

PROPOSED CHANGES OF THE RULE 021 (Version 2.1) – DRAFT

The intent of this document is to highlight of the proposed changes of the Rule 021 (Version 2.1). These proposed changes are based on the recommendations from the sub-working groups and consensus among the SSC working group members. The section sequences are following those stated in Rule 021 (Version 2.0). All the proposed changes are highlighted in **YELLOW**.

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1 Definitions

Grouped Streetlight Virtual grouping of Streetlights (which may be physically disparate) that is represented as a single Site ID for billing and settlement purposes.

Streetlight An unmetered light source along a public highway (as defined in the *Hydro and Electric Energy Act*) that is controlled by a photo sensor and which may constitute one of a series.

2 **Responsibilities** : No change in this section

3 **Load Profiling Methods** : No change in this section

4 Load Settlement Calculations

4.1 **Loss Calculations**: No change in this section

4.2 **Unaccounted for Energy (UFE)** : No change in this section

4.3 **Load Settlement Interval** : No change in this section

4.4 **Load Settlement Timing** : No change in this section

4.4.1 **General Comments** : No change in this section

4.4.2 **Daily Settlement** : No change in this section

4.4.3 **Monthly Settlement** : No change in this section

4.4.4 Interim Settlement

(1) Interim settlement will make use of consumption amounts for all completed meter reading periods as of 23:59 of the **twelfth** Business Day of the **second** month following the month being settled, subject to the restrictions on profile cutoff dates and profile freezing described in section 6. For customers for which a meter reading is not available covering all days to be settled, the energy consumption amounts will be estimated by the LSA as described in section 2.6.

(2) The LSA will provide interim settlement results to the ISO and Retailers by 23:59 on the **fifteenth** Business Day of **the second** month following the month being settled.

4.4.5 Final Settlement

(1) Final settlement will make use of consumption amounts for all completed meter reading periods as of 23:59 of the **fifth last** Business Day of the **fourth** month following the month

being settled, subject to the restrictions on profile cutoff dates and profile freezing described in section 6. For customers for which a meter reading is not available covering all days to be settled, the energy consumption amounts will be estimated by the LSA as described in section 2.6.

- (2) The LSA will provide final settlement results to the ISO and Retailers by 23:59 on the **second last** Business Day of the **fourth** calendar month following the month being settled.

4.5 Load Settlement Responsibility for WSPs : No change in this section

4.6 Load Settlement Mechanics for Special Cases

4.6.4 Micro-Generation

(b) For large micro-generation Sites:

- (i) There is a one-to-one relationship between Site ID (load) and asset ID (generation) for micro-generation. Neither changes are allowed once assigned to the Site.
- (ii) The MDM will provide interval data to the LSA and ISO using DSM transactions.
- (iii) The MDM will provide interval data to Retailers using GIM transactions.
- (iv) There is no requirement for Retailers to provide information to the ISO to enable the ISO to credit Retailers for large micro-generation.

(v) Large micro-generation is subject to the same PFEC and PFAM rules applicable to system-level errors, per subsection 5.3.3(3).

(c) For small micro-generation Sites:

- (i) The MDM will provide cumulative data to Retailers using GCM transactions.
- (ii) Small micro-generation is not subject to PFEC and PFAM rules as it is not included in load settlement. **Should small micro-generation errors be identified by the MDM or the LSA, the data provided previously per sections 9.6.1.3 and 9.6.6.4 must be restated. For errors identified by other parties, the PFEC and PFAM Application Forms shown in Appendix A can be completed and submitted to the LSA to start the correction process.**
- (iii) For a Site that switches Retailers between two meter readings, each Retailer will determine the energy supplied out of the Site while the Site was enrolled to them by prorating the energy supplied out of the Site in the meter reading period in proportion to the number of days the Site was enrolled to them in accordance with the MDM's published deemed time rules.

5 Settlement Error Correction

5.1 General

Procedures for the identification and correction of errors pursuant to the Code are set out below. No party may opt out of specific requirements and procedures herein pertaining to Code-related disputes.

5.2 Pre-Final Error Correction (PFEC)

5.2.1 Scope

- (1) The purpose of the PFEC process is to establish a formal mechanism to correct eligible errors before final settlement and ultimately to improve load settlement results before Final Settlement.
- (2) Errors which are eligible for correction through the PFEC process are Settlement-Related Errors and Meter-Related Errors.
- (3) Settlement-Related Errors include but are not limited to energize/de-energize, enrollment, calculation (e.g. WSD not equal to DIM), and Site characteristics (e.g. loss class, profile class, direct connect status) errors.
- (4) Meter-Related Errors include and are limited to system level and Site level meter errors.
- (5) The lack of a meter read shall not be the basis for a PFEC Application.
- (6) The LSA will make an effort to ensure a PFEC Application is investigated and any error is corrected prior to final settlement.

5.2.2 PFEC Process

- (1) A PFEC Application may be commenced by a Retailer, the ISO or the LSA upon identification of an error. An Application is initiated by the filing of a PFEC Application Form (see Appendix A, PFEC Application Form).
- (2) A party other than the LSA who files a PFEC Application Form is referred to as a PFEC Applicant.
- (3) Where the Applicant identifies an alleged error, the Applicant may submit a PFEC Application Form with Part One completed to the LSA responsible for the relevant load settlement area. The PFEC Application Form shall be submitted via email, in prescribed format, with all required information. Additional information may be included or attached as deemed necessary by the PFEC Applicant.
- (4) Where the LSA identifies an alleged error, the LSA may complete Part One of the PFEC Application Form and may include or attach additional information as it deems necessary.
- (5) Upon receiving or completing Part One of a PFEC Application Form, the LSA shall assign a unique PFEC Reference Number to the PFEC Application Form for tracking and processing purposes.
- (6) Within two Business Days of receiving or completing Part One of the PFEC Application Form, the LSA shall send a notice of receipt or issuance of the PFEC Notice via email to the Retailer and, where the ISO is the Applicant, to the ISO.
- (7) The PFEC Notice shall:
 - (a) provide the PFEC Reference Number assigned to the PFEC Application;
 - (b) advise whether the LSA, MDM or WSP will be conducting the investigation; and
 - (c) contain the PFEC Application Form where a Retailer is not the Applicant.

- (8) In the case of Meter-Related Errors, the LSA shall forward for investigation the PFEC Application Form to the MDM or WSP, as applicable, at the same time as it sends the Notice as per subsection 5.2.2 (7).
- (9) Where the MDM or WSP receives a PFEC Application Form and disagrees with the LSA's classification of an error as a Meter-Related Error, the MDM or WSP shall return the PFEC Application Form to the LSA explaining its reasons for disagreement within two Business Days of receiving it. The LSA shall then conduct an investigation and may request information from the MDM or WSP. The MDM or WSP shall provide the requested information to the LSA within two Business Days of receiving a request.
- (10) In the case of Settlement-Related Errors, the LSA shall undertake an investigation.
- (11) Where the LSA finds that Part One of the PFEC Application Form contains errors or omissions or otherwise requires further information (collectively, Deficiencies) and therefore is unable to complete an investigation of the alleged error, the LSA shall advise the Retailer and, where the ISO is the PFEC Applicant, the ISO, via email, of the Deficiencies within two Business Days of sending the Notice. The investigation may be suspended until the LSA is in receipt of an amended PFEC Application Form addressing all Deficiencies to allow the LSA to perform the investigation.
- (12) The Retailer and, where the ISO is the PFEC Applicant, the ISO shall, upon being notified of the Deficiencies, re-submit the PFEC Application Form within two Business Days to the LSA. All Deficiencies shall be addressed in the amended PFEC Application Form which shall include the PFEC Reference Number originally assigned to it by the LSA.
- (13) Part One of the PFEC Application Form is deemed complete on the date when the LSA receives, to its satisfaction, a PFEC Application Form with any and all Deficiencies addressed.
- (14) The LSA, MDM or WSP, as applicable, shall review the PFEC Application Form and determine if an error exists and how any error may be corrected. Comments regarding its determination shall be provided in Part Two of the PFEC Application Form and sent via email to the Retailer and to the ISO.
- (15) Determinations on Settlement-Related Errors shall be issued and all applicable errors shall be corrected within five Business Days after Part One of the PFEC Application Form is deemed complete by the LSA.
- (16) Determinations on Metering-Related Errors shall be issued and all applicable errors shall be corrected within twenty Business Days after Part One of the PFEC Application Form is deemed complete by the LSA.
- (17) If the LSA, MDM or WSP, as applicable, is unable to meet the deadlines specified in subsections 5.2.2 (15) and (16), the investigating party must communicate to the Retailer and the ISO the date by which the Retailer can expect the corrections to be made. An extension to the deadlines specified in subsections 5.2.2 (16) and (17) shall not exceed twenty Business Days.
- (18) Where the MDM or WSP is the investigating party and requires an extension of time pursuant to subsection 5.2.2 (17), it shall also notify the LSA of the date by which the Retailer can expect the corrections to be made.

- (19) The LSA shall include any error correction arising from a PFEC Application in the next settlement run.
- (20) Where a PFEC process initiated under section 5.2 is not completed by the date of final settlement, the PFEC Application Form shall be sent by email to the Retailer and the ISO stating in Part Two of the PFEC Application Form that the alleged or confirmed error will be dealt with under the PFAM process. The LSA shall initiate a PFAM adjustment in accordance with section 5.3.

5.3 Post-Final Adjustment Mechanism (PFAM)

5.3.1 Scope

- (1) PFAM is the means by which a Retailer of Record receives an ISO financial adjustment for errors identified after final settlement.
- (2) The LSA is responsible for identifying changes to data (i.e. meter reads, changes to energization status, meter multiplier changes, etc.) after final settlement affecting periods already final settled and then initiating the PFAM process as described in section 5.3.3 where applicable.
- (3) While the majority of errors will be identified and PFAMs processed by the LSA, there may be instances where the PFAM process will be initiated by the following participants: Retailers, MDMs, WOs, WSPs, and the ISO.
- (4) System level errors may be adjusted through the PFAM process.
- (5) PFAM adjustments will not result in revised WSD data or any other output of load settlement.
- (6) These PFAM processes shall only be applicable to large micro-generation transactions dated January 1, 2009 or later.

5.3.2 Communications

- (1) Each participant utilizing the PFAM process shall designate one individual as its primary contact point for PFAM communications.
- (2) The LSA in each settlement area shall act as the conduit for the handling of PFAM claims. In all cases, the relevant LSA shall receive communications from each claimant party (“complainant”), and shall send all relevant communications back to the complainant, in accordance with the provisions of this Code.
- (3) Each LSA shall ensure that systems and procedures are established and maintained within their operations sufficient to track and process PFAM error claims on a timely basis in accordance with the provisions of this Code.
- (4) Notwithstanding the exclusion from the load settlement in subsection 4.6.4 (1)(c), the LSA shall act as the conduit for handling of small micro-generation dispute claims.
- (5) Each Market Participant shall ensure that systems and procedures are established and maintained with their operations sufficient to track and process small micro-generation dispute error claims on a timely basis.

5.3.3 Materiality Threshold and Process

(1) For Site-Level Errors Identified by the LSA

- (a) Each LSA shall monitor its settlement system for changes to the data affecting periods already final settled. When such changes are identified, the LSA will identify the net difference between the kWh final settled and the kWh that would have been settled had the updated information been provided to the LSA prior to final settlement.
- (b) Where the net difference identified as per subsection 5.3.3(1)(a) above is ± 100 kWh or greater, the LSA shall allocate the net difference to hourly intervals and prepare a Retailer Specific Adjustment (RSA) transaction set as per subsection 5.3.5(3)(a). The LSA has the option of preparing and submitting the RSA transaction sets at the same time the changes to the data are identified or of preparing and submitting them monthly in time for the ISO final statement as per subsection 5.3.7(1).
- (c) In order to ensure that the LSA has had sufficient time to process the RSA transaction set, parties other than the LSA should withhold submitting a PFAM form for one month after identifying an error.

(2) For Site-Level Errors Identified by Parties other than the LSA

- (a) Claimed PFAM errors must be submitted by the complainant to the LSA responsible for the relevant settlement area, using the PFAM Application Form shown in Appendix A. The form shall be submitted electronically, in prescribed format and with all required information.
- (b) Upon receipt of a claim form, the LSA will assign a unique PFAM reference number to the claim for tracking and processing purposes.
- (c) The LSA must send an electronic “receipt-notice” to the complainant within two Business Days of receiving the form. The receipt notice will include the PFAM reference number assigned to the claim, will confirm that the claim form has been received, will advise whether sufficient preliminary information has been submitted in relation to the claim and, if sufficient information has been included, will advise whether the LSA or some other specified party will be handling the investigation and assessment of the claim.
- (d) Where the submitted form is incomplete or otherwise lacks information required to commence an investigation of the claimed error, the LSA, after advising the complainant of the deficiency, shall not be required to take any further steps in respect of the claim unless a completed form is received.
- (e) A PFAM Application Form re-submitted by a complainant to address any format or information deficiency shall carry the PFAM reference number initially assigned by the LSA in respect of the relevant claim.
- (f) The investigating party shall complete the investigation of the claim in no more than thirty days following receipt of the claim. Where the investigating party is unable to comply with the specified timing, they must request an extension from the ISO.
- (g) Identification of Investigating Party
 - (i) Upon receipt of a PFAM Application Form in prescribed format and with all information required to commence investigation of error claim, the LSA shall make an initial determination as to whether the claimed error falls directly within

the settlement responsibilities of that LSA or of some other party; responsibility for investigation of the claimed error shall rest with the investigating party, as determined by the LSA.

- (ii) Where the claimed error pertains to load settlement responsibilities of that LSA, then the LSA shall be responsible for investigation and assessment of the claim.
- (iii) Where the claimed error pertains directly to load settlement responsibilities of a party other than the LSA, then the LSA shall immediately refer the claim to the relevant party for investigation and assessment of the claim. The LSA is not responsible for the action or inaction of that other party.
- (iv) The assessment in respect of a claim shall be referred to as the “Determination”.
- (v) The investigating party, where other than the LSA, may at its discretion communicate directly with the complainant for the purposes of investigation of the claim; however, the Determination in respect of the claim shall in all cases be communicated to the LSA, which shall then in turn communicate the Determination to the complainant accordingly.
- (vi) All error claims shall be investigated and assessed, and the Determination communicated back to the complainant on a timely basis following the receipt of the PFAM Application Form in prescribed format and content by the LSA.

(h) Discretion of Investigating Party

The investigating party shall have the primary responsibility and discretion for rendering a Determination as to whether the claim of error is valid and to what extent, and whether it should be addressed through the PFAM process, in accordance with the provisions of the Code.

(i) Investigating Party Disagrees with Claim

Where the investigating party disagrees that the claimed error should be processed through PFAM in some fashion, such Determination shall be documented by the investigating party and provided to the LSA, and the claim shall be refused on that basis. The LSA shall communicate the Determination and the basis for the assessment to the complainant who submitted the error claim, by completing and returning the relevant PFAM Application Form as applicable.

(j) Investigating Party Agrees with Claim

(i) Where the investigating party agrees that the claimed error should be processed through PFAM, such Determination shall be documented by the investigating party and provided to the LSA, and the claim shall be accepted to such extent on that basis. The LSA shall communicate the Determination and the basis for this assessment to the complainant who submitted the error claim, by completing and returning the relevant PFAM Application Form as applicable.

(ii) In accordance with the Determination accepting the claim, and where the Determination reveals a net difference between the kWh final settled and the kWh that would have been settled at final settlement had the updated information been provided to the LSA, and that net difference is ± 100 kWh or more, the LSA shall allocate the net difference to hourly intervals and prepare an RSA transaction set as per subsection 5.3.5(3)(a).

(iii) The agreed PFAM adjustment(s) shall be forwarded to the ISO by the LSA. Any Determination agreed to by the LSA or communicated to the LSA by the investigating party thirteen Business Days prior to the ISO's final statement issue date must be sent to the ISO not less than eight Business Days prior to the ISO's final statement issue date.

(k) LSA to Notify Affected Parties

In all cases where the claim has been dismissed, rejected or accepted, the LSA shall ensure that all other parties affected by the Determination of the claim are duly notified in writing. Such written communication may be in electronic form.

(l) Proof of Notification

In all circumstances, the onus of proof of required communication of the Determination to the complainant and other affected parties shall rest with the LSA.

(3) For System-Level Errors

(a) When the MDM identifies errors in system-level data affecting periods already final settled, and where the net difference resulting from those errors is ± 100 kWh or greater, the MDM shall notify the ISO and the LSA and submit revised DSM records as per section 9.6.2.4.1 to the LSA and ISO or revised GIM records as per section 9.6.1.2 to the Retailer of Record, the LSA and ISO.

(b) The LSA shall prepare the Transmission Administrator Adjustment (TAA) transaction set as per subsection 5.3.5(2)(c).

5.3.4 Dispute Resolution

- (1) Where the complainant or any other affected party does not agree with a Determination in respect of a claim, they may contact the ISO to seek resolution. If the complainant wishes to dispute the ISO's Determination, the complainant may request a review by the Commission. The Commission will then make a final Determination.
- (2) The PFAM adjustment transaction specified by the investigating party and communicated by the LSA to the ISO will be processed through PFAM at the time of Determination, but may be subject to later review if the dispute resolution process is invoked.
- (3) If the complainant or any other affected party wishes to dispute the Determination, they must notify the LSA as to the details of their dispute in writing, within ten Business Days immediately following receipt of the Determination.

5.3.5 Processing of PFAM Adjustments

(1) The LSA is responsible for calculating RSA, RAM and TAA transactions, as specified below, in relation to each PFAM adjustment, as applicable, and for submitting those adjustments to the ISO.

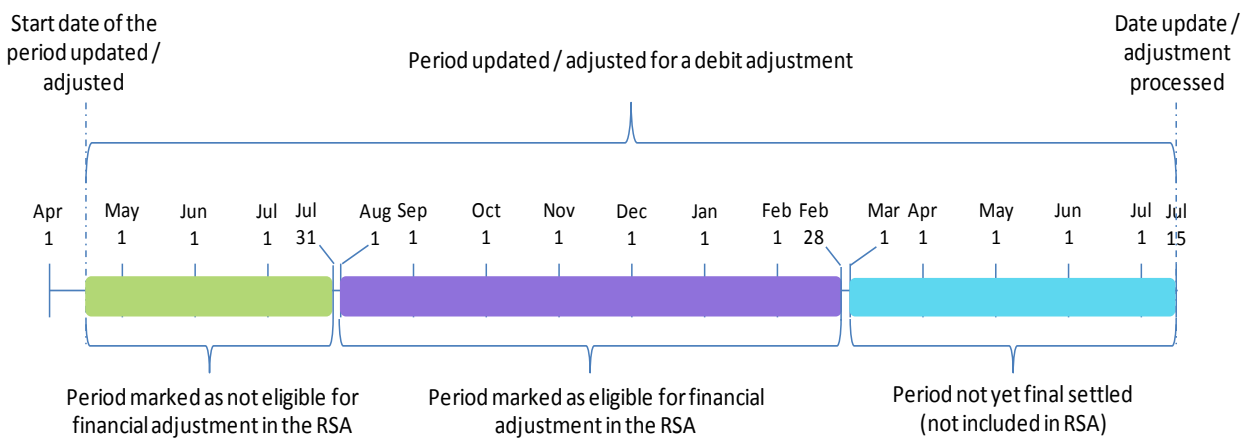
(2) The following transactions are specified to be included in PFAM: RSA, RAM and TAA, as set out below.

(a) Retailer Specific Adjustment (RSA) Transaction Set

For errors meeting the criteria set out in subsections 5.3.3(1)(b) or 5.3.3(2)(j)(ii):

- (i) Where the kWh final settled are greater than the kWh that would have been settled had the updated information been provided to the LSA prior to final settlement (credit adjustment), the LSA will mark all intervals as eligible for financial adjustment except those intervals more than eight years old from the date the RSA is prepared.
- (ii) Where the kWh final settled are less than the kWh that would have been settled had the updated information been provided to the LSA prior to final settlement (debit adjustment), the LSA will mark all intervals as eligible for financial adjustment except those intervals of a date prior to the first day of the month that is eleven months prior to the date the data is updated and the adjustment is processed (see Figure 1. PFAM Example – Debit Adjustment, below).

Figure 1. PFAM Example – Debit Adjustment



- (iii) The RSA transaction, as specified in section 9.6.6.1, identifies the specific hourly adjustment to energy for each Retailer, and each adjustment may be either positive or negative. The RSA amount will be applied to the Retailer of Record for the Site at the time of the error.
- (iv) A consolidated file for total RSA within each load settlement area will be sent by the LSA to the ISO every month. At the same time, the detail as to specific adjustments will be transmitted by the LSA to each relevant Retailer, as applicable.
- (v) Customers directly connected to the transmission system as described in subsection 4.2.1 (2) of the Code (Direct Connect customers) are eligible for RSAs.

(b) Retailer Adjustment to Market (RAM) Transaction

In order to allow the ISO to calculate the correct RAM allocations for Retailers, the LSA shall provide, on a monthly basis, and at the same time as the consolidated RSA file, the total zone energy consumption, line loss and UFE by Retailer for the appropriate settlement month, excluding that from direct connect Sites:

- (i) The RAM transaction, as specified in section 9.6.6.2, identifies the total of the energy consumption, line loss and UFE for all Sites of each Retailer/RRP, excluding direct connect Sites, in the relevant settlement area in accordance with subsection (v) below.
- (ii) RAM is allocated across the settlement zone in which the error occurred.

- (iii) RAM is not disputable through the PFAM process as it relates to the aggregate adjustment for error calculation underlying the RAM calculation.
 - (iv) The ISO shall use the final settlement data included in the **final** statement, as described in subsection 5.3.7 (1), to allocate RAM amongst the Retailers in the relevant settlement zone.
 - (v) The LSA shall separate the RAM charges for 2001 errors from all other errors, and provide the separated values in two files for the ISO.
- (c) Transmission Administrator Adjustment (TAA) **Transaction Set**

For errors meeting the criterion set out in subsections 5.3.3(3)(a):

- (i) The TAA, **as specified in section 9.6.6.3, identifies** system level meter errors that have been brought forward to the PFAM process. Details of the TAA calculation shall be transmitted by each LSA to the ISO on a monthly basis. The ISO will then make the necessary adjustments in billings to the transmission line losses; such adjustments may be either positive or negative.

5.3.6 Transaction Mechanism and File Format

- (1) The RSA, RAM and TAA transactions will be provided to the ISO in CSV format by the LSAs, via DropChute™ using the ISO ID for Financial Settlement purposes as described in section 9.4.6.9. Each Retailer's specific RSA **transaction sets** will also be sent to Retailers by the LSAs in CSV format via DropChute™.

5.3.7 Financial Adjustments

- (1) PFAM adjustment **transactions submitted by the LSA to the ISO eight Business Days prior to the ISO final statement issue date will be included on the ISO's final statement. Where this timeline is** not met, the adjustment will be made on the following month's **final** statement from the ISO.
- (2) The ISO shall accept the PFAM adjustments submitted by the LSA and apply the relevant historic ISO pool price to the data in order to arrive at the applicable financial adjustment(s).
- (3) The financial adjustments and allocations will be included on the relevant ISO statements in accordance with the provisions of the ISO Rules.

5.3.8 PFAM Reporting to Retailers

- (1) The LSA shall provide to each Retailer a monthly report of all PFAM adjustments processed for the Retailer's sites throughout the month. This report shall include the PFAM reference number and the reason for the PFAM, classifying each PFAM according to one of the following reasons:
 - (a) **meter read obtained after final settlement**
 - (b) **meter multiplier error**
 - (c) **crossed meter**
 - (d) **apparatus or meter malfunction**

(e) theft or meter bypass

(f) meter read error

(g) connection error

(h) enrollment error

(i) calculation error

6 Functional Requirements of the Core Load Settlement Calculation

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

6.1 Data Versions and Revisions

- (1) These rules define load settlement outputs for a given settlement zone for a given hour of energy flow (hour t) for settlement run “as at” datetime T. “As at” means “using the most recent version of data in the load settlement Input database at datetime T.” Timing rules for monthly, interim, and final settlement which define acceptable values of the database datetime used to calculate settlement T for a given hour of energy flow t are specified in section 4.4.
- (2) An exception is made to the data revision rules in subsection (1) above, for load profiles and profiled Sites. All profiles, for a given hour of flow t, must be frozen on their first usage for all MAAT settlement runs; that is, they may not be revised on subsequent respective settlement runs, even when the data used to calculate the profile, such as POD loads and interval metered loads, are revised for the other settlement computations. To allow sufficient time to finalize these profiles, load settlement generates and uses the profiles only up to a profile freeze cutoff date. Because profiles are not used for days of flow past the profile freeze cutoff, cumulative meter reads that cover dates past the cutoff cannot be profiled, and such Sites are treated as though the cumulative meter read were missing for that MAAT settlement run; however such reads may be used in subsequent MAAT settlement runs subject to the same cutoff rules.

The profile freeze cutoff dates are as follows:

- (a) For monthly settlement, the end of the last calendar day of the month being settled.
- (b) For interim settlement, the end of the last calendar day of the calendar month following the month being settled.
- (c) For final settlement, the end of the last day of the third calendar month following the month being settled.

6.2 Assumptions : No change in this section

6.3 Load Settlement Inputs and Outputs: No change in this section

6.4 Required Load Settlement Reports: No change in this section

6.5 Diagnostics: No change in this section

7 Information Exchange

7.7 Remove Load Limiter and Leave Power On

When a load limiter is installed at a Site and the Retailer would like it removed with power fully restored, the process is listed as follows:

- (4) If the WSP is unable to remove the limiter, an ENF is sent to the Retailer with the appropriate transaction status code to explain why the limiter cannot be removed.

7.8 Remove Load Limiter and Disconnect Power

When a load limiter is installed at a Site and the Retailer would like it removed with power fully disconnected, the process is listed as follows:

- (4) If the WSP is unable to remove the limiter, a DEF is sent to the Retailer with the appropriate transaction status code to explain why the limiter cannot be removed.

7.10 Streetlights

7.10.1 Streetlight Grouping Process

- (1) The WSP must collaborate with the legal entity financially responsible for the energy consumption for a given Streetlight (Streetlight Customer) to determine which Streetlights will be included as part of a Grouped Streetlight. Retailers may also be included in the Streetlight grouping discussions if requested by the Streetlight Customer.
- (2) Once the WSP and Streetlight Customer have agreed upon the Streetlights to be grouped, the WSP must create one or more Grouped Streetlights. The WSP may only create as many Grouped Streetlights as are required to ensure each Grouped Streetlight complies with subsection (3).
- (3) Streetlights assigned to a Grouped Streetlight must:
 - (a) be assigned the same tariff rate code, profile type, profile class and loss group code;
 - (b) belong to the same settlement zone and franchise area; and
 - (c) belong to the same Streetlight Customer.
- (4) When changes to a Grouped Streetlight are required at the request of the Streetlight Customer, the WSP must add or remove Streetlights from or to the Grouped Streetlight in accordance with subsection (3) above. The WSP may notify the Retailer of Record and/or the Streetlight Customer following any changes to a Grouped Streetlight.
- (5) In the event a Streetlight Customer is no longer financially responsible for a portion of the Streetlights assigned to a Grouped Streetlight, the Grouped Streetlight must be modified accordingly through consultation with both the old and the new Streetlight Customer.

7.10.2 Streetlight Information Exchange

- (1) Once the Grouped Streetlight has been created, the WSP must follow the rules set out in section 9.4.6.14 to have the Grouped Streetlight reflected in the Site ID catalogue.
- (2) A Retailer, following a request from the Streetlight Customer to enroll a Grouped Streetlight, must follow the process rules set out in section 9.6.3 to request an enrollment of the Grouped Streetlight with the LSA.
- (3) Section 2.5 of the Code does not apply to a Grouped Streetlight and is replaced by the following:
 - (a) The energized status of a Grouped Streetlight, as specified in the SMC transaction, is not indicative of the physical energized state of the lights assigned to that Grouped Streetlight.
 - (b) Where a WSP has provided an SMC transaction to the Retailer of Record, following successful enrollment of a Grouped Streetlight, and that SMC indicates the Grouped Streetlight is not energized, the Retailer of Record must send an ENR transaction to the WSP within one business day to start the settlement process for the Grouped Streetlight.

(c) A DER transaction is not required to be sent by the Retailer of Record when a Grouped Streetlight is to be salvaged.

(4) Energy consumption and demand, where applicable, for a Grouped Streetlight must be provided by the MDM to the LSA and Retailer of Record via DCM transactions. They must represent consolidated information, all in accordance with section 9.6.1.3 where applicable (e.g. the meter number field will not be populated nor will other fields applicable only to metered Sites).

(5) A WSP must provide additional information regarding and in support of a Grouped Streetlight to the Retailer of Record and/or the Streetlight Customer responsible for that Grouped Streetlight following an inquiry from either party.

(6) All other information exchange standards set out in this Code that apply to a Site ID also apply to a Grouped Streetlight.

8 Standards for Load Profiles Based on Load Research Samples: No change in this section

9 Information Exchange Standards

9.1 Purpose : No change in this section

9.2 Scope : No change in this section

9.3 Revisions: No change in this section

9.4 Universal Standards: No change in this section

9.5 Transaction Principles: No change in this section

9.6 EBT Provincial Standard Transactions

9.6.1.3 Daily Cumulative Meter Consumption to Retailers and LSA — Process Rules

(4) DCM provision during Retailer switch

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

9.6.1.4 Micro-Generation Cumulative Meter Consumption to Retailers — Process Rules

Table 9, GCM Transaction Layout

Field 8, KWh field is changed to **Number (12,4)**

9.6.2 Wholesale Settlement Data Transfers

9.6.2.1 Wholesale Settlement Information—Process Rules

9.6.2.2 Settlement Summary Information—Process Rules

9.6.2.3 Settlement Profile Information—Process Rules

9.6.2.4 System Level Measurement Data Provision

9.6.2.5 Wholesale Settlement Summary – Process Rules

- (1) This transaction is a control report, providing a monthly summation. The WSS report is sent in conjunction with the WSI transaction containing the settlement data for the last calendar day of the month. **The WSS is required for the Monthly, Interim and Final Settlement only.**
- (2) Transactions that are sent to Retailers are sent to the specific Retailers only.
- (3) Transactions that are sent to the ISO include data for all Retailers.
- (4) The WSS files must be provided to the ISO using DropChute™ using the ISO ID for Financial Purposes as described in section 9.4.6.9.

Table 15. WSS Transaction Layout

Sequence	Element (in sequence)	Data Type/Size	Description
1	Transaction Abbreviation	'WSS'	Abbreviation for the transaction name
2	Transaction Date Time	Date time format	Later of the time the transaction was created or last modified
3	LSA ID	LSA ID format	Sender
4	ISO Financial ID	ISO Financial ID format	Recipient
5	Retailer ID	Retailer ID format	Recipient
6	Business Function ID	Varchar (2)	Optional at the discretion of the LSA
7	Zone ID	Zone ID format	Settlement zone
8	Settlement Type	Char(1)	'M', 'R', 'F' for Monthly, Interim or Final respectively.
9	Settlement Month	YYYYMM	Year and month of the settlement data being summarized
10	Retailer Usage Total (kWh)	Number (17,4)	Total of the consumption for all of the Retailer's customers in the month
11	Retailer Loss Total (kWh)	Number (17,4)	Total of the losses allocated to all of the Retailer's customers in the month
12	Retailer UFE Total (kWh)	Number (17,4)	Total of the UFE allocated to all of the Retailer's customers in the month
13	Retailer Energy Grand Total (MWh)	Number (17,7)	Total of the consumption, line loss and UFE for all the Retailer's customers in the month
14	Transaction Status Code	Char (4)	Used by the recipient to notify the sender of problems with the transaction. When this field is used it must be dealt with at a minimum, in a manual fashion. The use of this electronic transaction in an automated fashion (in case of problems) is subject to the WO T+Cs. When using this transaction status code, the codes in Appendix A of the Code must be used.

9.6.1.3 System Level Measurement Data Provision : No change in this section

9.6.1.4 Wholesale Settlement Summary—Process Rules : No change in this section

9.6.2 Select Retailer Transaction Set : No change in this section

9.6.3 Update Customer Information Transaction Set : No change in this section

9.6.4 Update Site Information Transaction Set

Table 23 Update Customer Information

Remove “International Codes” reference from field #44

Renamed field #98 to “Alternate Contact Person”

9.6.5 Update Site Information Transaction Set : No change in this section

9.6.6 Post Final Adjustment Mechanism Transaction Set

9.6.6.3 Retailer Specific Adjustment—Process Rules

(1) The total energy identified in MWh may be either positive or negative. A positive number means the Retailer pays the ISO and a negative number means that the ISO pays the Retailer.

Table 27. RSA Transaction Layout

Sequence	Element	Data Type/Size	Description
1	Transaction Abbreviation	'RSA'	Abbreviation for the transaction
2	Transaction Date Time	Date time format	Later of the time the transaction was created or last modified
3	LSA ID	LSA ID format	Sender
4	PFAM Reference #	Number (10)	PFAM Submission Reference Number
5	Retailer ID	Retailer ID Format	Recipient (Retailer of Record associated with the Site for period under dispute Site)
6	Site ID	Site ID Format	See definition in Universal Standard section of the Code
7	Settlement Interval Ending Time	Date time format	Date and time of the interval the data is for
8	Interval Period	Number (4)	Number of minutes in the interval period. 60 is the current standard
9	Settlement Hours Ending	Char (3)	See definition. Third character is to be used for asterisk as described in the definition, but otherwise blank.
10	Consumption (kWh)	Number (12,4)	Adjustment to consumption for PFAM
11	UFE (kWh)	Number (12,4)	Adjustment to UFE for PFAM
12	Loss (kWh)	Number (12,4)	Adjustment to Losses for PFAM
13	Total Energy (MWh)	Number (12,7)	Total of the consumption, line loss and UFE for the PFAM in MWh for the ISO.
14	Financial Eligibility	Char (1)	Y – Eligible for financial adjustment N – Not eligible for financial adjustment (information only)

Sequence	Element	Data Type/Size	Description
	Indicator		

9.6.7 Energize/De-Energize Site : No change in this section.

9.6.8 De-Select Retailer Transaction Set : No change in this section

9.7 Transaction Sets with Standard Content : No change in this section

9.8 Settlement System Code Transaction Status Code : No Change in this section

10 Dropchute™ Security Requirements : No change in this section

11 Performance Standards for Meter Data Managers Operating in the Province of Alberta : No change in this section

12 Compliance Monitoring Standards : No change in this section

Appendix A

Table A-9 add the followings:

“Market participants’ systems must only use SSC status codes related to the specific transaction(s) they are linked to. Transaction status code 0027 - “Other - Call Distributor for Details” should not be used in place of any of the listed transaction status codes unless no suitable code is found.”

Universal Transaction Status Codes

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

Enrollment/De-Enrollment Transaction Status Codes

Status Code	Description	Transaction	Sender	Recipient
0005	Invalid retailer ID	SRN, DSN, RDN	WSP, LSA	Retailer
0006	Invalid retailer ID – not eligible for new switches	SRN	LSA	Retailer
0007	Invalid retailer ID – not valid for this wire services provider	SRN	LSA	Retailer
0008	Invalid retailer ID for site	SRN, DSN, RDN	WSP	Retailer
0011	Invalid Wire Service provider ID	DSN, RDN	WSP	Retailer
0012	Invalid Wire Services Provider ID for Site	DSN, RDN	WSP	Retailer
0013	Invalid Site ID	SRN, DSN, RDN	WSP, LSA	Retailer
0014	Site already enrolled with this Retailer/RRP	SRN	LSA	Retailer
0015	Site has been salvaged	SRN, DSN, RDN	WSP, LSA	Retailer
0016	Site not allowed to switch	SRN	LSA	Retailer
0017	Switch has already been processed for site	SRN	LSA	Retailer
0018	Invalid Priority Code	SRN	LSA	Retailer
0019	Invalid requested de-select date format	DSN, RDN	WSP	Retailer
0021	Transaction Status Code Must Be Blank	SRN	LSA	Retailer
0022	Business Function ID Must Be Blank	SRN, DSN, RDN	WSP, LSA	Retailer
0024	Invalid Number of Fields in the Transaction	SRN, DSN, RDN	WSP, LSA	Retailer
0026	Invalid Business Function ID	SRN, RDN	WSP, LSA	Retailer
0027	Other – Call Distributor for Details	SRN, DSN, RDN	WSP, LSA	Retailer

0050	Site not eligible for RRO	SRN	LSA	Retailer
0051	Valid update customer information not received	SRN	LSA	Retailer
0190	Retailer/RRP Account Number Field too long	SRN	LSA	Retailer
0191	Retailer/RRP Reference Number Field too long	SRN	LSA	Retailer
0198	Invalid requested de-select date - notification period too long	DSN	LSA	Retailer
0200	Invalid de-select reason	DSN	LSA	Retailer
0201	Invalid requested de-select date - format, length, missing	DSN	LSA	Retailer
0202	Already De-Selected	DSN	LSA	Retailer
0203	Requested Deselect Date Greater Than 60 Days	DSN	LSA	Retailer
0551	Profile Class invalid – format, length, missing	SRN	LSA	Retailer
1002	Loss Group Code invalid – format, length, missing	SRN	LSA	Retailer
1003	Enrollment Notification invalid – format, length, missing	SRN	LSA	Retailer
1004	Retailer/RRP Account Number invalid – format, length	SRN	LSA	Retailer
1005	LSA Transfer Number invalid – format, length	SRN	LSA	Retailer
1052	Switch Date Time invalid – format, length	SRN	LSA	Retailer
1209	De-Select Not Requested	RDN	WSP	Retailer
1230	De-Select Cancellation Too Late	RDN	WSP	Retailer
1231	De-Select Not in Progress	RDN	WSP	Retailer
8518	Pending Enrollment Already Exists for Site	RDN	WSP	Retailer
8719	Invalid Retailer Certification Level for Transaction	SRN	WSP	Retailer
8720	Site is Not Enrollable	SRN	WSP	Retailer

MDM Transaction Status Codes

Status Code	Description	Transaction	Sender	Recipient
0003	Invalid meter data manager ID	DCM, GCM, DIM, GIM, SRW	MDM	Retailer, WSP
0004	Invalid meter data manager ID for site	DCM, GCM, DIM, GIM, SRW	MDM	Retailer, WSP
0005	Invalid retailer ID	DCM, GCM, DIM, GIM, SRW	MDM	Retailer, WSP
0008	Invalid retailer ID for site	DCM, GCM, DIM, GIM, SRW	MDM	Retailer, WSP
0009	Invalid settlement ID	DCM, DIM, SRW	MDM	Retailer, WSP
0011	Invalid wire services provider ID	SRW	MDM	WSP
0012	Invalid wire services provider ID for site	SRW	MDM	WSP
0013	Invalid site ID	DCM, GCM, DIM, GIM, SRW	MDM	Retailer, WSP
0020	Invalid socket ID	DCM, DIM	MDM	Retailer, WSP
0021	Transaction Status Code must be blank	DCM, GCM, DIM, GIM	MDM	Retailer, WSP
0022	Business Function ID must be blank	DCM, DIM, SRW	MDM	Retailer, WSP
0024	Invalid number of fields in the transaction	DCM, GCM, DIM, GIM, SRW	MDM	Retailer, WSP
0026	Invalid business function ID	DCM, GCM	MDM	SRW
0196	Invalid meter information	DCM, GCM	MDM	Retailer

Status Code	Description	Transaction	Sender	Recipient
0501	Meter Number invalid – format, length	DCM, GCM	MDM	Retailer
0503	Max kVA invalid - format, length, missing	DCM, GCM	MDM	Retailer
0504	Max kW invalid - format, length, missing	DCM, GCM	MDM	Retailer
0505	Last Reading Date Time invalid – format, length	DCM, GCM	MDM	Retailer
0506	Current Reading Date Time invalid – format, length	DCM, GCM	MDM	Retailer
0507	Last Meter Dial Reading invalid – format, length	DCM, GCM	MDM	Retailer
0508	Current Meter Dial Reading invalid – format, length	DCM, GCM	MDM	Retailer
0509	Max Reading (Watt) invalid - format, length, missing on kWh meter	DCM, GCM	MDM	Retailer
0510	Max Reading (Volt amp) invalid - format, length, missing on kVA meter	DCM, GCM	MDM	Retailer
0511	Meter Multiplier invalid - format, length, missing	DCM, GCM	MDM	Retailer
0515	Record Status invalid – format, length	DCM, GCM	MDM	Retailer
0516	Cumulative meter read to be cancelled does not exist	DCM, GCM	MDM	Retailer
0517	Fields differ from original Meter Read, cancel aborted	DCM, GCM	MDM	Retailer
0518	Use of one of the Meter Read dates would create an overlap	DCM, GCM	MDM	Retailer
0519	CA record encountered after regular reads, Cancel aborted	DCM, GCM	MDM	Retailer
0520	Meter read values and consumption cannot be negative	DCM, GCM	MDM	Retailer
0550	Load Research Flag invalid – format, length, missing	DIM	MDM	Retailer
0551	Profile Class invalid – format, length, missing	DIM	MDM	Retailer
0552	kW invalid – format, length, missing	DIM, GIM	MDM	Retailer
0553	kWh invalid – format, length	DIM, GIM, GCM	MDM	Retailer
0554	kVA invalid – format, length, missing	DIM	MDM	Retailer
0555	kVAh invalid – format, length, missing	DIM	MDM	Retailer
0556	kVAR invalid – format, length, missing	DIM	MDM	Retailer
0557	kVARh invalid – format, length, missing	DIM	MDM	Retailer
0558	Date Time invalid – format, length, missing	DIM, GIM	MDM	Retailer
0559	Interval Period invalid – format, length, missing	DIM, GIM	MDM	Retailer
0560	Hour Ending invalid – format, length, missing	DIM, GIM	MDM	Retailer
0561	Demand (kW) Status invalid – format, length	DIM, GIM, DCM	MDM	Retailer
0562	Consumption (kWh) Status invalid – format, length	DIM, GIM, DCM, GCM	MDM	Retailer
0563	Demand (kVA) Status invalid – format, length, missing	DIM, DCM	MDM	Retailer
0564	Demand (kVAh) Status invalid – format, length, missing	DIM	MDM	Retailer
0565	Demand (kVAR) Status invalid – format, length, missing	DIM	MDM	Retailer
0566	Demand (kVARh) Status invalid – format, length, missing	DIM	MDM	Retailer
0567	Profiling Class invalid or missing for Sample meter record	DIM	MDM	Retailer
0568	Interval Record would create a GAP, previous	DIM	MDM	Retailer

Status Code	Description	Transaction	Sender	Recipient
	read must be estimated			
0569	Meter read values and consumption cannot be negative, unless the site is set up as having distributed generation then consumption can be negative	DIM	MDM	Retailer
1052	Switch Date Time invalid – format, length	SRW	MDM	Retailer, WSP

LSA Transaction Status Codes

Status Code	Description	Transaction	Sender	Recipient
0005	Invalid retailer ID	WSI	LSA	Retailer
0008	Invalid retailer ID for site	WSI	LSA	Retailer
0009	Invalid settlement ID	WSI	LSA	Retailer
0013	Invalid site ID	WSI	LSA	Retailer
0021	Transaction Status Code Must be Blank	WSI	LSA	Retailer
0024	Invalid number of fields in the transaction	WSI	LSA	Retailer
0025	Zone ID invalid - format, length, missing	WSI	LSA	Retailer
0026	Invalid business function ID	WSI	LSA	Retailer
0559	Interval Period invalid – format, length, missing	WSI	LSA	Retailer
1100	Client Wire Services Provider ID invalid – format, length	WSI	LSA	Retailer
1101	Settlement Run Date Time invalid – format, length, missing	WSI	LSA	Retailer
1102	Settlement As At Date Time invalid – format, length, missing	WSI	LSA	Retailer
1103	Settlement Type invalid – format, length, missing	WSI	LSA	Retailer
1104	Profile Freeze Cutoff Date invalid -format, length, missing	WSI	LSA	Retailer
1105	Settlement Interval Ending Date Time invalid – format, length, missing	WSI	LSA	Retailer
1107	Settlement Hour Ending invalid – format, length, missing	WSI	LSA	Retailer
1108	Retailer/RRP Usage Total (kWh) invalid – format, length, missing	WSI	LSA	Retailer
1109	Retailer/RRP Loss Total (kWh) invalid – format, length, missing	WSI	LSA	Retailer
1110	Retailer/RRP UFE Total (kWh) invalid – format, length, missing	WSI	LSA	Retailer
1111	Retailer/RRP Energy Grand Total (MWh) invalid – format, length, missing	WSI	LSA	Retailer

WSP Transaction Status Codes

Status Code	Description	Transaction	Sender	Recipient
0005	Invalid retailer ID	DEF, ENF, ROC, GRN	WSP	Retailer
0008	Invalid retailer ID for site	DEF, ENF, ROC	WSP	Retailer
0011	Invalid wire services provider ID	DEF, ENF, ROC, GRN	WSP	Retailer
0013	Invalid site ID	DEF, ENF, ROC, GRN	WSP	Retailer
0018	Invalid priority code	DEF, ENF, ROC	WSP	Retailer
0020	Invalid socket ID	GRN	WSP	Retailer
0024	Invalid number of fields in the transaction	DEF, ENF, GRN	WSP	Retailer
0026	Invalid business function ID	DEF, ENF, GRN	WSP	Retailer

Status Code	Description	Transaction	Sender	Recipient
0027	Other – Call distributor for details	DEF, ENF, GRN	WSP	Retailer
0058	Meter access notes field too long	ROC	WSP	Retailer
1200	Already de-energized	DEF	WSP	Retailer
1201	Requested de-energize date invalid – format, length, missing	DEF	WSP	Retailer
1202	Requested de-energize reason invalid – format, length, missing	DEF	WSP	Retailer
1203	Already energized	ENF	WSP	Retailer
1204	Requested energize date invalid – format, length, missing	ENF	WSP	Retailer
1205	Distributor does not have infrastructure/not ready	ENF	WSP	Retailer
1206	De-energize not requested	RDR	WSP	Retailer
1208	Off-cycle read date invalid – format, length, missing	ROC	WSP	Retailer
1210	Customer – access refused	DEF, ENF, ROC	WSP	Retailer
1212	Contact name missing or incorrect	DEF, ENF	WSP	Retailer
1213	Contact phone missing or invalid	DEF, ENF	WSP	Retailer
1215	Request date cannot be in the past	DEF, ENF, ROC	WSP	Retailer
1216	Incorrect premises	DEF	WSP	Retailer
1217	Distributor – No access to site	DEF, ENF, ROC	WSP	Retailer
1218	No longer required	DEF, ENF, ROC	WSP	Retailer
1220	Site locked for CONP	ENF	WSP	Retailer
1221	Work volume exceeded	DEF	WSP	Retailer
1222	Customer safety/Critical impact to customer	DEF, ENF	WSP	Retailer
1223	Customer Not Moving	DEF	WSP	Retailer
1224	Load limiter installed	DEF	WSP	Retailer
1225	More Than One Customer Affected	DEF	WSP	Retailer
1226	New Customer	DEF	WSP	Retailer
1304	Customer construction not completed	ENF	WSP	Retailer
1306	Meter base or Meter socket issue/damage	ENF	WSP	Retailer
1317	Duplicate work order request	DEF, ENF, ROC	WSP	Retailer
1323	Seasonal/Temperature disconnect policy in place	DEF	WSP	Retailer
1401	Temperature Outside Limits	DEF	Gas Distributor Only	Retailer
1402	Disconnect Warning Notice Left at Site	DEF	WSP	Retailer
8701	Message to WSP is too Long	DEF, ENF	WSP	Retailer
8715	Breakers on at Site	DEF	WSP	Retailer
8755	Tampering	ENF	WSP	Retailer
8760	Distributor Safety	DEF, ENF	WSP	Retailer
8763	CONP - Paid Receipt Shown	DEF	WSP	Retailer
8764	Wrong De-Energize Type Request Received	DEF	WSP	Retailer

Retailer Transaction Status Codes

Status Code	Description	Transaction	Sender	Recipient
0005	Invalid retailer ID	GRS	Retailer	AESO
0013	Invalid site ID	GRS	Retailer	AESO
0024	Invalid number of fields in the transaction	GRS	Retailer	AESO

UCI Transaction Status Codes - Customer Information

Status Code	Description	Transaction	Sender	Recipient
0061	Customer first, last, and middle names not allowed with customer company name	UCI	Retailer	WSP

Status Code	Description	Transaction	Sender	Recipient
0062	Customer Company Name Field too long	UCI	Retailer	WSP
0063	Customer first name required	UCI	Retailer	WSP
0064	Customer First Name Field too long	UCI	Retailer	WSP
0065	Customer last name required	UCI	Retailer	WSP
0066	Customer Last Name Field too long	UCI	Retailer	WSP
0067	Customer Middle Name Field too long	UCI	Retailer	WSP
0068	Customer name required	UCI	Retailer	WSP
0069	City is required	UCI	Retailer	WSP
0070	City Field too long	UCI	Retailer	WSP
0071	Invalid city quadrant	UCI	Retailer	WSP
0072	Compartment Field too long	UCI	Retailer	WSP
0073	Country is required	UCI	Retailer	WSP
0074	Invalid country	UCI	Retailer	WSP
0075	Customer mailing address required	UCI	Retailer	WSP
0076	Invalid mailing address combination	UCI	Retailer	WSP
0077	Only one of civic address, delivery address, road address, or foreign address may be included	UCI	Retailer	WSP
0078	An address for suburban services, mobile or rural routes cannot have a delivery installation.	UCI	Retailer	WSP
0079	Delivery Installation Name Field too long	UCI	Retailer	WSP
0080	Foreign Address 1 Field too long	UCI	Retailer	WSP
0081	Foreign Address 2 Field too long	UCI	Retailer	WSP
0082	Foreign Address 3 Field too long	UCI	Retailer	WSP
0083	Foreign Address 4 Field too long	UCI	Retailer	WSP
0084	Invalid general delivery indicator	UCI	Retailer	WSP
0085	House Number Field too long	UCI	Retailer	WSP
0086	House Number Required	UCI	Retailer	WSP
0087	Letter Carrier Depot Field too long	UCI	Retailer	WSP
0088	Lot ID Field too long	UCI	Retailer	WSP
0089	Mobile Route Field too long	UCI	Retailer	WSP
0090	Post Office Box Field too long	UCI	Retailer	WSP
0091	Post Road Number Field too long	UCI	Retailer	WSP
0092	Post road number required	UCI	Retailer	WSP
0093	Invalid postal code format	UCI	Retailer	WSP
0094	Pre Road Number Field too long	UCI	Retailer	WSP
0095	Pre road number required	UCI	Retailer	WSP
0096	Invalid province / state code	UCI	Retailer	WSP
0097	Province / state code is required	UCI	Retailer	WSP
0098	Retail Postal Outlet Field too long	UCI	Retailer	WSP
0099	Invalid road type	UCI	Retailer	WSP
0100	Road type required	UCI	Retailer	WSP
0101	Rural Route Field too long	UCI	Retailer	WSP
0102	Site Number Field too long	UCI	Retailer	WSP
0103	Site number is only valid when used in combination with a rural route	UCI	Retailer	WSP
0104	Station Name Field too long	UCI	Retailer	WSP
0105	Invalid street direction code	UCI	Retailer	WSP
0106	Street Name Field too long	UCI	Retailer	WSP
0107	Street name required	UCI	Retailer	WSP
0108	Invalid street pre-direction code	UCI	Retailer	WSP
0109	Invalid street type code	UCI	Retailer	WSP
0110	Street type code required	UCI	Retailer	WSP
0111	Suburban Service Field too long	UCI	Retailer	WSP
0112	Invalid unit definer	UCI	Retailer	WSP
0113	Unit definer not allowed with unit number	UCI	Retailer	WSP

Status Code	Description	Transaction	Sender	Recipient
0114	Unit Number Field too long	UCI	Retailer	WSP
0115	Customer E-mail Address Field too long	UCI	Retailer	WSP
0116	Invalid customer fax number	UCI	Retailer	WSP
0117	Invalid customer mobile number	UCI	Retailer	WSP
0118	Invalid customer pager number	UCI	Retailer	WSP
0119	Invalid customer phone number	UCI	Retailer	WSP
0193	Invalid customer business phone number	UCI	Retailer	WSP
0194	Invalid contact business phone number	UCI	Retailer	WSP
0195	Invalid owner business phone number	UCI	Retailer	WSP

UCI Transaction Status Codes - Contact Information

Status Code	Description	Transaction	Sender	Recipient
0120	Company Name Field too long	UCI	Retailer	WSP
0121	First, last, and middle names not allowed with company name	UCI	Retailer	WSP
0122	First Name Field too long	UCI	Retailer	WSP
0123	First Name required	UCI	Retailer	WSP
0124	Last Name Field too long	UCI	Retailer	WSP
0125	Last Name required	UCI	Retailer	WSP
0126	Middle Name Field too long	UCI	Retailer	WSP
0127	Contact Name is required	UCI	Retailer	WSP
0128	E-mail Address Field too long	UCI	Retailer	WSP
0129	Invalid fax number	UCI	Retailer	WSP
0130	Invalid mobile number	UCI	Retailer	WSP
0131	Invalid pager number	UCI	Retailer	WSP
0132	Invalid phone number	UCI	Retailer	WSP

UCI Transaction Status Codes - Owner Information

Status Code	Description	Transaction	Sender	Recipient
0133	Owner Company Name Field too long	UCI	Retailer	WSP
0134	First, last, and middle names not allowed with company name	UCI	Retailer	WSP
0135	Owner First Name Field too long	UCI	Retailer	WSP
0136	Owner First Name required	UCI	Retailer	WSP
0137	Owner Last Name Field too long	UCI	Retailer	WSP
0138	Owner Last name required	UCI	Retailer	WSP
0139	Owner Middle Name Field too long	UCI	Retailer	WSP
0140	City is required	UCI	Retailer	WSP
0141	City Field too long	UCI	Retailer	WSP
0142	Invalid city quadrant	UCI	Retailer	WSP
0143	Compartment Field too long	UCI	Retailer	WSP
0144	Country is required	UCI	Retailer	WSP
0145	Invalid country	UCI	Retailer	WSP
0146	An address for suburban services, mobile or rural routes cannot have a delivery installation	UCI	Retailer	WSP
0147	Delivery Installation Name Field too long	UCI	Retailer	WSP
0148	Foreign Address 1 Field too long	UCI	Retailer	WSP
0149	Foreign Address 2 Field too long	UCI	Retailer	WSP
0150	Foreign Address 3 Field too long	UCI	Retailer	WSP
0152	Invalid general delivery indicator	UCI	Retailer	WSP
0153	House Number Field too long	UCI	Retailer	WSP
0154	House number required	UCI	Retailer	WSP
0155	Letter Carrier Depot Field too long	UCI	Retailer	WSP
0156	Lot ID Field too long	UCI	Retailer	WSP

Status Code	Description	Transaction	Sender	Recipient
0157	Mobile Route Field too long	UCI	Retailer	WSP
0158	Invalid mailing address combination	UCI	Retailer	WSP
0159	Only one of civic address, delivery address, road address, or foreign address may be included	UCI	Retailer	WSP
0160	Post Office Box Field too long	UCI	Retailer	WSP
0161	Post Road Number Field too long	UCI	Retailer	WSP
0162	Post road number required	UCI	Retailer	WSP
0163	Invalid postal code format	UCI	Retailer	WSP
0164	Pre Road Number Field too long	UCI	Retailer	WSP
0165	Pre road number required	UCI	Retailer	WSP
0166	Invalid province / state code	UCI	Retailer	WSP
0167	Province / state code is required	UCI	Retailer	WSP
0168	Retail Postal Outlet Field too long	UCI	Retailer	WSP
0169	Invalid road type	UCI	Retailer	WSP
0170	Road type required	UCI	Retailer	WSP
0171	Rural Route Field too long	UCI	Retailer	WSP
0172	Site Number Field too long	UCI	Retailer	WSP
0173	Site number is only valid when used in combination with a rural route	UCI	Retailer	WSP
0174	Station Name Field too long	UCI	Retailer	WSP
0175	Invalid street direction code	UCI	Retailer	WSP
0176	Street Name Field too long	UCI	Retailer	WSP
0177	Street name required	UCI	Retailer	WSP
0178	Invalid street pre-direction code	UCI	Retailer	WSP
0179	Invalid street type code	UCI	Retailer	WSP
0180	Street type code required	UCI	Retailer	WSP
0181	Suburban Service Field too long	UCI	Retailer	WSP
0182	Invalid unit definer	UCI	Retailer	WSP
0183	Unit definer not allowed with unit number	UCI	Retailer	WSP
0184	Unit Number Field too long	UCI	Retailer	WSP
0185	Owner E-mail Address Field too long	UCI	Retailer	WSP
0186	Invalid fax number	UCI	Retailer	WSP
0187	Invalid mobile number	UCI	Retailer	WSP
0188	Invalid pager number	UCI	Retailer	WSP
0189	Invalid phone number	UCI	Retailer	WSP
0192	Site owner name is required	UCI	Retailer	WSP

UCI Transaction Status Codes - General Information

Status Code	Description	Transaction	Sender	Recipient
0053	C/O or Attention Field, Field too long	UCI	Retailer	WSP
0054	Invalid critical to have power indicator	UCI	Retailer	WSP
0055	Critical to have power reason is required	UCI	Retailer	WSP
0056	Invalid critical to have power reason	UCI	Retailer	WSP
0057	Invalid GST exemption indicator	UCI	Retailer	WSP
0058	Meter Access Notes Field too long	UCI	Retailer	WSP
0059	Invalid onsite generation indicator	UCI	Retailer	WSP
0060	Invalid SIC code	UCI	Retailer	WSP
0151	Alternate Contact Field too long	UCI	Retailer	WSP
0191	Retailer Reference Number Field too long	UCI	Retailer	WSP

Table A-1 MDM Reporting Metrics Template

The following template is an example used by the MDM for reporting purpose. This template is available on the ISO's web-site. MDM shall submit the metrics to the ISO in accordance with the timelines stated in section 12.2.

Company Name: XXX Company **MDM ID:** 2500
Report Prepared By: XXXX **Date:** 30-Jun-10
e-mail: xxx@yy.ca

MDM Reporting Metrics Template

Reporting Period: MONTHLY May-10

System Level					Site Level		
	Sum of energy reported	Total energy estimated			Sum of energy reported	Total energy estimated	
Daily	4.4856785	n/a			n/a	n/a	
Monthly	4.5642311	0.0074561			1.7445879	0.0355081	

Performance Metric	Standard	Code Reference	Accuracy	Meet Standard (Y/N)	Code Reference	Accuracy	Meet Standard (Y/N)
Daily Data Accuracy	2%	11.2.6.1 1)	1.72%	Y		n/a	n/a
Monthly Data Actual vs. Estimated	2%	11.2.6.1 3)	0.16%	Y	11.2.6.2 2)	2.04%	n/a

Reporting Period: FINAL Nov-09

System Level					Site Level		
	Sum of energy reported	Total energy estimated			Sum of energy reported	Total energy estimated	
Daily	2.9278321	n/a			n/a	n/a	
Monthly	3.0223456	0.1974561			1.7893621	0.0355081	
Final	3.0122378	0.0084512			1.8012345	0.0213229	

Performance Metric	Standard	Code Reference	Accuracy	Meet Standard (Y/N)	Code Reference	Accuracy	Meet Standard (Y/N)
Daily Data Accuracy	2%	11.2.6.1 1)	3.13%	N		n/a	n/a
Monthly Data Accuracy	2%	11.2.6.1 2)	0.34%	Y	11.2.6.2 1)	0.66%	Y
Monthly Data Actual vs. Estimated	2%	11.2.6.1 3)	6.53%	N	11.2.6.2 2)	1.98%	Y
Final Data Actual vs. Estimated	1%	11.2.6.1 4)	0.28%	Y	11.2.6.2 3)	1.18%	N

Notes:

- All energy MWh numbers should be displayed with 7 decimal places
- All Accuracy % should be displayed with 2 decimal places
- Meet Standard values are either Y or N (not blank)
- As per AUC Rule 021, section 12.2, this report shall be submitted to AESO via e-mail at compliance@aeso.ca by the last business day of each month.