compare tariff bill periods with previously sent tariff bill periods.	Tariff bill periods must be continuous, except for periods of time accounted for by enrolment events.	Pass: Gaps are checked by a retailer against enrolment transactions and validated following file load. Fail: Gaps are checked by a retailer against enrolment transaction and rejected following file load.
6	Invalid usage value	Compare consumption with peak demand.	Usage value may not exceed a calculated value if the peak was continuously hit during the billing period. (Limited to evaluating peak demand or metered demand type whose reporting demand values are greater than zero).	Pass: number of hours in demand period x demand value $\geq$ usage amount. Fail: number of hours in demand period x demand value < usage amount.
7	Tariff bill period events	Compare tariff bill periods presented with expected results.	Tariff bill periods must be presented (i.e. larger periods broken into smaller periods) according to the tariff bill period events articulated in Table 3-1. Note: A distributor may view all tariff billing events as they relate to presentation of tariff charges. However, a retailer has a limited view of the same events and is therefore limited in capacity to perform complete validation tests according to the tariff billing event rules.	Pass: Tariff bill periods account for all tariff bill period events that occurred in the current billing period. Fail: Tariff bill periods do not account for all tariff bill period events that occurred in the current billing period.

Table Ref ID	Check	Test	Description	Outcome
8	Usage period events	Compare usage periods presented with expected results.	Usage periods must be presented (i.e. larger periods broken into smaller periods) according to the usage period events articulated in Table 3-1. Note: A distributor may view all tariff billing events as they relate to presentation of tariff charges. However, a retailer has a limited view of the same events and is therefore limited in capacity to perform complete validation tests according to the tariff billing event rules.	Pass: Usage periods account for all usage period events that occurred in the tariff bill period. Fail: Usage periods do not account for all usage period events that occurred in the tariff bill period.
9	Charge period events	Compare charge periods presented with expected results.	Charge periods must be presented (i.e. larger periods broken into smaller periods) according to the charge period events articulated in Table 3-1. Note: A distributor may view all tariff billing events as they relate to presentation of tariff charges. However, a retailer has a limited view of the same events and is therefore limited in capacity to perform complete validation tests according to the tariff billing event rules.	Pass: Charge periods account for all charge period Events that occurred in the tariff bill period. Fail: Charge periods do not account for all charge period events that occurred in the tariff bill period.
10	Dial readings	Compare from reading of Usage Determinant record with to reading of previous Usage Determinant record.	For a cumulative metered site, the from reading value on a Usage Determinant record must match the to reading value on the previous Usage Determinant record for the same meter (except when the site was de-energized for the previous period, the site is billing for the first time, or in the case of a cancel and rebill).	Pass: From reading value of current usage period record = to reading value of previous Usage Determinant record. Fail: From reading value of current usage period record $\neq$ to reading value of previous Usage Determinant record.
11	Duplicate one-time charge	Compare one-time charge with previously received one-time charges.	One-Time Charge records flagged with Cancel Indicator = "N" must not overlap with previously received one-time charges for the same charge code, site and charge date and have not been cancelled.	Pass: One-time charge does not overlap with a one-time charge that has not been cancelled within the current, or a previously sent, tariff bill file. Fail: One-time charge overlaps with a one-time charge that has not been cancelled within the current, or a previously sent, tariff bill file.

Table Ref ID	Check	Test	Description	Outcome
12	Invalid meter rollover	Compare current meter read to previous meter read.	If the current meter read is less than the previous meter read then the dial difference must be less than 70 per cent of the meter for a reading period of five months or less.	Pass: Dial difference < max reading ´ 70 per cent and end read date – start read date £ (365/12) ´ 5. Fail: Dial difference <sup>3</sup> max reading ´ 70 per cent and end read date – start read date £ (365/12) ´ 5. Where max reading = (10 to the power of the number of dials) – one.

A document titled “Standard File Content Validation Pseudocode” outlining the conditions and logic that should be taken into account for each file content validation in Table 5-2 and is available on the Rule 004 page on the Commission website [www.auc.ab.ca](http://www.auc.ab.ca).

### 5.1.3 Other tariff bill file validation tests

Distributors are required to perform other validation tests on the tariff bill file according to their internal processes or business rules to confirm reasonableness of estimated usage and tariff charges. Failure of these other validation tests justifies withholding presentation of the site(s) and associated charges from a tariff bill file.

Retailers are required to perform other validation tests on the tariff bill file according to their internal process or business rules; however, results from such validation tests are not supported by the dispute mechanism defined in this rule. Follow-up with distributors relating to validation test failures as a result of these other validation tests must be performed manually.

## 5.2 Customer switch advice (CSA) validation and notification

Distributors shall perform the validation and notification steps in accordance with the rules described in this section upon receipt of a CSA transaction. Following the application of the CSA validation test procedures, a distributor will transmit a CSR transaction, as described in Section 4.11, indicating acceptance or rejection of the original CSA transaction.

### 5.2.1 Customer Switch Advice (CSA) validation tests

Upon receipt of a CSA transaction, a distributor will validate the transaction content according to the tests outlined in Table 5-3. For the purpose of these validation tests, the term “expected” means that the value contained in the field must be valid as per field level definitions in Section 4.10.

Table 5-3. CSA transaction validation tests

Table Ref ID	Check	Test	Description	Outcome
1	Retailer ID	Compare retailer ID with expected retailer ID.	Retailer ID must be a valid retailer ID in the province of Alberta and the retailer assigned as retailer of record.	Pass: Retailer ID = expected retailer ID. Fail: Retailer ID $\neq$ expected retailer ID.
2	Distributor ID	Compare distributor ID with expected distributor ID.	The site in question must be within the distributor's service area.	Pass: Distributor ID = expected distributor ID. Fail: Distributor ID $\neq$ expected distributor ID.
3	Site ID	Compare site ID with expected site ID.	Site ID must be a valid site ID in the province of Alberta.	Pass: Site ID = expected site ID. Fail: Site ID $\neq$ expected site ID.
4	Site ownership	Compare site ownership for the Site ID.	Retailer must be assigned as retailer of record for the site for the date in which the CSA transaction is received.	Pass: Cross-reference to enrolment transactions confirms site ownership. Fail: Cross-reference enrolment transactions disputes site ownership.
5	Transaction ID uniqueness	Compare transaction ID with previously received transaction IDs.	A CSA transaction ID must be unique to a retailer.	Pass: Transaction ID is unique. Fail: Transaction ID is not unique.
6	Date format	Compare date format with expected date format.	The CSA date created and requested effective date fields must contain valid dates, and these dates must be less than or equal to the current date and time.	Pass: Date or date and time is in the correct format and is less than the current date and time. Fail: Date is not in the correct format or represents a future date.

### 5.3 Exception handling

This section of the rule provides direction for responding to reported exceptions.

#### 5.3.1 Tariff bill reject (TBR) transaction

- (1) Upon receipt of a TBR transaction, a distributor will validate the reject notification and either:
  - (a) Send a TRN transaction advising the retailer that the rejection of a specific tariff bill file was invalid, in which case the distributor would proceed with distributor invoicing, or
  - (b) Send a TRN transaction advising the retailer that the rejection of a specific tariff bill file was valid, in which case the distributor would correct the tariff bill file format error and issue a

replacement tariff bill file. The distributor would also delay distributor invoicing until a valid TBA transaction was received from the retailer or if a TBR transaction is not received within the time frame prescribed in Table 2-1.

- (2) In all of the above circumstances, a distributor may employ a manual or automated process consistent with its current operating practices.

### 5.3.2 Tariff bill dispute (TBD) transaction

- (1) Upon receipt of a TBD transaction, a distributor will either:
  - (a) advise the retailer, with a supporting explanation, that the dispute is invalid, or
  - (b) correct the reported file content error(s) according to the cancel and rebill processing rules
- (2) In all of the above circumstances, a distributor may employ a manual or automated process consistent with its current operating practices. However, provision of cancel and rebill information must be presented according to the format and production rules of the tariff bill file.

### 5.3.3 Customer switch receipt (CSR) transaction

- (1) Upon receipt of a CSR transaction, a retailer will either:
  - (a) confirm acceptance and validate that the switch is reflected in an upcoming tariff bill file, or
  - (b) confirm the reason for rejection of the CSA transaction, if necessary, by manually contacting the distributor

## 5.4 Cancel and rebill

A “cancel” or “cancel and rebill” of previously issued tariff bill file records for a specific site may be required to:

- (1) Resolve accepted retailer disputes of original or rebilled charges or charges being cancelled.
- (2) Resolve distributor-initiated corrections.



#### 5.4.1 General cancel and rebill production rules

- (1) Cancels and rebills may be issued for tariff-based charges and one-time charges. The cancel and rebill of tariff-based charges is independent from the cancel and rebill of one-time charges for the same site and time period.
- (2) A distributor must send the tariff bill period or one-time charge rebill records in the same tariff bill file as the associated cancel records. The only exception to this requirement is in circumstances when there will never be a rebill.
- (3) Original or rebilled charges presented within a tariff bill file cannot be cancelled within the same tariff bill file (i.e. no redundant charge and cancel presentation).
- (4) All cancels and rebills processed by a distributor must be sent to retailers as part of a tariff bill file according to the record production sequence outlined in Appendix A.
- (5) All cancels and rebills identified and processed by a distributor that extend beyond a distributor's data retention period or beyond the period of adjustment as defined in the distributor's terms and conditions must be sent to retailers as part of a tariff bill file according to the requirements in Section 5.4.4.
- (6) Cancels or cancels and rebills of tariff-based charges and one-time charges for site IDs no longer in use must use the site IDs contained in the original charge records.

##### 5.4.1.1 Tariff charge cancel and rebill production rules

Cancelled tariff period charges must:

- (1) Be presented according to tariff bill period, meaning that the Tariff Bill Period Header record and its associated child records (i.e. Usage Determinants, Demand Determinants, Miscellaneous Determinants and Tariff Charges) must be included as part of the cancel.
- (2) Have a new tariff bill period record ID assigned.
- (3) Have the Cancel Indicator field of the Tariff Bill Period Header record and its associated child records set to "Y."
- (4) Match the content of the original tariff bill file's Tariff Bill Period Header record values with the exception of the following fields: Record ID, Parent ID, Tariff Bill Period Reference ID, Cancel Indicator and Cancel Reason Code.

- (5) Provide a cross-reference to the original tariff bill period record ID being cancelled utilizing the Tariff Bill Period Reference ID field in the Tariff Bill Period Header record.
- (6) Populate a reason code as an explanation for the cancellation utilizing the Cancel Reason Code field of the Tariff Bill Period Header record.
- (7) Match the determinant and charge values of the original tariff bill period child records.
- (8) Apply a sign reversal to the following, when applicable:
  - (a) Tariff Bill Period Header record – usage total
  - (b) Tariff Bill Period Header record – charge total
  - (c) Usage Determinant record – usage amount
  - (d) Demand Determinant record – demand value
  - (e) Miscellaneous Determinant record – unit quantity
  - (f) Tariff Charge record – component billed quantity
  - (g) Tariff Charge record – charge amount
- (9) Be presented either:
  - (a) on an off-cycle basis for disputes relating to the most recently billed period, or
  - (b) on an off-cycle basis or according to the site’s scheduled billing cycle for prior billing period adjustments

Rebilled tariff periods charges must:

- (1) Be presented according to tariff bill period, meaning that the Tariff Bill Period Header record and its associated child records (i.e. Usage Determinants, Demand Determinants, Miscellaneous Determinants and Tariff Charges) must be included as part of the rebill.
- (2) Have a new tariff bill period record ID assigned.
- (3) Follow the standard production rules for new tariff charge presentation – this means that tariff bill period events apply equally to rebilled charges and to original charges.
- (4) Be presented either:
  - (a) on an off-cycle basis for retailer disputes relating to the most recently billed period and only presented up to the end date of the disputed period, or
  - (b) on an off-cycle basis or according to the site’s scheduled billing cycle for prior billing period adjustments

#### 5.4.1.2 One-time charge cancel and rebill production rules

Cancelled one-time charges must:

- (1) have a new One-Time Charge record ID assigned;
- (2) have the Cancel Indicator field of the One-Time Charge records set to “Y”;
- (3) match the content of the original one-time charge values with the exception of the following fields: Record ID, Parent ID, Cancel Indicator, One-time Charge Reference ID, and Cancel Reason Code;
- (4) provide a cross-reference to the original One-Time Charge record ID being cancelled utilizing the One-time Charge Reference ID field in the One-Time Charge record;
- (5) populate a reason code as an explanation for the cancellation utilizing the Cancel Reason Code field of the One-Time Charge record;
- (6) apply a sign reversal to the Charge Amount field value of the One-Time Charge record; and
- (7) be presented either:
  - (a) on an off-cycle basis for disputes relating to the most recently billed period, or
  - (b) according to the site’s scheduled billing cycle for prior billing period adjustments.

Rebilled one-time charges must:

- (1) have a new One-Time Charge record ID assigned;
- (2) follow the standard production rules for new one-time charge presentation; and
- (3) be presented on an off-cycle basis according to the site’s scheduled billing cycle.

#### 5.4.2 Responses to valid retailer disputes

- (1) In response to a valid retailer dispute with respect to a specific site, a distributor must adjust tariff charges, as well as one-time charges, according to the procedures outlined in this section of the rule.
- (2) Following receipt and confirmation of a TBD transaction identifying at least one tariff bill file content dispute, a distributor must:
  - (a) cancel the applicable disputed tariff charges or one-time charge to the retailer who initiated the dispute; and
  - (b) rebill the applicable tariff charges or one-time charge to the retailer initiating the dispute, a different retailer, or both.

### 5.4.3 Distributor-initiated correction

In situations where a distributor initiates a restatement of tariff charges (i.e. reversal and/or reapplication of tariff charges for an entire rate class), a distributor is obligated with all due diligence to provide advance or concurrent notice of the change to the affected retailers. In this communication the distributor must also provide the retailer with the anticipated number of sites affected by the restatement of tariff charges. Notice will be provided via standard distributor communications processes and media. Otherwise, the rules for producing and presenting prior period adjustments as a result of retailer reported disputes apply.

### 5.4.4 Cancels and rebills of charges spanning extended periods

- (1) In situations where cancels extend beyond the distributor's data retention period, and the distributor's terms and conditions and other rules and regulations support rebills for the entire period being cancelled, the distributor will:
  - (a) Cancel as many charges as it has retained in their original format following the production rules described in Section 5.4.1.1.
  - (b) Rebill those same charge periods following the production rules described in Section 5.4.1.1.
  - (c) Create one or more one-time charge adjustments (as described in Section 4.3.9) that summarize the adjustments to charges that span the period beyond the data retention period. The distributor must include the code "PPAC" (prior period adjustment code) in its OCF to be used in the case where the date in the Charge Date field of the One-Time Charge record does not correspond to the charge period being corrected. Each One-Time Charge record must not include any adjustments for periods for which the retailer was not the retailer of record.
  - (d) Communicate to the retailer the calculation details that support the charge adjustment and the reasons for the charge adjustment.

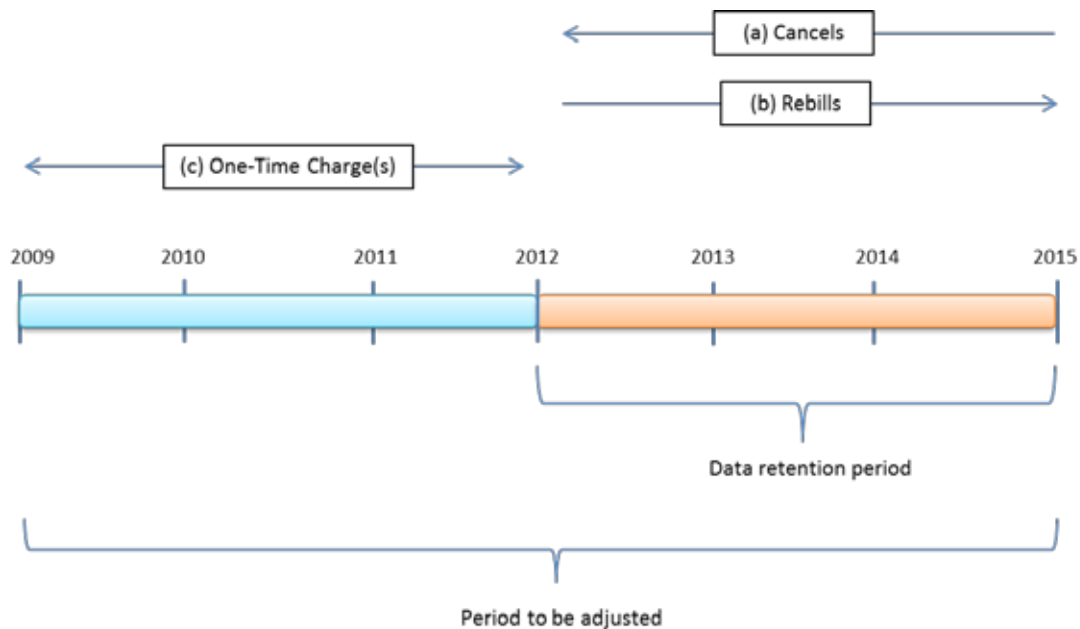


Figure 5-1 Illustrative example of Section 5.4.4(1)

- (2) In situations where the charge periods to be cancelled extend beyond both the distributor's data retention period and the period supported by either the distributor's terms and conditions or by other rules or regulations for performing cancels and rebills, the distributor will:
  - (a) Cancel as many charges as it has retained in their original format following the production rules described in Section 5.4.1.1.
  - (b) Rebill those same charge periods following the production rules described in Section 5.4.1.1.
  - (c) Create one or more one-time charge adjustments (as described in Section 4.3.9) that summarize the adjustments to charges that span the period beyond the data retention period and within the period to be adjusted. The distributor must include the code "PPAC" (prior period adjustment code) in its OCF to be used in the case where the date in the Charge Date field of the One-Time Charge record does not correspond to the charge period being corrected. Each One-Time Charge record must not include any adjustments for periods for which the retailer was not the retailer of record.
  - (d) Communicate to the retailer the calculation details that support the charge adjustment and the reasons for the charge adjustment.

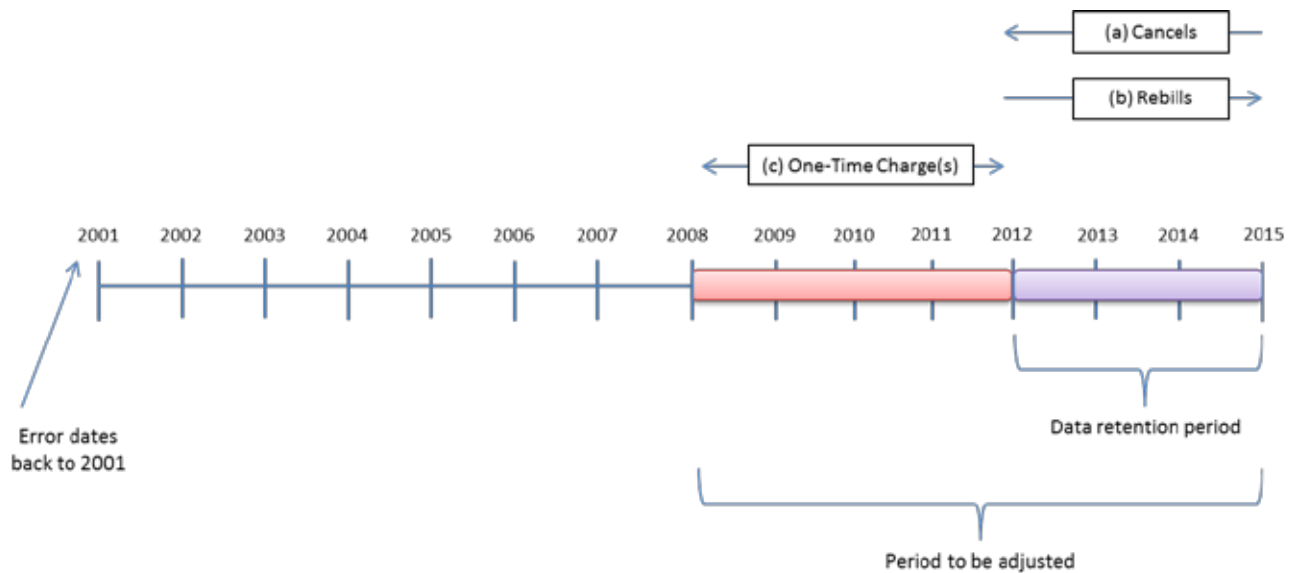


Figure 5-2 Illustrative example of Section 5.4.4(2)

- (3) In situations where cancels extend beyond the period for adjustment supported by the distributor's terms and conditions or by other rules and regulations but fall within the distributor's data retention period, the distributor will:
- (a) Cancel all of the charges following the production rules described in Section 5.4.1.1.
  - (b) Rebill all of the charges following the production rules described in Section 5.4.1.1.
  - (c) Reverse the financial impact of the cancels and rebills for those charge periods that are not to be adjusted using a series of one-time charges as described in Section 4.3.9. All dates in the Charge Date field in the One-Time Charge records must match the Charge Period End Dates in the rebilled charges, and there must be a One-Time Charge record for each charge period. Each One-Time Charge record must not include any adjustments for periods for which the retailer was not the retailer of record.

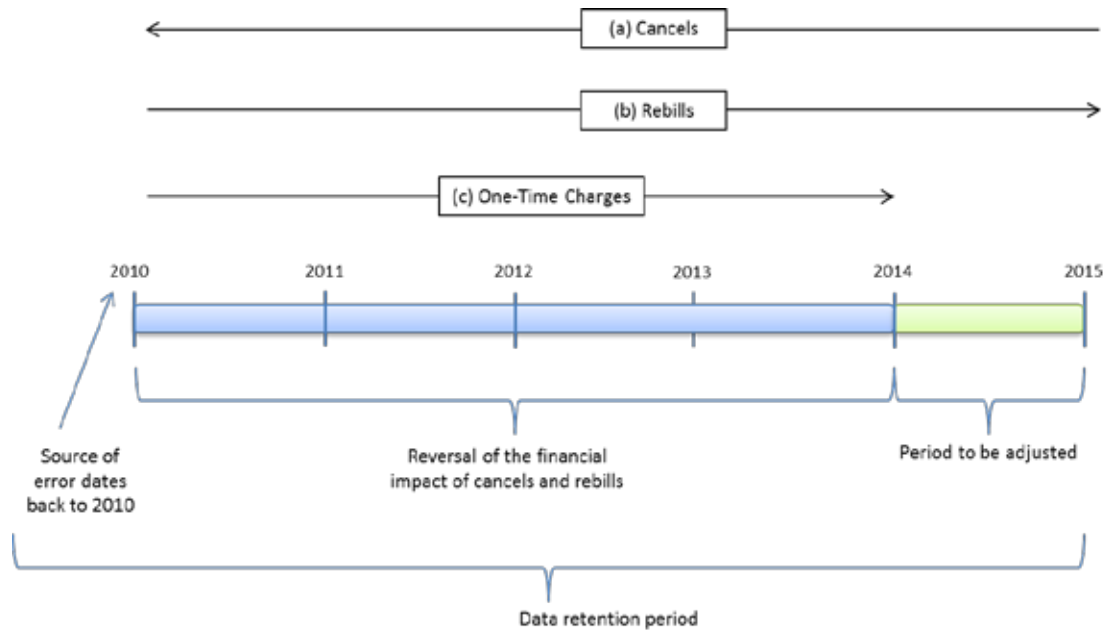


Figure 5-3 Illustrative example of Section 5.4.4(3)

## 6 Readiness

This section defines the procedures, roles, and responsibilities to evaluate a market participant's readiness to transact according to this rule. A market participant's readiness will be evaluated according to its:

- (1) compliance plan, reporting its intent to comply with the rule, and
- (2) pre-transition review results

For the purposes of this section, a regulated party to this rule refers to a distributor or a retailer carrying out the function of an RSP that falls under the Commission's jurisdiction.

### 6.1 Compliance plan

#### 6.1.1 Compliance plan requirements

All regulated parties must, while other parties to this rule may:

- (1) Prepare a compliance plan confirming:
  - (a) The role (distributor or retailer) the party is performing with respect to this rule.
  - (b) That the party is aware of and understands its rule obligations.
  - (c) The party's intent to comply with the specific obligations, as set out in Section 2, and process and transactional requirements, as set out in Sections 3, 4 and 5.
  - (d) Either:
    - (i) the party's intent to issue a self-certification statement, as prescribed in Section 7, or
    - (ii) the timing by which the party will be prepared to certify that it has met rule requirements by issuing a self-certification statement, as set out in Section 7
  - (e) The name, postal address, phone number and email address of the senior authority accountable for compliance with this rule.
- (2) File its compliance plan with the Commission.
- (3) Receive approval of its compliance plan from the Commission, if the party filing its compliance plan is a regulated party.



### 6.1.2 Changes to compliance plan

Each party regulated by this rule must keep its respective compliance plan up to date and must make changes to the compliance plan to reflect changes in circumstances, Commission-directed changes and changes to this rule. A change to a compliance plan must be submitted to the Commission for approval within 30 calendar days following a change in circumstances, the publication of an approved exemption or a Commission-directed change.

### 6.1.3 Approval by the Commission

The Commission may approve the compliance plan of a party regulated by this rule, with or without conditions, and the plan will remain in effect for the period prescribed by, or until revoked by, the Commission.

### 6.1.4 Publication of compliance plan

The Commission will make available to the public some or all of the contents of a compliance plan submitted to it by a party regulated by this rule.

### 6.1.5 Temporary compliance exemptions

- (1) A regulated party may apply to the Commission for a temporary exemption from all or any provision of this rule. The Commission will not approve an exemption unless the Commission is satisfied that:
  - (a) It is in the public interest to do so.
  - (b) The exemption does not significantly affect the obligations of the regulated party or the obligations can be or will be met in other ways for the duration of the exemption.
  - (c) The exemption does not affect the obligation of the regulated party to comply with the *Regulated Default Supply Regulation*.
- (2) The Commission will publish all requests for a temporary exemption and seek comments from interested stakeholders prior to considering the exemption request. The Commission may approve an exemption with or without conditions, and the exemption will remain in effect for the period of time specified by, or until revoked by, the Commission. The Commission must make available on its website all approved exemptions.

### 6.1.6 Emergency exceptions

Any action taken by a party regulated by this rule in response to an emergency that threatens public safety, the safety of its respective officers, employees, agents

or contractors or the physical integrity of its facilities or system reliability does not contravene this rule or a compliance plan.

## 6.2 Pre-transition review

Prior to approving a market participant to transact according to this rule, the Commission will establish a process and timeline that prescribes the manner through which a party regulated by this rule must evaluate and report its readiness to make the transition to rule-compliant systems and processes.

## 7 Self-certification

### 7.1 Self-certification statement – transition complete

Each party regulated by the rule will complete deployment of systems and processes compliant with the requirements of the rule. Each party regulated by the rule will certify, following deployment and a normalization period, that its systems and processes have been developed in accordance with the requirements of the rule by filing with the Commission a self-certification statement. The Commission will establish a process and timeline that prescribes the manner through which a party regulated by this rule must certify achievement of rule requirements.

### 7.2 Authority

The self-certification statement will be signed by the president, chief executive officer or chair of the board of directors of the party regulated by this rule.

### 7.3 Failure to submit

If a regulated party is unable to file a self-certification statement indicating deployment of rule-compliant systems and processes, that regulated party is required to file with the Commission a letter signed by its president, chief executive officer or chair of the board of directors setting out the reasons why a self-certification statement has not been signed and submitted. This letter must detail the extent to which system and process have been deployed and the expected date of achieving full compliance.

### 7.4 Code in effect

For the purposes of Section 7.1 a reference to the rule, is to the rule in effect on the date that the regulated party files its self-certification statement with the Commission.

## **APPENDIX A. INFORMATION EXCHANGE STANDARDS**

### **A1 Purpose**

Appendix A outlines the information exchange standards, both electronic and non-electronic, for the tariff billing business transactions to enable market participants to exchange tariff billing data in a consistent and expedited manner. In addition to defining the format and content of each transaction, universal standards that govern all tariff billing transactions are specified.

The standards presented in the following sections are intended to be as specific as practical to facilitate data exchange between distributors and retailers. At the same time, the Commission recognizes that problems and issues may arise with individual market participants during system implementation and/or changes in market structure that would necessitate an adjustment to the standards. The Commission may consider revising these standards upon presentation of a documented need to do so by a market participant. The Commission may grant a market participant an exemption from these standards provided that the deviation from the standards are necessary and reasonable and the resulting effect on the operation of the market is minimal.

### **A2 Scope**

The scope of this section of this rule is limited to the tariff billing transactions listed in Table 4-1.

### **A3 Revisions**

This rule is subject to change by the Commission in consultation with appropriate market stakeholders. Market participants will be notified in advance of any revisions to the rule. This communication will be followed by a versioned release of the rule.

### **A4 Standards**

This section of the rule contains the standards that govern all tariff billing transactions. For consistency in the marketplace, this rule will adopt the standards included in Rule 021 and Rule 028 where appropriate.

#### **A4.1 Directory structure**

Each market participant governed by this rule must conform with the directory structure dictated by the standard transaction transport method used to send and receive electronic files and or transactions.

#### **A4.2 File-naming conventions**

##### **A4.2.1 Files transmitted electronically**

- (1) All transactions of the same type for a period (usually one day) are to be placed in a single CSV (comma-separated values) formatted file. The file

name must be unique across all files produced by the market participant.  
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. Tariff Bill Accept = TBA) or file name (e.g. Tariff Bill File = TBF). This must be in uppercase.
Sender:	ID of the sender (i.e. Distributor ID of the distributor responsible for the site(s) or Retailer ID).
Recipient:	ID of the recipient (i.e. Distributor ID of the distributor receiving the file or transaction or Retailer ID).
YYYYMMDD:	Date the file was created (e.g. 20041202).
HHMISS:	Time the file was created on a 24-hour clock (e.g. 192432).

.CSV or .csv

- (2) 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.

#### **A4.2.2 Files available for download**

The standard file naming convention is:

TRX\_Sender\_ YYYYMMDDHHMISS.CSV

where,

TRX:	three-letter abbreviation for the transaction name (e.g. Tariff Bill Accept = TBA) or file name (e.g. Tariff Bill File = TBF). This must be in uppercase.
Sender:	ID of the sender (e.g. Distributor ID of the distributor responsible for the site(s) or Retailer ID).
YYYYMMDD:	Date the file was created (e.g. 20041202).
HHMISS:	Time the file was created on a 24-hour clock (e.g. 192432).

.CSV or .csv

### A4.3 CSV file format

- (1) Data in each file must be presented in CSV format.
- (2) Commas (,) may only be used as field separators. No data field may be populated with a comma (,).
- (3) Each field in the file format is a placeholder; therefore if the field has a [null] or empty value, it must be represented as “,” in the .csv output file.

### A4.4 Tariff bill file record production sequence

The record production sequence of all data within each tariff bill file is provided in Figure A4-1.



Figure A4-1. Tariff bill file record production sequence

Each step below corresponds to a numbered item in Figure A4-1.

- (1) The Tariff File Header record must be presented as the first record in a tariff bill file.
- (2) The Tariff File Header record must be followed by the presentation of a Site Header record.

- (3) Each Site Header record within the tariff bill file must be followed by the presentation of a tariff bill period record.<sup>10</sup> Within each Site Header record, tariff bill periods must be presented in ascending date sequence. In the event that a tariff bill period is being cancelled and rebilled, the cancelled tariff bill period (and its associated child records) must be presented before the rebilled tariff bill period.
- (4) Usage determinant record(s) must be presented following the tariff period header record and in ascending date sequence.
- (5) If demand determinants are applicable for a specific tariff bill period, the applicable Demand Determinant record(s) must be presented following the usage records, when available, and in ascending date sequence.
- (6) If miscellaneous determinants are applicable for a specific tariff bill period, the applicable Miscellaneous Determinant record(s) must be presented following the Usage Determinant and Demand Determinant records, when available, and in ascending date sequence.
- (7) If charges (excluding one-time charges) are applicable for a specific tariff bill period, the applicable charge(s) must be presented following the Usage Determinant, Demand Determinant and Miscellaneous Determinant records, when available, and in ascending date sequence.
- (8) If one-time charges are applicable to a specific site, the applicable one-time charge(s) must be presented following the tariff bill period records, when available, and in ascending date sequence for that site. In the event where a one-time charge is being cancelled and rebilled, the cancelled one-time charge must be presented before the rebilled one-time charge for that site.
- (9) The tariff bill File Trailer record must be presented as the last record in a tariff bill file.

#### **A4.5 Optional fields**

The optional fields specified in all tariff billing transactions are applicable to the party generating the transaction.

#### **A4.6 Data-type definition**

The following sections describe the various data types used in the tariff billing transactions.

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<sup>10</sup> If only one-time charges are being presented for a site, the header record will only be followed by a one-time charge record.

**A4.6.1 Char(x)**

Fixed length character field that must be x characters in length.

“ABC” is an example of Char(3).

**A4.6.2 Varchar(x)**

Variable length character field that can be a maximum of x characters in length.

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

**A4.6.3 Number(p,s)**

Number field with “p” digits of precision and “s” digits of scale to the right of the decimal.

“123456.78” is an example of Number(8,2) and “.0012” is an example of Number(4,4).

A number(p,s) formatted field presented in a .csv file may present as many as (p+2) characters when the full number limit is reached for that field and the charge or charge period is being adjusted (i.e. contains a negative sign and a decimal place).

**A4.6.4 Date format**

Date field that requires a specified date in the following standard format:

YYYYMMDD

where,

- YYYY: four-digit year (e.g. 2004)
- 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)

**A4.6.5 Date time format**

Date time field that requires a specified date and time in the following standard format:

YYYYMMDDHHMISS

where,

- YYYY: four-digit year (e.g. 2004)
- 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: two-digit hour on a 24-hour clock 00 to 23 inclusive



MI: two-digit minute 00 to 59  
 SS: two-digit second 00 to 59

**A4.6.6 Site ID format**

This is a thirteen digit field that must adhere, to the site ID format as defined in Section 9 of Rule 021 and in Section 8 of Rule 028.

**A4.7 Negative numbers**

When a numeric value is to be represented as a negative, the number must be shown with the minus sign “-” preceding the value.

For example, negative 123.45 must be shown as -123.45.

**A5 Standard codes**

The standard codes defined in this section are limited to those transactions governed solely by this rule. In the production of transactions governed by this rule, market participants will also need to rely on standard codes governed by Rule 021, Rule 028 and other authorities, as well as on retailer guides or handbooks made public by distributors. For completeness, this section provides reference to these other authorities where appropriate.

**A5.1 Record type code**

This is a two-character code representing record type.

Table A5-1. Record type codes

Table Ref ID	Record Type Code	Record Type Name
1	FH	File header record
2	SH	Site header record
3	TH	Tariff bill period header record
4	DU	Determinant - measured usage record
5	DD	Determinant - demand record
6	DM	Determinant - miscellaneous record
7	CH	Tariff charge record
8	OC	One-time charge record
9	FT	File trailer record

**A5.2 Retailer ID**

This is a unique nine-digit value identifying the retailer. This is equivalent to the retailer ID of the retailer of record for the physical site as defined in Section 9 of Rule 021 and Section 8 of Rule 028.

### A5.3 Distributor ID

This is a unique four-digit value identifying the distributor. In the case of an electric distributor, this is equivalent to the wire services provider ID responsible for the physical site as defined in Section 9 of Rule 021. In the case of a gas distributor, this is equivalent to the distributor ID responsible for the physical site as defined in Section 8 of Rule 028.

### A5.4 Commodity code

This is a two-character code representing commodity.

Table A5-2. Commodity codes

Table Ref ID	Commodity Code	Commodity Name
1	EL	Electricity
2	NG	Natural Gas

### A5.5 Zone ID

This is a unique four-digit value identifying the zone ID. This is equivalent to the zone ID defined in Section 9 of Rule 021 and Section 8 of Rule 028.

### A5.6 Municipality ID

The Commission will maintain a list of municipality IDs via a Municipality ID File (MID) and publish this on the Commission's website to fulfill the requirements of the municipality ID field of the tariff bill file. The contents of the Municipality ID File are shown in Table A5-3.

Table A5-3. Municipality ID File (MID) content

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Municipality Code	Varchar(4)	<b>Mandatory field</b> – Unique identifier representing a municipality in Alberta as reported by Alberta Municipal Affairs.
2	Municipality Name	Varchar(100)	<b>Mandatory field</b> – Description of a municipality in Alberta as reported by Alberta Municipal Affairs.
3	Active Indicator Flag	Char(1)	<b>Mandatory field</b> – Y/N value indicating an active municipality ID. Y=Yes; N=No.

For each distributor, a single current version of the MID will be published on the Commission's website ([www.auc.ab.ca](http://www.auc.ab.ca)) at any given time.

## A5.7 REA code

This is a four-character code representing an REA.

Table A5-4. REA codes

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	REA Code	Varchar(4)	<b>Mandatory field</b> – Unique identifier representing an REA in Alberta.
2	REA Name	Varchar(100)	<b>Mandatory field</b> – Description of an REA in Alberta.
3	Effective Date	Date format	<b>Mandatory field</b> – Date upon which the REA code is active.
4	Expiry Date	Date format	<b>Conditional field</b> – Date beyond which the REA code is no longer active. If the REA code has expired, this field is mandatory.
5	Last Updated	Date format	<b>Mandatory field</b> – Last date upon which changes were made to the REA code record.

## A5.8 Usage UOM

This is a four-character code representing the unit of measure (UOM) for charge records representing Component Basis Code “E” for energy.

Table A5-5. Usage UOM codes

Table Ref ID	Consumption UOM Code	Consumption UOM Name
1	KWH	Kilowatt hour for electricity
2	GJ	Gigajoule for natural gas
3	CALC	Calculated

## A5.9 Site production reason code

A four-digit code representing site production reason.

Table A5-6. Site production reason codes

Table Ref ID	Site Production Reason Code	Site Production Reason Code Name
1	2000	De-enrolment/retailer switch
2	2010	Customer switch/termination of contract
3	2020	Regular billing cycle
4	2030	Missing site (previously withheld from original tariff bill file)
5	2040	Accepted tariff billing dispute for most recently billed period
6	2050	Accepted tariff billing dispute for prior period
7	2060	Bundling or unbundling of totalized sites

Table Ref ID	Site Production Reason Code	Site Production Reason Code Name
8	2070	Other

**Hierarchy rules:**

Site production reason codes must be applied according to the hierarchy dictated in Table A5-5. Where site production reason codes coincide, a distributor must report the site production reason code that precedes other coinciding site production reasons.

**A5.10 Cancel reason code**

A four-digit code representing a reason for canceling a tariff charge or one-time charge.

**Table A5-7. Cancel reason codes**

Table Ref ID	Reason Code	Reason Code Name
1	3000	Pre-implementation charge correction
2	3010	Site ownership correction
3	3020	Rate correction
4	3030	Estimate replacement with actual (true-up following estimate by tariff billing function)
5	3040	Meter read adjustment (from MDM function)
6	3050	Usage estimation revision
7	3060	Demand or miscellaneous determinant correction
8	3070	One-time charge correction
9	3080	Resolution of system error
10	3090	Other

**Hierarchy rules:**

Cancel reason codes must be applied according to the hierarchy dictated in Table A5-6. Where cancel reason codes coincide, a distributor must report the cancel reason code that precedes other coinciding cancel reasons.

**A5.11 Tariff rate code**

The distributor will maintain its respective tariff rate codes via a Tariff Rate Code File (TRC) and provide this to the Commission for publication, to fulfill the requirements of the tariff rate code field in the Tariff Bill Period Header record of the tariff bill file. The contents of the Tariff Rate Code File are shown in Table A5-8.

Table A5-8. Tariff rate code file (TRC) content

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Distributor ID	Distributor ID format	<b>Mandatory field</b> – Unique identifier for a distributor. This identifier must equal that of the distributor for whom the tariff rate code applies.
2	Tariff Rate Code	Varchar(9)	<b>Mandatory field</b> – Code to identify a distributor's approved tariff. Each code within the TRC file must be unique.
3	Tariff Rate Code Description	Varchar(50)	<b>Mandatory</b> – Description of the tariff rate code.
4	Effective Date	Date format	<b>Mandatory field</b> – Date upon which the tariff rate code applies to tariff charges.
5	Expiry Date	Date format	<b>Conditional field</b> – Date beyond which the tariff rate code is no longer applied to current tariff charges. If the tariff rate code has expired, this field is MANDATORY.
6	Last Updated	Date format	<b>Mandatory field</b> – Last date upon which changes were made to the tariff rate code record.

A single current version of the Tariff Rate Code File will be published on the Commission's website ([www.auc.ab.ca](http://www.auc.ab.ca)) at any given time.

### A5.12 Site status code

A single-character code representing site status.

Table A5-9. Site status codes

Table Ref ID	Site Status Code	Site Status Code Name
1	D	De-energized (a de-energized site with no charges)
2	E	Energized
3	I	Idle (implies a de-energized site that incurs tariff charges)

### A5.13 Meter type code

A single-character code representing meter type.

Table A5-10. Meter type codes

Table Ref ID	Meter Type Code	Meter Type Code Name
1	C	Cumulative
2	I	Interval
3	U	Unmetered
4	T	Totalized (gas commodity sites only)
5	S	Subtract (gas commodity sites only)

#### A5.14 Reading type code

A single-character code representing reading type.

Table A5-11. Reading type codes

Table Ref ID	Reading Type Code	Reading Type Code Name
1	A	Represents an actual read reported from MDM as ME or VE
2	C	Customer supplied read (if visible or available)
3	E	Estimate as reported by MDM as ES or estimated by billing function

#### A5.15 Demand type code

A four-digit code representing demand type.

Table A5-12. Demand type codes

Table Ref ID	Demand Type Code	Demand Type Code Name
1	4000	Billing
2	4010	Transmission billing
3	4020	Distribution billing
4	4030	Breaker size
5	4040	Contract
6	4050	Transmission contract
7	4060	Distribution contract
8	4070	Deemed
9	4080	Metered
10	4090	Rate minimum
11	4100	Ratchet
12	4110	Transmission ratchet
13	4120	Distribution ratchet
14	4130	Peak
15	4140	Coincident peak
16	4150	System coincident peak
17	4160	Nominated capacity demand
18	4170	Excess demand
19	4180	Service billing
20	4190	Service contract
21	4200	Service ratchet
22	4210	Transmission rate minimum

Table Ref ID	Demand Type Code	Demand Type Code Name
23	4220	Distribution rate minimum
24	4230	Service rate minimum

### A5.16 Demand UOM

A maximum four-character code representing demand UOM.

Table A5-13. Demand UOM codes

Table Ref ID	Demand UOM Code	Demand UOM Code Name
1	GJ	Gigajoule
2	KM	Kilometre
3	KVA	Kilovolt ampere
4	KVAR	Kilovolt ampere reactive
5	KW	Kilowatt
6	VA	Volt ampere
7	VAR	Volt ampere reactive
8	WATT	Watt
9	CALC	Calculated

### A5.17 Unit quantity UOM and billed quantity UOM

A maximum seven-character code representing unit of measure for unit quantity and billed quantity.

Table A5-14. Unit quantity UOM and billed quantity UOM codes

Table Ref ID	Unit Quantity UOM Code	Measurement System	Unit Quantity UOM Code Name
1	A2H	Metric	Ampere squared hour
2	AH	Metric	Ampere hour
3	AMP	Metric	Ampere
4	BDAY	Time	Business day
5	C	Metric	Celsius
6	CALC	Other	Calculated
7	CCF	Imperial	Hundred cubic feet
8	CCM	Metric	1/100 cubic metre
9	CDAY	Time	Calendar day
10	CF	Imperial	Cubic feet
11	CM	Metric	Cubic metres

Table Ref ID	Unit Quantity UOM Code	Measurement System	Unit Quantity UOM Code Name
12	CYD	Imperial	Cubic yards
13	DOLR	Other	Dollar
14	DWEL	Other	Dwelling unit
15	F	Imperial	Fahrenheit
16	FEET	Imperial	Feet
17	FIXT	Other	Fixture
18	FLAT	Other	Flat fee
19	GJ	Metric	Gigajoules
20	GJMF	Imperial	Gigajoule/thousand cubic
21	HP	Imperial	Horsepower
22	HR	Time	Hour
23	KPA	Metric	Kilopascal
24	KQH	Metric	Kiloquadergy hour
25	KV	Metric	Kilovolt
26	KVA	Metric	Kilovolt ampere
27	KVAH	Metric	Kilovolt ampere hours
28	KVAR	Metric	Kilovolt ampere reactive
29	KVH	Metric	Kilovolt hour
30	KVRH	Metric	Kilovolt ampere reactive
31	KW	Metric	Kilowatt
32	KWH	Metric	Kilowatt hour
33	MCF	Imperial	Thousand cubic feet
34	MIN	Time	Minute
35	MON	Time	Month
36	MWH	Metric	Megawatt hour
37	PERC	Other	Percent
38	PSI	Imperial	Pound per square inch
39	QH	Metric	Quadergy hour
40	SITE	Other	Description
41	SM	Metric	Square metres
42	UNIT	Other	Recycle dwelling units
43	V2H	Metric	Volt squared hour
44	VA	Metric	Volt ampere
45	VAH	Metric	Volt ampere hour



Table Ref ID	Unit Quantity UOM Code	Measurement System	Unit Quantity UOM Code Name
46	VAR	Metric	Volt ampere reactive
47	VARH	Metric	Volt ampere reactive hour
48	VH	Metric	Volt hour
49	VOLT	Metric	Volt
50	VRH	Metric	VRH
51	WATT	Metric	Watt
52	WH	Metric	Watt hour
53	XCM	Metric	1/1000 cubic metre
54	YR	Time	Year
55	KM	Metric	Kilometre
56	BFLAG	Other	Boolean flag

### A5.18 Tariff cross-reference codes

Each distributor will maintain its respective tariff cross reference codes via a tariff cross-reference code file (TRF) and provide this to the Commission for publication, to fulfill the requirements of the tariff cross reference code field of the tariff bill file. The contents of the tariff cross-reference code file are shown in Table A5-15.

Table A5-15. Tariff cross-reference code file (TRF) content

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Distributor ID	Distributor ID format	<b>Mandatory field</b> – Unique identifier for a distributor. This identifier must equal that of the distributor for whom the tariff cross reference code applies.
2	Tariff Rate Code	Varchar(9)	<b>Mandatory field</b> – Code to identify a distributor's approved tariff. Each code within the TRF file must be unique.
3	Tariff Cross Reference Code	Varchar(9)	<b>Mandatory field</b> – Code to identify a distributor's tariff component (may be equivalent to the tariff rate code.)
4	Tariff Cross Reference Code Description	Varchar(50)	<b>Mandatory</b> – Description of the tariff cross reference code.
5	Effective Date	Date format	<b>Mandatory field</b> – Date upon which the tariff cross reference code applies to tariff charges.
6	Expiry Date	Date format	<b>Conditional field</b> – Date beyond which the tariff cross reference code is no longer applied to current tariff charges. If the tariff cross reference code has expired, this field is mandatory.
7	Last Updated	Date format	<b>Mandatory field</b> – Last date upon which changes were made to the tariff cross reference code record.

For each distributor, a single current version of the TRF will be published on the Commission's website ([www.auc.ab.ca](http://www.auc.ab.ca)) at any given time.

### **A5.19 Component category code**

A four-digit code representing component category.

**Table A5-16. Component category codes**

Table Ref ID	Component Category Code	Component Category Code Name
1	5001	Distribution
2	5002	Local access fee or municipal franchise fee
3	5003	Rider
4	5004	Transmission
5	5005	Service fees
6	5006	Rebates (i.e. site government)
7	5007	REA
8	5008	Provincial carbon levy

### **A5.20 Component basis code**

A single-character code representing component basis.

**Table A5-17. Component basis codes**

Table Ref ID	Component Basis Code	Component Basis Code Name
1	D	Demand
2	E	Energy
3	F	Fixed
4	P	Percentage (%) based
5	Q	Power quality (e.g. deficient power factor)

### **A5.21 Component type code**

Each distributor will maintain its respective component type codes via a component type code file (CTF) and provide this to the Commission for publication, to fulfill the requirements of the component type code field of the tariff bill file. The contents of the component type code file are shown in Table A5-18.

**Table A5-18. Component type code file (CTF) content**

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Distributor ID	Distributor ID format	<b>Mandatory field</b> – Unique identifier for a distributor. This identifier must equal that of the distributor for whom the component type code applies or, in cases where the distributor has multiple zones, this identifier may equal the Zone ID.
2	Component Type Code	Varchar(4)	<b>Mandatory field</b> – Standardized code to represent a distributor's charge component. Each code within the CTF file must be unique or, in cases where the distributor has multiple zones, the same component type code can be re-used for each of its zones.
3	Component Type Code Description	Varchar(50)	<b>Mandatory</b> – Description of the component type code.
4	Effective Date	Date format	<b>Mandatory field</b> – Date upon which the component type code applies to tariff charges.
5	Expiry Date	Date format	<b>Conditional field</b> – Date beyond which the component type code is no longer applied to current tariff charges. If the component type code has expired, this field is mandatory.
6	Last Updated	Date format	<b>Mandatory field</b> – Last date upon which changes were made to the component type code record.

For each distributor, a single current version of the CTF will be published on the Commission's website ([www.auc.ab.ca](http://www.auc.ab.ca)) at any given time.

### **A5.22 One-time charge code**

Each distributor will maintain its respective one-time charge codes via a one-time charge code file (OCF) and provide this to the Commission for publication, to fulfill the requirements of the One-Time Charge Code field of the tariff bill file. The contents of the OCF are shown in Table A5-19.

Each distributor must include the code "PPAC" (prior period adjustment code) in its OCF to be used only in the case where a cancel and rebill is for periods beyond the distributor's data retention period and the date in the Charge Date field of the One-Time Charge record does not correspond to the charge period being corrected.

**Table A5-19. One-time charge code file (OCF) content**

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Distributor ID	Distributor ID format	<b>Mandatory field</b> – Unique identifier for a distributor. This identifier must equal that of the distributor for whom the one-time charge code applies or, in cases where the distributor has multiple zones, this identifier may equal the Zone ID.

Element Sequence	Field (in sequence)	Data Type/Size	Description
2	One-Time Charge Code	Varchar (4)	<b>Mandatory field</b> – Standardized code to represent a distributors' one-time charge. Each code within the OCF file must be unique or, in cases where the distributor has multiple zones, the same one-time charge code can be re-used for each of its zones.
3	One-Time Charge Code Description	Varchar (50)	<b>Mandatory</b> – Description of the one-time charge code.
4	Effective Date	Date format	<b>Mandatory field</b> – Date upon which the one-time charge code applies to tariff charges.
5	Expiry Date	Date format	<b>Conditional field</b> – Date beyond which the one-time charge code is no longer applied to current tariff charges. If one-time charge code has expired, this field is mandatory.
6	Last Updated	Date format	<b>Mandatory field</b> – Last date upon which changes were made to the one-time charge code record.

A single current version of the OCF for each distributor will be published on the Commission's website ([www.auc.ab.ca](http://www.auc.ab.ca)) at any given time.

### A5.23 Miscellaneous determinant code

Each distributor will maintain its respective miscellaneous determinant codes via a miscellaneous determinant code file (MDF) and provide this to the Commission for publication, to fulfill the requirements of the Miscellaneous Determinant Code field of the tariff bill file. The contents of the MDF are shown in Table A5-20.

Table A5-20. Miscellaneous determinant code file (MDF) content

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Distributor ID	Distributor ID format	<b>Mandatory field</b> – Unique identifier for a distributor. This identifier must equal that of the distributor or agent of the distributor for whom the miscellaneous determinant code applies or, in cases where the distributor has multiple zones, this identifier may equal the Zone ID.
2	Miscellaneous Determinant Code	Varchar (4)	<b>Mandatory field</b> – Standardized code to represent a miscellaneous determinant disclosed in a tariff bill file. Each code within the MDF file must be unique or, in cases where the distributor has multiple zones, the same miscellaneous determinant code can be re-used for each of its zones.
3	Miscellaneous Determinant Description	Varchar (40)	<b>Mandatory</b> – Description of the miscellaneous determinant disclosed in a tariff bill file.
4	Effective Date	Date format	<b>Mandatory field</b> – Date upon which the miscellaneous determinant code applies to tariff charges.

Element Sequence	Field (in sequence)	Data Type/Size	Description
1	Distributor ID	Distributor ID format	<b>Mandatory field</b> – Unique identifier for a distributor. This identifier must equal that of the distributor or agent of the distributor for whom the miscellaneous determinant code applies or, in cases where the distributor has multiple zones, this identifier may equal the Zone ID.
2	Miscellaneous Determinant Code	Varchar (4)	<b>Mandatory field</b> – Standardized code to represent a miscellaneous determinant disclosed in a tariff bill file. Each code within the MDF file must be unique or, in cases where the distributor has multiple zones, the same miscellaneous determinant code can be re-used for each of its zones.
3	Miscellaneous Determinant Description	Varchar (40)	<b>Mandatory</b> – Description of the miscellaneous determinant disclosed in a tariff bill file.
5	Expiry Date	Date format	<b>Conditional field</b> – Date beyond which the miscellaneous determinant code is no longer applied to current tariff charges. If the miscellaneous determinant code has expired, this field is mandatory.
6	Last Updated	Date format	<b>Mandatory field</b> – Last date upon which changes were made to the miscellaneous determinant code record.

For each distributor, a single current version of the MDF will be published on the Commission’s website ([www.auc.ab.ca](http://www.auc.ab.ca)) at any given time.

#### A5.24 Tariff bill file rejection code

A four-digit code representing a tariff bill file (TBF) rejection code.

Table A5-21. Tariff bill file (TBF) rejection codes

Table Ref ID	TBF Rejection Code	TBF Rejection Code Name
1	6001	Invalid file naming convention
2	6002	Invalid file format
3	6003	Invalid record production sequence
4	6004	Failed mandatory field logic
5	6005	Failed conditional field logic
6	6006	Invalid standard code
7	6007	Non-unique record ID
8	6008	Invalid parent ID
9	6009	Invalid retailer ID
10	6010	Invalid distributor ID
11	6011	Invalid date logic
12	6012	Future dates found
13	6014	Misalignment of current billing period and tariff bill period(s)

Table Ref ID	TBF Rejection Code	TBF Rejection Code Name
14	6015	Failed cancel indicator logic
15	6016	Tariff bill period overlap (within tariff bill file)
16	6017	Misalignment of usage period(s) with tariff bill period
17	6018	Usage period overlap (within a tariff bill period)
18	6019	Usage period gap (within a tariff bill period)
19	6020	Misalignment of demand period(s) with tariff bill period
20	6021	Demand period overlap (within a tariff bill period)
21	6022	Demand period gap (within a tariff bill period)
22	6023	Misalignment of charge period(s) with tariff bill period
23	6024	Charge period overlap (within a tariff bill period)
24	6025	Charge period gap (within a tariff bill period)
25	6026	Invalid date created (file header)
26	6028	Invalid usage total (Site Header record)
27	6029	Invalid charge total (Site Header record)
28	6031	Invalid usage total (Tariff Bill Period Header record)
29	6032	Invalid charge total (Tariff Bill Period Header record)
30	6033	Invalid file record count (File Trailer record)
31	6034	Invalid charge total (File Trailer record)
32	6035	Missing billing Demand Determinant record
33	6036	Missing Usage Determinant record
34	6038	Invalid calculated values
35	6040	Invalid child record values
36	6041	Invalid data type
37	6042	Tariff bill period gap (within current billing period)
38	6043	Failed cancel reference logic
39	6044	Failed cancel value logic
40	6045	Failed current billing period cancel logic
41	6046	Misalignment of usage/charge period alignment
42	6047	Failed current billing period content
43	6048	Failed tariff bill file reference ID

### A5.25 Dispute code

A four-digit code representing a tariff bill file dispute code.

Table A5-22. Dispute codes

Table Ref ID	Dispute Code	Dispute Code Name
1	7000	Non-unique record ID
2	7001	Failed site ownership
3	7003	Tariff bill period gap (with previous tariff bill files)
4	7004	Tariff bill period overlap (with previous tariff bill files)
5	7005	Invalid usage value
6	7008	Misalignment of tariff bill periods with tariff bill period events
7	7009	Misalignment of usage periods with usage period events
8	7010	Misalignment of charge periods with charge period events
9	7011	Current from dial reading does not match previous to dial reading
10	7012	Duplicate one-time charge
11	7013	Invalid billing cycle (Site Header record)
12	7014	Invalid meter rollover
13	7015	Provincial carbon levy dispute

### A5.26 Customer switch transaction status code

A four-digit code representing the status of a retailer's CSA transaction.

Table A5-23. Customer switch transaction status codes

Table Ref ID	Transaction Status Code	Transaction Status Name
1	0000	Accept
2	8001	Invalid site ID
3	8002	Invalid retailer ID
4	8003	Invalid distributor ID
5	8004	Invalid date
6	8005	Invalid transaction ID
7	8008	Other

### A5.27 Irregular bill period type code

A four-digit code representing irregular bill period type.

Table A5-24. Irregular bill period type codes

Table Ref ID	Irregular Bill Period type Code	Irregular Bill Period Type Code Name
1	9000	Regular cycle (under normal circumstances would adhere to the 27-35 day billing period rule)
2	9010	Irrigation
3	9020	Other seasonal

### A5.28 Site withheld reason code for the TSW

A four-digit code representing site withheld reason.

Table A5-25. Site withheld reason codes

Table Ref ID	Site Production Reason Code	Site Production Reason Code Name
1	2500	Site withheld due to failure of standard content validation tests
2	2501	Site withheld due to failure of production validation tests
3	2502	Site withheld due to tariff calculation errors
4	2503	Other

### A5.29 Carbon levy exempt transaction status codes

A four-digit code representing the status of a retailer's Carbon Levy Exempt transaction.

Table A5-26. Carbon levy exempt transaction status codes

Status code	Description	Transaction	Sender	Recipient
0000	Accept	CLN	Distributor	Retailer
2605	Invalid retailer ID	CLN	Distributor	Retailer
2607	Invalid retailer ID – not valid for this distributor	CLN	Distributor	Retailer
2608	Invalid retailer ID for site	CLN	Distributor	Retailer
2611	Invalid distributor ID	CLN	Distributor	Retailer
2612	Invalid distributor ID for this site	CLN	Distributor	Retailer
2613	Invalid site ID	CLN	Distributor	Retailer
2615	Site ID has been removed from the site catalogue	CLN	Distributor	Retailer
2624	Invalid number of fields in the transaction	CLN	Distributor	Retailer
2628	Invalid transaction ID	CLN	Distributor	Retailer
2629	Transaction ID field invalid – format, length	CLN	Distributor	Retailer
2630	Transaction Date Time field invalid – format, length	CLN	Distributor	Retailer



Status code	Description	Transaction	Sender	Recipient
2631	Retailer ID field invalid – format, length	CLN	Distributor	Retailer
2632	Exempt Indicator field invalid – format, length	CLN	Distributor	Retailer
2633	Distributor ID field invalid – format, length	CLN	Distributor	Retailer
2634	Site ID field invalid – format, length	CLN	Distributor	Retailer
2635	Exempt Reason Code field invalid – format, length, missing	CLN	Distributor	Retailer

## **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.

### **B1 VLTrader software upgrades**

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

### **B2 VL Trader 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.