

Ontario

Electronic Business Transactions (EBT) Standards Document

for Retail Settlement

in the Electric Retail Open Access Industry

January 10, 2005

Prepared by: The Ontario EBT Working Group

Version 3.0

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Ontario EBT Standards Change Log

Version 3.0

Revision Date	Version	Revised Section and Reason:
April 20, 2000	1.0	Initial Draft Version for comment
May 25, 2000	1.1	Final Draft Version for Comment
May 25, 2000	1.1	Supplement to Section 5.1 for comment
August 3, 2001	2.0	Re-release of May 25 th version with the Addendums included as appendices
December 21, 2001	2.1	Re-release of May 25 th version with Addendum #3
April 30, 2004	2.2	Incorporation of all changes arising from the resolution of issues up to and including V2.2 Patch 1. This includes Addendums 1, 2, 3 and 4, Bulletins 1, 2, 3 and 4, and Global Issues 642, 643, 650, 653, 654, 656, 657, 658, 673, 682, 683, 693, 700, 701, 710, 711, 712, 715, 725, 726, 734, 738, 747, 749, 751, 752, 753, 755. As well, the document has been revised to bring it up to date with events since the last revision.
October 25, 2004	2.2 Patch 1	Incorporate all changes from Working Group review of Version 2.2
January 10, 2005	3.0	Incorporation of all changes for Version 2.2 Patch 2, Version 2.2 Patch 3 and Version 3.0. This includes Global Issues 720, 737, 740, 741 754, and 766 for Version 2.2 Patch 2, Global Issue 774 for Version 2.2 Patch 3, and Global Issues 659, 661, 757, 758, 759, 764, and 765 for Version 3.0

1. Introduction

As part of the strategy to encourage participation in the open marketplace in Ontario, the Ontario Energy Board (OEB) has mandated in the Retail Settlement Code (RSC), dated February 28, 2000, the use of an Electronic Business Transaction (EBT) system. Transactions such as enrolments, requests for meter data, billing data, and payment history will be processed electronically via the Ontario EBT system. The implementation of several Hubs serves to expedite transactions between the various market participants in the open market.

1.1 Ontario Electronic Business Transaction (EBT) Clearinghouse Sub Team Background

To assist in expediting the use of EBT in Ontario, Toronto Hydro and Hydro One Networks Inc. formed a consortium which worked closely with the OEB for the purpose of developing detailed business processes and defining the electronic transactions necessary to support retail choice. An Advisory Committee was formed, consisting of a consortium of market players – Brantford Hydro, Direct Energy, Enlogix, Hydro Mississauga, Milton Hydro, Hydro One Networks Inc., Ottawa Hydro, Toronto Hydro, Union Gas, and Utilipro. An EBT Sub Team was then formed to establish the standards for the business rules, transaction sets, and protocols to be used in Ontario. The EBT Sub Team consisted of staff from some of the above companies, as well external expertise. The external team members consisted of ExtenSys, Excelergy, Systrends, and Ernst&Young. Their vast knowledge of deregulation and prior EBT experience was drawn upon. The EBT Advisory Committee reviewed the progress of the EBT Sub Team approximately every two weeks and provided feedback on progress to date. Both the Advisory Committee and the OEB received daily updates on project progress and assisted in clarifying the Code and in closing issues.

The EBT Sub Team formed five Working Groups. This allowed them to focus on each of the detailed transaction sets and to build the required process flows in order to adhere to what was mandated in the OEB RSC. These teams consisted of sub teams on: Infrastructure, Invoices, Meter Data, Remittance and Application Advice, and Service Transaction Requests (STRs). The focus of the Working Groups was to define the EBT standards and the business rules and to put in place the required transaction sets.

Guiding Principles

The EBT Sub Team worked with the following guiding principles. Transactions should be developed to:

- ✓ Facilitate Consumer choice and mobility in an open market.
- ✓ Lower the requirements for entry into the market for participants.
- ✓ Control costs and increase efficiency, speed, and accuracy.
- ✓ Minimize exception and manual processing.
- ✓ Focus on the use of electronic solutions rather than paper-based ones.

Amendments

These EBT standards have been developed by consensus, maintaining the objective of practical and operational results. Recognizing that the processes outlined in these standards were new to many stakeholders, the EBT Sub Team (now called the EBT Working Group) has worked with the OEB and all parties to resolve issues that have arisen during the implementation stage of these standards, and throughout the operation of the open market. The Working Group, under the auspices of the Advisory Committee and the OEB, has implemented a method of tracking issues with the EBT Standards and

their resolution. The resolution of these issues (referred to as Global Issues or GIs) has led to the publishing of new releases of the EBT Standards from time to time.

1.2 The Role of the Hubs

The Ontario EBT Standards specify protocols for communication of EBTs between market participants using EBT Hubs and also using direct Point to Point connections. In situations where Point to Point market participants wish to communicate with Hub subscriber market participants, a communications protocol is specified for Point to Hub communications.

A Hub acts as a centralized point of communication for Trading Partners in their endeavours to operate in the open marketplace beginning May 1, 2002. An important role of a Hub is to validate and acknowledge transactions that are error free and reject transactions with errors - according to approved standardized schemas.

In the case of multiple Hubs serving the Ontario marketplace, the Hubs will communicate among themselves to pass transactions between trading partners. In this way, any trading partner will only need to communicate with one Hub, even if the receiving trading partner is using a different Hub. Part of each Hub's functionality will be to direct the transactions to the correct trading partner using the Hub that the receiving trading partner is connected to. All Hubs serving the Ontario retail Electricity marketplace will be certified using a set of tests mutually agreed upon by the Hubs. This will ensure that the EBT Standards defined in this document are used throughout Ontario for all Market Participants connected to any Hub.

Initial Hub functionality provides simple mail boxing of EBTs. It provides a store-and-forward service for transactions as well as an archive and audit trail of all transactions. Each Hub also issues Functional Acknowledgements for all transactions in both the reject and accept states.

- ✓ The Hub verifies and validates that the Trading Partner is a licensed market participant, as defined by the OEB.
- ✓ The Hub verifies users against a trading partner directory.
- ✓ The Hub administration certifies all trading partners before they become Hub users.
- ✓ The Hub administration may provide testing and training for Hub users.
- ✓ Each Hub acts as a centralized repository for Schemas. All EBT Transactions for the Province of Ontario, as mandated in the RSC, flow through a Hub to Spoke, a Hub to Point or a Point to Point connection.
- ✓ The Hub rejects EBTs that do not adhere to the standardized transaction formats.
- ✓ The Hub ensures First-In-First-Out (FIFO) processing of all files by recording a date and time stamp.
- ✓ The Hub provides a transaction-level tracking system that acts as an audit trail for all transmissions that pass through that Hub.

- ✓ The Hub assumes that it is the responsibility of the originator of all files to place the transactions into the proper business order for processing.
- ✓ The Hub may provide manual entry of EBTs for small- to medium-sized market participants.
- ✓ The Hub *will not* allow End-Use Consumers to have access to the Hub. Consumer access to information will be provided via a Retailer or Distributor Web site.

Further levels of functionality will be evaluated and implemented as needed and justified. The functionality could include such things as limited CIS "awareness". It could enable STR responses at the Hub level by maintaining replicated Distributor databases. It could also be expanded to include the provision of an end-use Consumer database of meter data, history, and information. Such an advanced level would allow a Hub to automatically perform many of the functions of the Meter Data Management Agent and Meter Reading Service Provider.

1.3 Technology Introduction

The EBT Advisory Committee has decided to use eXtensible Markup Language (XML) as the technology to implement EBT. XML introduces a framework of standardized business-to-business electronic transactions that will improve the competitive landscape of the deregulated retail energy industry. Electronic business transactions amongst trading partners are complex, data-intensive communications that are usually costly to establish and maintain. By implementing an XML-based electronic business transaction standard for deregulation, the barrier of entry for Market Participants is lowered by providing a cost-efficient, reliable, and 'open' means of communication between Trading Partners. Some of the benefits of using XML include:

- ✓ XML's ease of development allows small- and medium-sized participants to maintain flexibility while interacting with a wide range of trading partners.
- ✓ XML creates a richer structural and semantic environment to express the many roles and relationships among Market Participants.
- ✓ XML's extensibility is key to fulfilling its promise of simplified standards. Ease of parsing and validation allows developers to quickly adapt to changes in the industry.
- ✓ XML is designed for use on the Internet, allowing Trading Partners to minimize their costs.
- ✓ XML is widely accepted across many industries.
- ✓ XML is readable and easily parsed by computers.
- ✓ XML is available in a wide variety of low-cost tools, such as Internet Explorer.

XML is a tag-based framework used primarily to organize data in a universally understood format. XML is a subset of the Standard Generalized Markup Language (SGML) and is similar to Hyper Text Markup Language (HTML). The use of XML facilitates the transmission of information from system to system, independent of platforms. XML was created to deliver structured, readable, usable information over the Internet platform. It is a generalized markup language that is platform-independent and

extremely flexible. XML can be used to specify the presentation of a document (font size, indentation, etc.) or to specify structure of the document through Document Type Definitions (DTDs) or schemas. XML is designed for Web usage and introduces a new class of documents that do not require a predefined document type. The benefit of XML is that it provides a standard that allows the capacity for processing information by non-proprietary software such as search engines, browsers, and parsers. As the interest in E-commerce and EDI over the Internet increases, XML is proving to be a leading factor in enabling business-to-business electronic commerce.

1.4 Glossary of Terms Used in This Document

(For a Glossary of Ontario Terms, see the Retail Settlement Code)

This glossary has been prepared solely for the convenience and assistance of readers by providing a narrative, non-technical description of some of the terms used in the sections of this document.

Authentication: The logon message is utilized to authenticate a user attempting to establish a connection to a remote system.

Blackout Period: A window or lead-time during which a Distributor may suspend processing of STRs until the next billing cycle.

Consumer: A residential, commercial, or industrial Consumer in the electricity marketplace who buys electric power for its own consumption and not for resale.

Contest Period: A 20-day period suspending the new enrolment given to the current Retailer to allow a challenge of the switch to a new Retailer.

Distributor: Any entity that owns and is responsible for the maintenance of local distribution network systems, which connect the bulk transmission grid to the end-use Consumer. In Ontario, the Distributors include the MEUs, Hydro One, and Great Lakes Power.

Document: Group of batched transactions, same as PIPE document.

Document Type Definitions (DTD): Content and element validation code used to support each document.

E-commerce: Business to business electronic transactions

Electronic Business Transaction (EBT) Clearinghouse: A computer-based transaction mechanism for transmitting common format data between market participants.

Electronic Data Interchange (EDI): Use of a standardized format to define electronic business transactions.

Encryption: The exchange of sensitive data across public carrier networks may make it advisable to employ data encryption techniques to mask the application messages. The choice of encryption method will be determined and standardized.

End-Use Consumer: see Consumer

Enrolment: The process of signing up a Consumer for competitive electricity supply.

Hub: A centralized computer system that enables the Trading Partners to connect and route EBT transactions.

Hyper Text Markup Language (HTML): The basic language of the Web, which tells Web browsers how to display elements such as text, headlines and graphics.

Independent Electricity Market Operator (IMO): The IMO is in charge of administering the wholesale marketplace. This entity is independent in that it has no commercial interest in market transactions.

Interval Metering: Metering capable of measuring and recording the amount of electricity quantities during a defined period, such as every five or 15 minutes.

kWh: Kilowatt-hour, a standard unit for measuring electricity. Consumers are charged in cents per kilowatt-hour. In 1996, the average residential Consumer in Ontario purchased 860 kWh per month.

kWh Metering: Metering capable of measuring the total usage or flow of kilowatt hours on a continuing basis, but not capable of recording and tracking such usage over shorter intervals, such as every hour or half-hour.

Load: An end-use device or Consumer that receives power from an electricity system.

Load Profile: An approximation of the amount of energy typically taken during each hour by a Consumer or class of Consumers over a defined period, such as monthly, given the total amount of energy metered for that defined period. Load profiles are needed for Consumers who do not have interval meters, and are used to allocate total kWh usage over the month to each hour, in order to perform settlements that are based on hourly prices.

Load transfer: A network supply point of one Distributor that is supplied through the distribution network of another Distributor and where this supply is not considered a wholesale supply point.

Losses: The energy that is consumed (lost) in the transmission and distribution of electricity from generation to load.

Long term load transfer (LTLT): An arrangement whereby the Consumer of one Distributor is provided service by a neighbouring Distributor. The provision of service by the neighbouring Distributor is transparent to the Consumer.

Market Participant: Any entity that is authorized by the market rules to produce, buy, sell, trade, or transmit products in the IMO-administered wholesale markets. The Ontario Energy Board will license all wholesale market participants in Ontario.

Meter Data Mart (MDM): The storage location for all IMO pricing and meter reading information, interval meter information and non-interval information.

Meters or Metering: Equipment that measures and registers the amount and direction of electrical quantities with respect to time.

Municipal Electric Utility (MEU): An organization that purchases power at wholesale from Ontario Power Generation and provides retail electric service to many Ontario cities, towns, and villages, and to certain townships adjacent to them.

Ontario Energy Board (OEB): As the regulator under the proposed market structure, the OEB establishes the conditions for licensing market participants and regulates rates for transmission and distribution.

Partner Interface Process (PIP): Transaction container for an individual utility trading partner, such as Enrol STR.

Partner Interface Process for Energy (PIPE): XML-based messaging protocol for the exchange of transactions among trading partners in the retail energy industry.

PIPE Document: Document container for a trading partner directory and one or more PIP transactions.

Power Flow: Power flow to a Retailer's new Consumer begins when the Distributor generates the first meter read. The date when power starts to flow is the "Power Flow Date" defined below.

Power Flow Date: The power flow date is the date that the Consumer begins receiving power from the new Retailer and is no longer on Standard Supply Service, or being supplied from a previous Retailer. Any charges and related costs for energy used by the Consumer on, and after, this date will be made through the new Retailer. Likewise, the new Retailer begins charging the Consumer for energy on, and after, this date.

Rescission Period: In Ontario this is a ten-day period following a Consumer's decision to contract with a Retailer to supply electricity. During this time the Consumer can change their decision. A Retailer must hold the Enrol STR until the Rescission Period is over.

Retail Market or Retail Access: A market in which electricity and other energy services are sold directly to Consumers by competing suppliers. Also known as Direct Access.

Retail Settlements Code (RSC): The code approved by the OEB and in effect at the relevant time, which, among other things, establishes a Distributor's obligations and responsibilities associated with financial settlement among Retailers and Consumers and provides for tracking and facilitating Consumer transfers among competitive Retailers.

Retailer: An entity that purchases electricity for the purpose of selling electricity to a Consumer or acting as agent or broker for a Consumer or another Retailer with respect to the sale of electricity.

Schemas: Content and element validation code used to support an XML transaction.

Settlement: The accounting and billing process whereby an entity such as the IMO determines the amounts that each market participant should pay or be paid to compensate for the energy and other services supplied or used, or bought and sold in the market.

Spot Market: A market in which goods are traded for immediate or near-immediate delivery. In the current Ontario market design, the IMO operates and administers settlements for a spot market in electricity, in which suppliers could submit bids to sell and purchasers submit offers to buy energy through an IMO-coordinated auction, with settlements based on market-clearing prices determined by the IMO. Market participants are free to use the spot market to sell/purchase energy at market-clearing prices, as needed.

Spot Market Prices: The market-clearing prices determined in a spot market and used as the basis for settlements for all purchases and sales in that spot market.

Standard Supply Service (SSS): Electricity service provided to the Consumer directly from the Distributor, which is not based on bilateral contracts.

Standardized General Markup Language (SGML): Highly complex vigorous language with tags for structure content.

Time-of-Use Meter: A meter capable of measuring and recording the amount of electricity used during a defined set period for which specific tariffs for electricity consumption are applicable, such as daytime peak, night time off-peak, winter, summer.

Trading Partner Directory: Defines all trading partners within the entire PIPE Document message.

Transaction: A message from one trading partner to another in a standardized format.

Transaction set: Multiple transactions of the same type e.g., STRs, meter data transactions.

Unbundling: Unbundling is used to describe the process whereby competing suppliers are allowed to provide one or more products or services, such as meter read services, electricity supply etc.

Usage: The actual consumption and demand (kWh, kW, kVA) used by the Consumer during a period as measured by the meter and with multipliers applied.

Wholesale Market: In this document, this refers to the market in which electricity and other energy services are sold to wholesalers/ Retailers/Distributors. These wholesalers/ Retailers/Distributors in turn sell to retail or end-use Consumers. A wholesaler/Retailer/Distributor of power would have the option to buy its power from a variety of generators, and the generators would be able to compete to sell their power to a variety of wholesalers/Retailers/Distributors.

eXtensible Markup Language (XML): A tag-based framework used primarily to organize data in a universally understood format; it facilitates the transmission of information from system to system independent of platform. XML was created to deliver structured content over the Internet.

eXtensible Style Language (XSL): The standard style sheet language for XML.

2. Summary

The remainder of this document is comprised of the following sections:

Section 3. Technology Overview. This section is a high-level discussion of the technology considerations for implementing EBT in Ontario.

Section 4. Business Relationships. This section summarizes the relationships between the Consumers, Retailers and the Distributors at the start of retail competition. It is intended to foster the development of a mutual understanding of those relationships. These relationships result from the Retail Settlement Code. A more thorough understanding will come from a reading of the Retail Settlement Code.

Section 5. Electronic Business Transactions. This section defines a set of electronic business transactions corresponding to the business relationships described in Section 4. It also includes a description of the business rules that govern the use of the transactions.

Appendices:

Appendix A: References. This appendix contains references for the Schemas and Implementation Guides that are part of these Standards. This appendix also contains references for other documents which are useful in using these standards such as the List of Mandatory Transactions, Reject Reasons and Status Codes, Retail Settlement Code, the XML Specifications and other documents.

Appendix B: Relationship Between Distribution Rate Handbook Services and EBTs. This appendix contains a table that relates chargeable services described in the Distribution Rate Handbook to the EBTs that trigger the described charges.

Appendix C: Sample Settlement Transaction Flows and ISD and IST Calculations. This appendix provides sample calculations for Invoice Settlement Detail and Invoice Settlement Total transactions as well as sample transaction flows for various settlement transaction scenarios.

3. Technology Overview

This section describes the technology considerations to implementing the EBT System beyond the choice of XML as an EBT format and translation standard as described in Section 1.3, Technology Introduction. Technology must also be employed to ensure the security, reliability, and data transport of EBTs to and from Trading Partners.

Public Key Infrastructure technology (PKI) was chosen as the key standard to adopt in ensuring EBT Internet security characteristics of Privacy, Authentication, Integrity, and Non-repudiation (“PAIN”). Specific technology standards followed are Secure Multipurpose Internet Mail Extensions (S/MIME) employing Triple Digital Encryption Standard (DES) for encryption and Secure Hash Algorithm (SHA) for Digital Signature.

EBT transport alternatives initially considered for the Ontario deregulated electricity market included:

- Private Electronic Data Interchange (EDI) Value Added Networks (VANs)
- Internet point-to-point
- Internet EBT Clearinghouse Hub

Due to cost considerations, Private EDI VANs were not considered to be acceptable.

Internet Point-to-Point transport necessitating of multiple connections requires significant logistic manual intervention and support in order to insure transactions are “pushed” to the appropriate Trading Partners in a timely manner. For example, Internet Point-to-Point transport for a Distributor with 20 Retailers as trading partners would require the Distributor to make 20 point-to-point connections in order to deliver all trading partner EBTs. Internet Point to Point is permitted in Ontario, and communications between Point users and Hub subscribers are handled by a Point to Hub transport protocol.

The Internet EBT Clearinghouse Hub, however, offers many of the advantages of the Private EDI VAN without the burden of point-to-point connectivity. Store-and-forward of EBTs between Trading Partners is achieved through the use of low cost “mail boxing” on a Hub’s centralized transaction repository. Security is achieved through web session encryption of Secure Sockets Layer (SSL) and transaction file S/MIME encryption and digital signature.

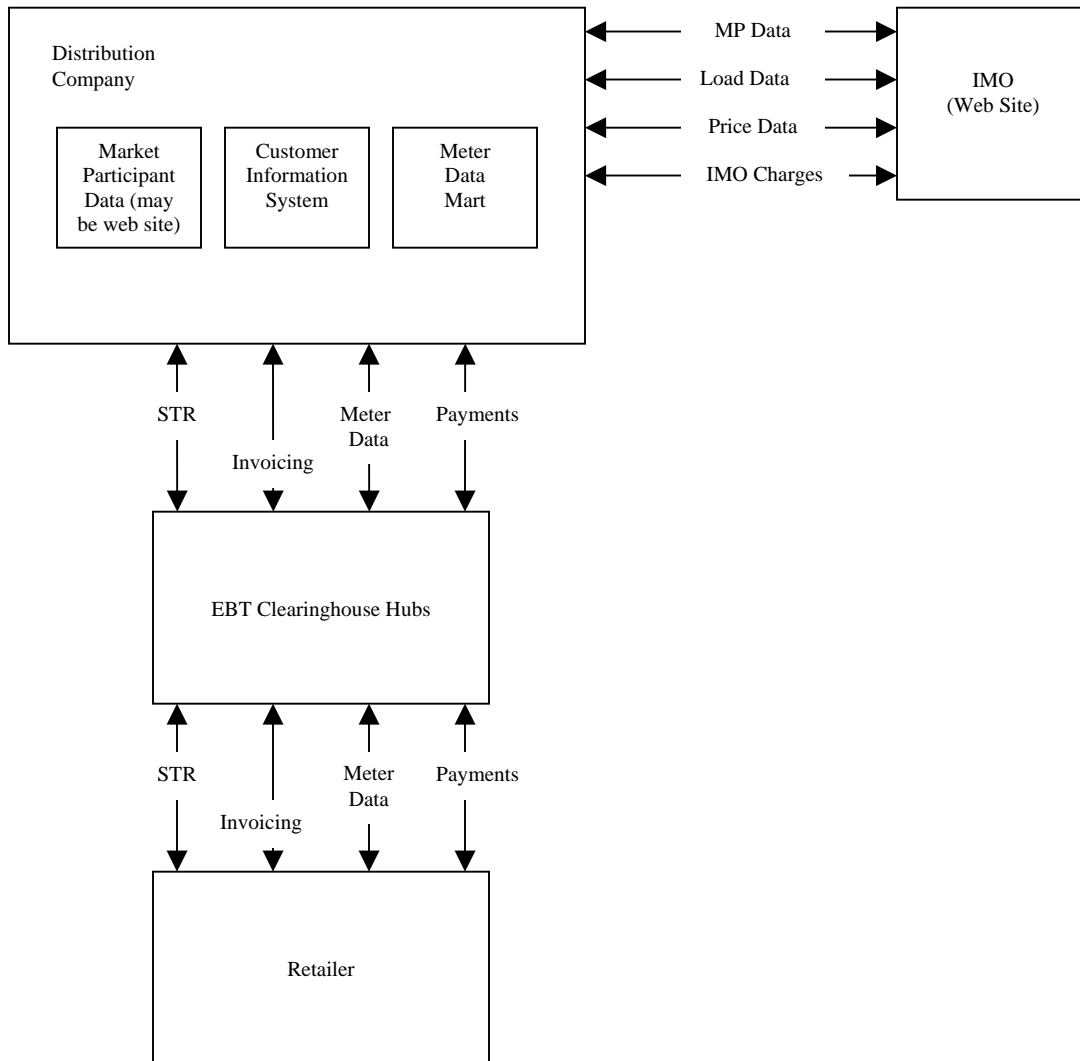
For more information on the standards to be used for transport of EBTs in Ontario, see the following additional EBT Standards:

- Ontario EBT Data Transport Protocol (Spoke to Hub);
- Ontario EBT Hub to Hub Protocol;
- Ontario EBT Protocol Between Hubs and Points; and
- Ontario EBT Point to Point Protocol (not yet published).

4. Business Relationships

The business relationships described in this document are intended to serve as a general guide for establishing standards for exchanging information. The overview below depicts the high-level flow of information in Ontario's retail open access marketplace for electricity supply.

Overview of EBT Clearinghouse Hubs



To establish a set of mutually agreed upon standards, Market Participants must first have a mutual understanding of the business relationships to which the standards will be applied in accordance with the OEB's Rules. The following represents the current understanding of these responsibilities and relationships.

Consumer:

1. Provides appropriate authorization to a Retailer for release of historical consumption and payment history information from the Distributor to that Retailer.
2. Selects one Retailer for enrolment per Distributor account.
3. Provides the applicable Distributor account identification to the Retailer.
4. Provides the appropriate authorization for the Retailer to enrol the Consumer.
5. Selects a billing option per Distributor account from Retailer, if offered or applicable.
6. Notifies Retailer to drop from Retailer to Standard Supply Service (SSS); alternatively may contact Distributor to drop to SSS but may incur charge with this option if off-cycle.
7. Notifies Distributor or Retailer of a move, initiation, or disconnect of Distributor service.

Retailer:

1. Obtains licence from the Ontario Energy Board.
2. Enters into a service agreement with each Distributor in whose territory it will operate.
3. Obtains the appropriate authorization from the Consumer for historical consumption information and payment history information to be released by the Distributor to the Retailer.
4. Obtains the appropriate authorization from the Consumer for Enrol STR.
5. Obtains the required information from the Consumer to enrol the Consumer on the Distributor's records.
6. Submits Enrol STR after the 10-day Consumer rescission period has passed. There is one enrolment per Distributor account and one billing option per Distributor account.
7. Sends the applicable information via EBTs to the Distributor for Consumer enrolment, changes, or termination of service.
8. Provides the Distributor with billing options and pricing information for the Distributor Consolidated billing option or renders its own bills to the Consumer for generation service.
9. Maintains its own set of records to reconcile information from the Distributor related to Consumer information and accounts receivable.
10. Completes required training and electronic systems testing of its EBT solution prior to Consumer enrolment.

11. Identifies both a business and a technical contact to facilitate inter-business communications.
12. Contacts each Distributor for company-specific information, such as rate structures.
13. Processes transactions according to EBT standards, including use of a functional acknowledgement.
14. Responsible for collecting own arrears from the Consumer on Split Billing.
15. Requests Meter Information along with the initial request for historical Usage data as separate STRs.
16. Agrees to handle unmetered service changes by mutual agreement with the Distributor and not by the EBT system.

Distributor:

1. Provides the Consumer's historical usage information and other payment history to the authorized Retailer upon request.
2. Schedules cycle meter-read dates and reads meters.
3. Schedules and completes off-cycle (special) meter reads under terms of service agreement with Retailer.
4. Renders bills to the Consumer as required by Consumer/Retailer relationship.
5. Maintains records of required data related to the current and active Consumer/Retailer services.
6. Provides the Retailer with invoice meter data information required by the agreed upon billing option.
7. Identifies both a business and a technical contact to facilitate inter-business communications.
8. Makes available to the Retailer and Consumer data, including but not limited to meter data, standards documents, meter read schedules, etc.
9. Is the sole party who can terminate (i.e. physically disconnect) electric service to the Consumer.
10. Processes EBT transactions and updates Consumer account information according to EBT standards, including use of Functional Acknowledgements on all transactions.

Items Outside the EBT System of Interest to EBT Market Participants:

Several items that are outside the EBT system, but related to it that are of interest to the Market Participants using the EBT system are included or referenced in this EBT Standard for convenience. The following items are included or referenced in appendices to this document:

- The relationship between prescribed fees for EBT related services described in the OEB's Distribution Rate Handbook and specific EBTs is documented in Appendix B.
- A reference to the Business Protection Plan Rebate (BPPR) file exchange process and formats can be found in Appendix A. The BPPR was previously known as the Market Power Mitigation Agreement (MPMA).
- A reference to a process that can be used for retroactive settlement reconciliation for the first 15 months of market operation can be found in Appendix A.

5. Electronic Business Transactions

This section describes the EBT Standards, business process flows and business rules. The following table lists the EBTs, their associated flows and section reference numbers. Appendix A contains a reference to the list of mandatory and optional transactions for the Ontario Retail Electricity Market.

Transaction Set	Flows	Section
Service Transaction Requests (STR)		
Enrol Request, Reject, Accept	STR-1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	5.1.1
Consumer Information Request, Reject, Accept	STR-1, 2	5.1.2
Historical Usage	STR-14	5.1.2
Payment History	STR-15	5.1.2
Meter Change Request, Reject, Accept	STR-16, 17	5.1.3
Consumer Information Change Request, Reject, Accept	STR-18, 19	5.1.4
Change Consumer Location Request, Reject, Accept	STR-20, 21, 22, 23, 24, 25	5.1.5
Drop Request, Reject, Accept	STR-26, 27, 28	5.1.6
Meter Data Transaction (MDT)		
Usage	MDT-1	5.2.1
Meter Maintenance	MDT-2, 3, 4, 5	5.2.2
Historical Usage Accept	MDT- 6, 7	5.2.3
Invoice Transaction (INV)		
Split Billing	INV-1	5.3.1
Distributor Consolidated - Bill Ready	INV-2	5.3.2
Distributor Consolidated - Rate Ready	INV-3	5.3.3
Retailer Consolidated - Bill Ready	INV-4	5.3.4
Retailer Consolidated - Rate Ready	INV-5	5.3.5
Settlement Invoice - Retailer Consolidated Bill Ready	INV-6	5.3.6
Settlement Invoice - Retailer Consolidated Rate Ready	INV-7	5.3.6
Settlement Invoice - Distributor Consolidated Bill Ready	INV-8	5.3.6
Settlement Invoice - Distributor Consolidated Rate Ready	INV-9	5.3.6
Settlement Invoice - Split Billing	INV-10	5.3.6
Market Participant Invoice	INV-11	5.3.7

Transaction Set	Flows	Section
Remittance (PA)		
Settlement Remittance	PA-1	5.4.1
Market Participant Remittance	PA-2	5.4.2
Net System Load Shape Daily (NSLS)		
Net System Load Shape Daily	none	5.5
CSV Transport (CSV)		
CSV Transport	CSV-1	5.6
Application Advice (AA)		
Application Advice Accept	AA-1, 2	5.7
Status Advice (SA)		
Status Advice	Various Flows	5.8
Functional Acknowledgements (FA)		
Functional Acknowledgements	FA-1, 2	5.9

Business Rules for All Transaction Sets

Below are the business rules that correspond to every electronic transaction.

- All trading partners, as well as the Hubs, generate a Functional Acknowledgement upon receipt of every PIPE document.
- All EBTs contain the basic information identifying the sender and receiver by their respective OEB License numbers (a reference to the list of OEB license numbers can be found in Appendix A).
- All transactions must be given a unique transaction number assigned by the originator.
- All transactions must be date/time stamped upon creation by the originator of the transaction.
- In certain circumstances, the Distribution Rate Handbook allows for the recovery of EBT processing costs from Retailers by Distributors. The relationship between the services listed in the Distribution Rate Handbook and specific EBTs is documented for convenience in Appendix B.

Technical Rules for All Transaction Sets

Below are technical rules that apply to every electronic transaction:

- Transactions should be collected together into PIPE documents for transmission between hubs, spokes and points. Large numbers of very small documents and single documents containing very large numbers of transactions create processing and efficiency problems for the Hubs and market participants. It is intended that market participants pack as many transactions as possible, up to a reasonable limit, into a single document before sending the document on to its intended recipient. To that end, there is a set quantifiable lower limit to the number of transactions that can be packed into a document. If a trading partner sends over 100 PIPE documents per day to a given recipient, the mean daily average number of PIP transactions per PIPE document must be greater than ten transactions per document. There are no limitations on trading partners sending less than this threshold per day.
- The plaintext EBT document must not be larger than 500Mb prior to encryption and compression.
- It is a requirement that participants entering the Ontario Electricity Market as of October 1, 2003 are required to use a document reference number such that the sender of the document is uniquely identifiable. One possible method that could be used to achieve this requirement is to include the market participant's OEB License Number (which is unique to that market participant) in the document reference number.
- In situations where an element is optional and the trading partner does not have any data for the field, the trading partner should not include the element and pass an empty field or load the field with fill characters (e.g., blanks) in order to pass

XML validation. In an optional field, if there is no data to convey the optional field must be absent from the transaction

- The time zone within dates is represented as a two-byte abbreviation. Within the EBT Standards, only Eastern Standard Time is to be used. The abbreviation for the Eastern Standard Time zone is:

ES = Eastern Standard Time (EST)

- Note that the definition for time within the XML schema definition language defines midnight as 00:00:00.
- Any telephone numbers presented in EBTs must be fully formatted including any standard punctuation. For example, North American telephone numbers should be presented in the following way for numbers without extensions: 999-999-9999. Or in the following way if the telephone number includes an extension (the extension number may be of variable length): 999-999-9999x99999.
- Any postal codes presented in EBTs must be fully formatted including any standard punctuation. Canadian postal codes must be seven characters long with a space in the middle of the code and the letters must be presented as upper case as per the Canadian Postal Code Standard. U.S. zip codes must be either five or ten characters long, and those that are ten characters long must have a hyphen after the fifth digit.
 - Canadian postal code example:
 - “A9A 9A9”
 - U.S. zip code examples:
 - “99999”
 - “99999-9999”

EBT Life Cycle Example

This section describes a simple scenario for EBT transaction processing between a Distributor and a Retailer, from the Distributor’s perspective. The billing option used in this scenario is Distributor Bill-Ready Consolidated Billing.

Initiating the Enrolment

A Consumer who wishes to change his or her electricity supplier from the Distributor to a Retailer contacts the Retailer to initiate this process. It is assumed in this scenario that the Distributor and Retailer are licensed market participants. According to the published Retail Settlement Code (RSC), the Retailer sends an Enrol Service Transaction Request (STR) to the Distributor to initiate the process.

Hub Processing

If the EBT is sent through a Hub, when the Hub receives the Enrol STR from the Retailer, the Hub validates the required data fields and their data type, according to the schemas (see a reference to the Schemas in Appendix A of this document). The Hub also

verifies and validates that the Retailer is a licensed market participant and Trading Partner with the Distributor. A Functional Acknowledgement (FA) transaction is the result of both of these processes. The FA reports that the Retailer's Enrol STR is syntactically correct by indicating either "acceptance" or "rejection". An FA is the response for all non-FA transactions sent between Trading Partners.

If the Enrol STR is in error, the Hub sends the "reject" FA to the Retailer, who must then correct the Enrol STR and send the new corrected version to the Hub. When the Hub receives a valid Enrol STR from the Retailer, it assigns an internal "receipt" date and time stamp to the transaction. The Hub forwards the verified and validated transactions to the Distributor in the order in which they were accepted from the Retailer. The Hub also "archives" the transaction for auditing purposes and file recovery.

Distributor Processing

When the Distributor receives the Enrol STR, the Distributor validates it based on the application and business rules. The Distributor then sends an "accept" or "reject" STR response to the Retailer. The Retailer can also request Historical Payment or Historical Usage information for an account; however, these requests must be submitted as separate STRs from the Enrol STR. In the case of the Historical Usage Request STR, a request for Meter Information must also be submitted. There are several possible responses, depending on the specific information requested. The Distributor sends a Historical Payment Transaction, a Historical Usage Accept Transaction (MDT) response and a Meter Maintenance Transaction (MDT) response, or "reject" STR response. The Retailer can also submit a Meter Information request STR independent of Historical Usage Request STR. When the Retailer receives responses to any of the STRs, the Retailer validates the data and sends an Application Advice (AA), indicating "acceptance" or "rejection" of the data, to the Distributor.

After enrolment, at the next scheduled meter read date for the account, the Distributor reads the Consumer's meter and sends the Usage Transaction containing the usage for the meter to the Retailer. In the event that the Distributor cannot read the meter, the Distributor sends a Status Advice (SA) to the Retailer indicating the new enrolment effective date and the reason for the delay. When the Retailer receives the Usage Transaction, the Retailer validates the data and sends an Application Advice (AA), indicating "acceptance" or "rejection" of the data, to the Distributor. If the Retailer rejects the Usage Transaction at the data level, the Distributor corrects and resends the new corrected version to the Retailer.

At the next meter read date for the Consumer's account, the Distributor reads the meter and sends the billing usage information to the Retailer, as a Usage MDT, according to the new billing cycle for the Consumer's account.

Billing Period Processing

At the end of the account's billing period, the Retailer sends its portion of the Consumer's bill to the Distributor as a bill-ready Invoice (INV). When the Distributor receives the Retailer's bill-ready line items for its portion of the invoice, the Distributor

validates the data and sends an AA, indicating “acceptance” or “rejection” of the data, to the Retailer. When the Distributor receives a valid invoice from the Retailer, the Distributor forwards a Payment Advice (PA) to the Retailer. This completes the billing process for the Consumer’s account.

5.1 Service Transaction Requests

Introduction

A Service Transaction Request is defined in the Retail Settlement Code as, “A mechanism that initiates a change from current service provision to alternative service provision.” Service Transaction Requests have many purposes including the request for enrolment, Consumer historical information, a meter change out, a change of Consumer information, change of Consumer location, and a drop to Standard Supply Service (SSS).

Validation of STRs

Per the Retail Settlement Code (RSC), the Distributor must perform a rigorous validation matching several criteria for each STR. These criteria are:

- The Distributor’s Consumer account number, which is to be presented in the XML Account Validator field fully formatted as it is presented on the part of the bill retained by the Consumer and as it appears in a field labelled "Account Number". The format should match the case, special characters, leading zeros and check-digits of those on the bill.

Plus one of the following two criteria:

- The Consumer’s name as it appears printed on the bill within the customer full name field, using the first four alpha-numeric print characters, uppercase only, (i.e., A-Z and 0-9) left to right with all other characters and blanks excluded. The name validator includes any salutations or initials presented on the bill with the name. The intention is that there is no contextual decoding of the name on the bill required in order to obtain a name validator. For example, the name validator for 'Ms. J. Smith' would be 'MSJS', the name validator for 'Mrs. J. Smith' would be 'MRSJ' and the name validator for 'I. Hu' would be 'IHU'. or
- The Consumer’s address defined as the postal code of the mailing address which is to be presented in the XML Address Validator field fully formatted including any standard punctuation. For example, the address validator for a Canadian address would look like “A9A 9A9” and the address validator for a U.S. address would look like “99999”, or “99999-9999”.

Even though a good validation only requires the Account Validator, plus one of the other two validators to be correctly matched, before a Consumer is enrolled it is mandatory for the Retailer to present all three criteria in an attempt to uniquely identify the Consumer. After the Consumer is enrolled it is deemed that the Consumer has been uniquely identified and only the account validator is mandatory. The other two validators are optional in subsequent STRs. If present however, they must correctly validate according to the rules defined above.

During account number validation, a trading partner should initially check the validation account number. If the Retailer does not recognise the value in the account number validator field, it should assume that the account number has changed and attempt to look

into the message for a previous account number of the Distributor and use that account number for its validation. If the account number has changed and the Distributor does not recognise the value in the account number validator field as a current account number, it should attempt to recognise this value as a previous account number.

STR Responses

Each Request transaction has an Accept transaction and a Reject transaction. STRs are the only EBTs that are designed this way. All other transactions such as Meter Data, Invoice, and Payments are accepted or rejected with a transaction called the Application Advice detailed in another section.

All Service Transaction Requests must be responded to within five business days of receipt of the request. The response may be an “accept” transaction or a “reject” transaction. See Appendix A for a reference to the list of reject reason codes used in STR processing.

STR Lead Time for Processing - Blackout Period

The Distributor may require some lead-time to schedule and conduct field and business activities required to complete an STR. Distributors may establish a blackout period which provides for a minimum lead-time, up to twenty business days, required for completing STRs including Consumer enrolment from SSS, Consumer enrolment from another Retailer, Consumer drop, or Consumer billing option change. Where a contest period is required, the lead-time would commence upon resolution of the contest. Where there is no contest period, the lead-time would commence upon acceptance of the STR by the Distributor. When a request for next scheduled meter read is within the blackout period, it will be processed on the first scheduled meter read after the blackout period.

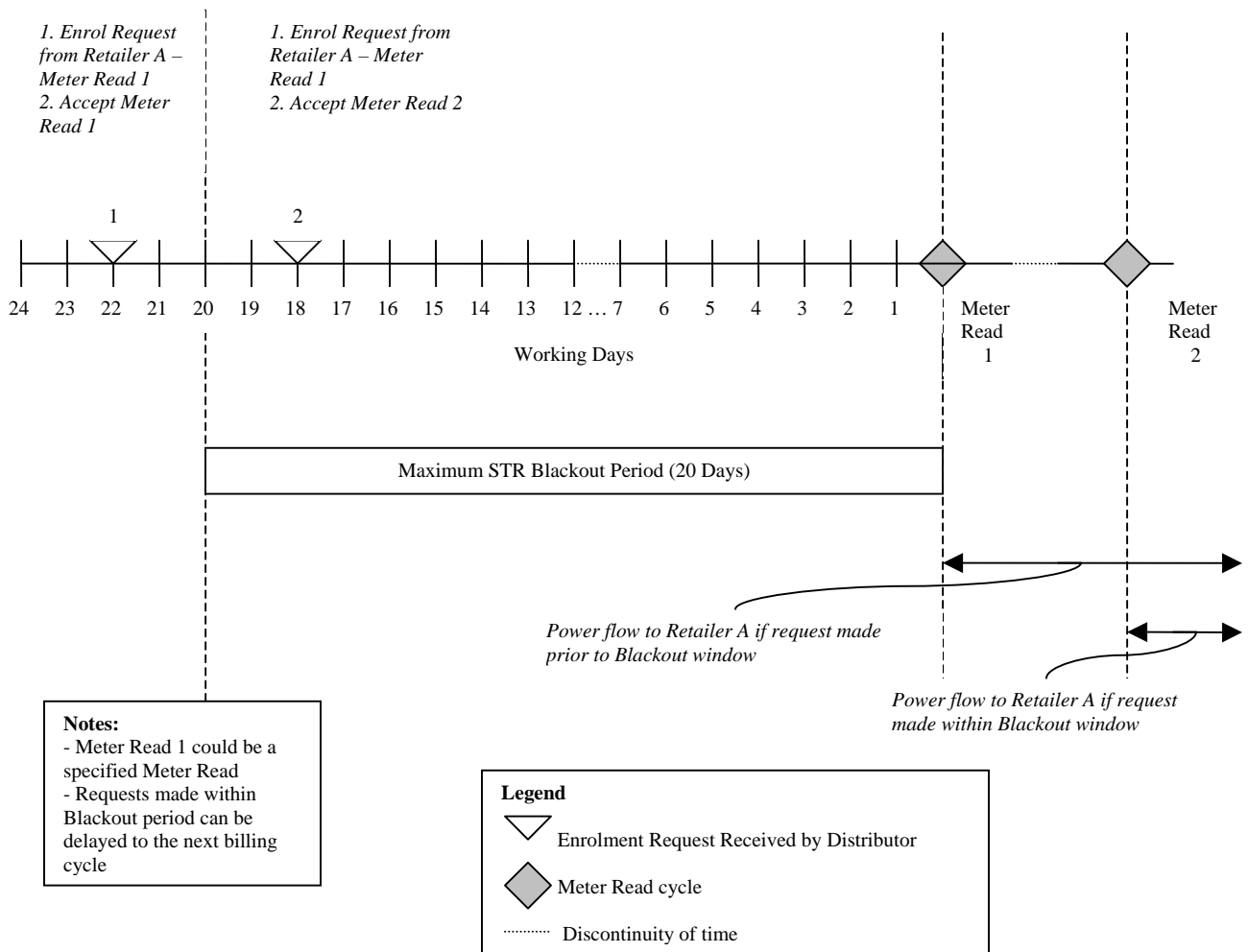
Special meter requests will be accommodated as provided for in the Retail Settlement Code (RSC), but are not committed to being performed within the lead-time period. Meter option change requests may require greater lead-time to complete due to site-specific circumstances.

The two timelines on the following pages show multiple STR scenarios involving Distributor’s Blackout Periods. Note that an STR that involves a holding or contest period, such as a pending switch or a drop to SSS requested by the Consumer, may not contain a specified meter date less than 10 days out.

Timeline 1: Standard Supply to Retailer (Basic Enrolment) – Two Scenarios

1. Retailer A submits an Enrol Request requesting an Effective Date of Meter Read 1 (Special Read, Next Read, or Future Read). In this scenario Retailer A submits the Enrol Request 22 days in advance of the requested Meter Read date that is well before the Blackout period. In this scenario, the Distributor will send back an Enrol Accept Response confirming Meter Read 1. Power would flow to the Consumer from the effective date of the switch, which is Meter Read 1.
2. If the Distributor receives an Enrol Request from Retailer A requesting Meter Read 1, within the Blackout period, the Distributor will send back an Enrol Accept Response with a New Effective Date of Meter Read 2. Power would flow to the Consumer from the effective date of the switch, which is Meter Read 2.

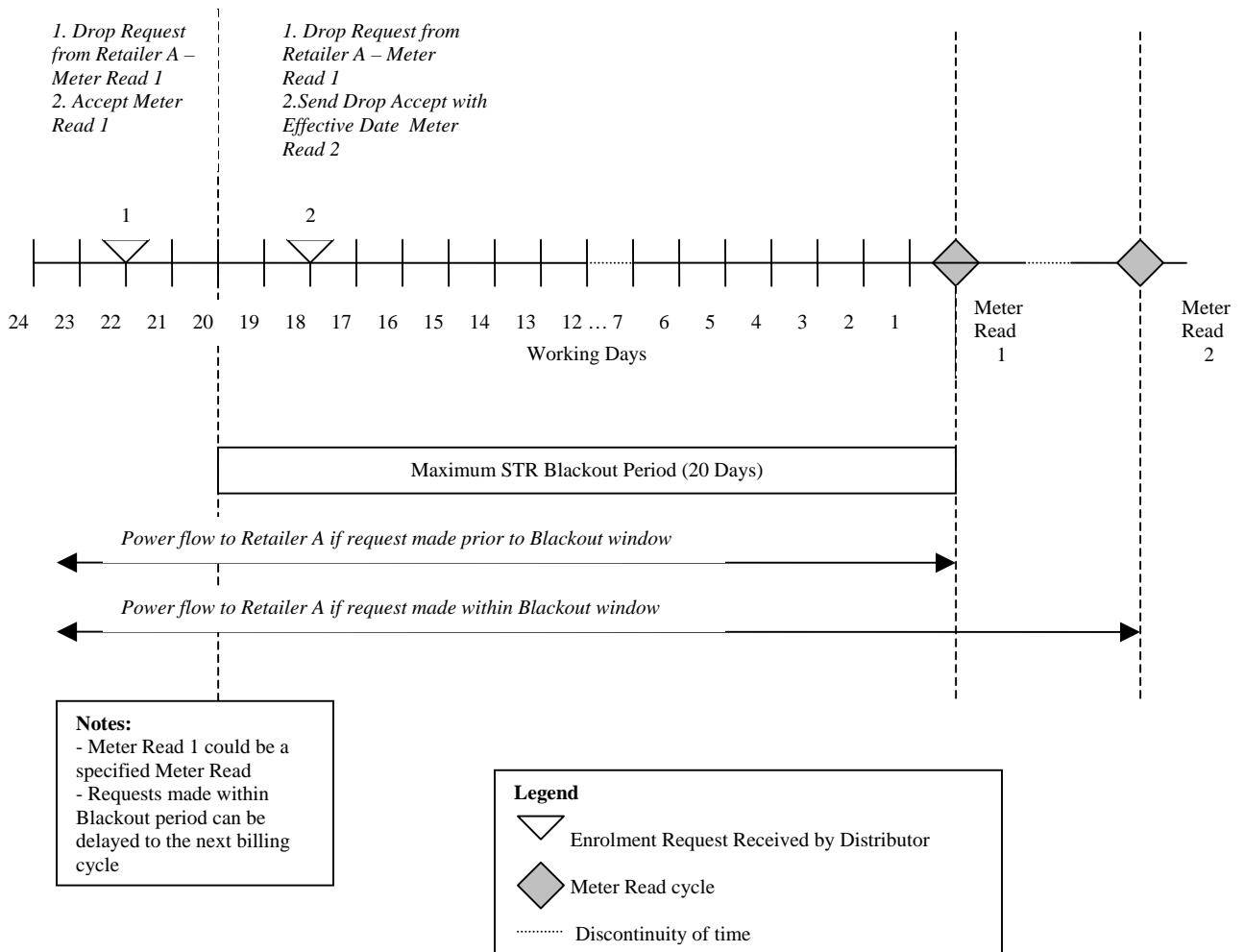
Standard Supply to Retailer (Basic Enrolment)
Service Transaction Request Period Time



Timeline 2: Drop to Standard Supply – Consumer Initiated – Two Scenarios

1. Retailer A submits a Drop Request requesting an Effective Date of Meter Read 1. In this scenario Retailer A submits the Drop Request 22 days in advance of the requested Meter Read date that is well before the Blackout period. In this scenario, the Distributor will send back a Drop response confirming Meter Read 1. Power will stop flowing to the Retailer effective Meter Read 1; a final bill will be issued to the Retailer.
2. If the Distributor receives a Drop Request from Retailer A within the Blackout period, the Distributor will send back a Drop Accept Response with a New Effective Date of Meter Read 2. Power would stop flowing to the Retailer effective Meter Read 2; a final bill will be issued to the Retailer.

Drop to Standard Supply – Consumer Initiated
Service Transaction Request Period Time



The following section describes each of the types of STRs. Process flows are provided for multiple scenarios of enrol, change, and drop STRs.

5.1.1 STR – Enrol

Definition/purpose

The Enrol STR signs up the Consumer for competitive electricity and other services supplied by a Retailer.

Flow

After the Consumer has signed a contract with the Retailer and the ten-day rescission period is over, the Retailer sends the Distributor an Enrol Request. Enrolments for contracts signed after December 9, 2002 may also require the Retailer, under certain conditions, to send a CSV (comma separated value) file to the Distributor outside the EBT system. Details of this requirement can be found later in this section.

General Description of Data

The information sent in the Enrol Request includes the three validation fields described previously in this section, the billing option (Distributor Consolidated, Retailer Consolidated or Split Billing), and the read indicator that determines how the first meter read will be obtained to begin power flow from the Retailer. The Enrol Request may ask for the effective date to coincide with the Consumer's next scheduled meter-read date, the latest historical read, a specified meter reading, a meter change out, or a future meter cycle. The reading must be an actual meter read. An estimated reading may be used only with written consent from all parties.

The form of initial read that will be used during an enrolment will be determined by examining the successful enrolment request after any Retailer contest has been resolved. The blackout period and contest rules are independent of any initial meter read options being requested by the Retailers.

Response

The Distributor confirms the successful enrolment with the Enrol Accept. A successful Enrol Request matches the validation terms and contains all the necessary information regarding billing options and read indicators for the Distributor to process the request. Refer to Validation of STRs in the introduction to the STR section. The Enrol Accept file contains a complete Consumer record including billing address information and service address information. Accept transactions go back to the originator with correct information. This includes both the account number and the account validator when an account number has changed. If the account number has changed, the accept response must also include the old account number in the old account number attribute.

The Enrol Reject transaction informs the Retailer that the Enrolment was rejected, provides the reasons for the reject, and echoes back the Retailer's request data (i.e. mirrors, or echoes back what was sent in the request transaction). Possible reject reasons can be found using the reference in Appendix A.

The accept or reject response must be sent within five business days of the receipt of the request.

Rules

The general rule for an STR is that there can be only one request for enrolment for one Distributor account, and one billing option per Distributor account. There are two basic types of STR Enrol transactions. They are the Standard Supply Service to Retailer and the Retailer to Retailer Switch. Some of the possible scenarios are described below.

Standard Supply Service to Retailer Enrol

In this scenario the Consumer is on Standard Supply Service when the Retailer sends an Enrol Request to the Distributor. If no other enrolment is submitted during the enrolment processing lead-time, the Retailer starts providing power to that Consumer on the next meter read date.

Retailer to Retailer Switch

In this scenario there is already a Retailer (Retailer A) providing power for the Consumer at the time that another Retailer (Retailer B) sends an Enrol Request for the same Consumer. If the STR is well formatted, contains all required data and can be processed, the Distributor must process the Enrol Request STR and send an Enrol Accept along with a notification called a “Status Advice” back to Retailer B. Retailer A also receives a copy of the “Status Advice” as well. This advice notifies the Retailers that there is a pending switch by a status code of “Notice of Pending Switch”.

It is foreseeable that there may be cases where the Consumer selects more than two Retailers and that those Retailers will attempt to enrol the same Consumer. The first enrolment received will be processed through to the Enrol Accept. The Distributor will reject the second enrolment request, and any subsequent enrolment requests, by returning an Enrolment Reject notifying the Retailer that there is already a pending enrolment on the account. In this manner, only one enrolment may be pending at one time.

Power Flow Date

The power flow date is the date that the Consumer begins receiving power from the new Retailer and is no longer on Standard Supply Service, or a previous Retailer. Any charges and related costs for energy used by the Consumer on, and after, this date will be made through the new Retailer. Likewise, the new Retailer begins charging the Consumer for energy on, and after, this date. The power flow date is communicated to a Retailer by returning it in the effective date field as part of the enrolment response accept transaction to the new Retailer.

Before the power flow date, the enrolment must be cancelled via a Status Advice transaction of type 'Terminate Transfer Request'. After the power flow date, the enrolment must be cancelled via a Drop transaction. If the Distributor must change the power flow date previously sent to a Retailer for whatever reason, it must send a Status

Advice transaction of type 'New Effective Date' where the effective date within this transaction is the newly scheduled power flow date.

Contracts Signed After December 9, 2002

Retailers shall identify accounts that were signed Post December 9th, 2002 by reporting to the Distributor in a CSV (comma separated value) file format, known as a “Post December 9th CSV file”, not part of the EBT system. The purpose of this file is to provide an audit trail of post December 9th, 2002 enrolments between Retailers and Distributors as well as to ensure that the Consumers are billed correctly. The CSV file will contain only the accounts that are to be billed the amount described in the Retailer’s IBRs (InvoiceBillReady EBT), as opposed to the accounts to be billed at the statutory rate of 4.3¢/kWh (or other rate as set from time to time).

The file type is comma-delimited, one account of a given type (described below) per line. This file will be sent by the Retailer to the respective Distributor no later than five business days after receipt of the Enrol Accept transaction. This file will contain the accounts for which Enrol Accept transactions were received since the last Post December 9th CSV file was sent. For renewals, since there is no EBT transaction required to renew an account, the file will contain renewal accounts to be billed at the IBR amount on the next billing cycle. Retailers shall report only those changes that have not been reported on any previous Post December 9th CSV file. Distributors may reject the submitted files if they do not meet the specifications described below. However, the Distributors are responsible and obligated to fix any resulting billing errors due to timing issues with properly formed files.

Distributors shall set up the account as indicated for its next billing cycle. Each file must contain only accounts that have already had an enrolment transaction sent to the Distributor and accepted. As a reminder, enrolments must still be requested and accepted/rejected via the EBT system. Distributors must respond to each Retailer’s technical contact via email with a positive acknowledgement of receipt of a properly formed file.

The file will contain accounts that are new enrolments and renewals. The difference will be reported in the “Type” field, containing either “Enrol” or “Renew”.

The mandatory columns in each row are:

- Account Validator (per EBT formatting standards)
- Name Validator (per EBT formatting standards)
- Address Validator (per EBT formatting standards)
- Type (either “Enrol” or “Renew”)
- Contract Sign Date (YYYYMMDD) – for new accounts it is the date the Consumer signed the contract, for renewal accounts, it is the contract re-sign date. In neither case does it have anything to do with the flow date.

For example: Retailer A decides to start selling contracts again. Retailer A will then have to send a Post December 9th CSV file no later than five business days after receipt of an Enrolment Accept transaction for accounts enrolled or renewed after December 9th, 2002.

The file naming convention will be as follows:

GI726_from_{Retailer license #}_to_{LDC license #}_{YYYYMMDDhhmm}.csv

Notes:

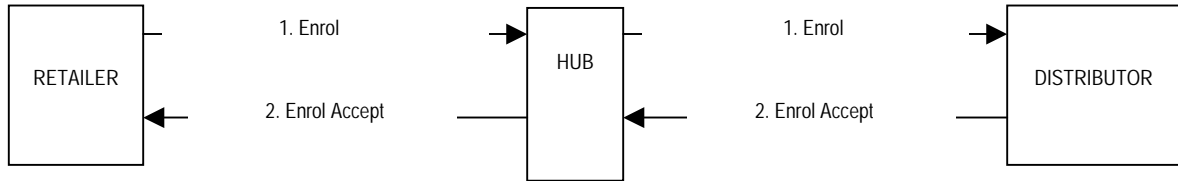
1. The date element in the file naming convention represents the approximate date and time of this file's transmission.
2. A CSV file is an ASCII file, not an MS Excel Spreadsheet.
3. It is the responsibility of the sender of CSV files to ensure that the exchange of confidential information is secure. It is at the discretion of the sender to decide how much (within reason) or little security it desires to implement. Generally, CSV data sent on physical media and couriered to the respective party is considered secure. Both parties shall ensure that all physical media containing CSV data shall be dealt with in an appropriate manner in order to protect the privacy of Consumers.

Legend for Transaction Flows

1. Dotted lines indicate communication outside the EBT System.
2. Retailer A is the current or old Retailer and Retailer B is the new Retailer.
3. SA is an abbreviation for Status Advice in some flows.
4. The purpose or message of the Status Advice is abbreviated on the flows as follows:
 - a. NED - New Effective Date
 - b. CPO - Contest Period Over
 - c. TXReq – Terminate Transfer Request
 - d. NPS – Notice of Pending Switch
 - e. CCL – Consumer Change Location
 - f. OTx – Original Transaction Number

TRANSACTION FLOW STR-1: SSS to Retailer Enrol STR - Accept

This is an Enrol STR with valid, complete information. The Consumer is on Standard Supply Service. The STR is accepted.



Flow:

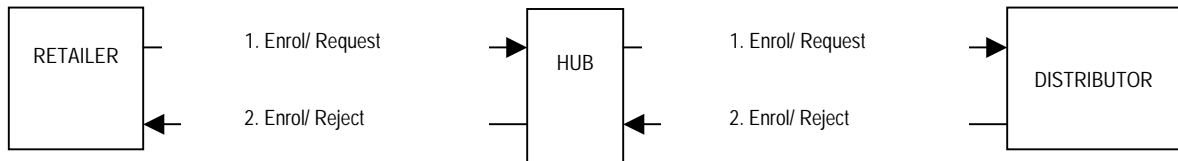
1. Retailer submits a valid Enrol request.
2. Distributor sends the Enrol Accept within 5 business days.

Exceptions: None

Roles and Responsibilities: None

TRANSACTION FLOW STR-2: SSS to Retailer Enrol STR - Reject

This is an Enrol STR. The Consumer is on Standard Supply Service. The STR is not valid and is rejected.



Flow:

1. Retailer submits an Enrol Request with an incorrect Consumer name.
2. Distributor responds within 5 business days of receipt and sends an Enrol Reject with a reason code "Invalid Customer Name"

3. Rules:

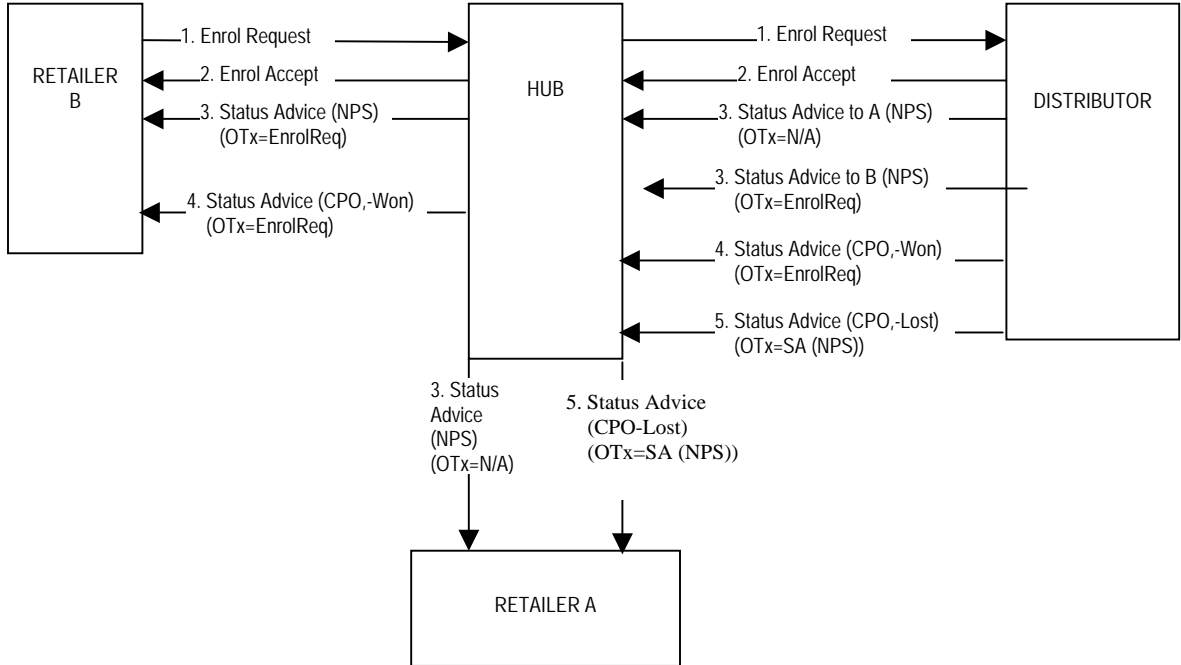
- The Distributor must send the appropriate reason codes for the rejection.

Exceptions: None

Roles and Responsibilities: None

**TRANSACTION FLOW STR-3:
Enrol/Switch STR**

In this scenario, the Consumer is already enrolled with Retailer A and Retailer B submits an Enrol STR. Retailer A does not contest the switch.



Flow:

1. Retailer B submits Enrol Request to the Distributor for Retailer A’s Consumer.
2. Distributor sends an Enrol Accept to Retailer B within 5 business days of receipt.
3. Distributor sends two Status Advice of Notice of Pending Switch (NPS) messages within the same 5 business days as the Enrol Accept. One message goes to Retailer A, the other to Retailer B. The date/time stamp on the outbound Notice of Pending Switch starts the beginning of the 20 day contest period.
4. When the 20 days have passed, Distributor notifies Retailer B with Status Advice of Contest Period Over, have Consumer (CPO-won).
5. Distributor also notifies Retailer A with Status Advice of Contest Period Over, no Consumer (CPO-Lost). Consumer is now with Retailer B.

Rules:

- If there is no contest then the Consumer is enrolled with Retailer B after the expiration of the 20 day hold.

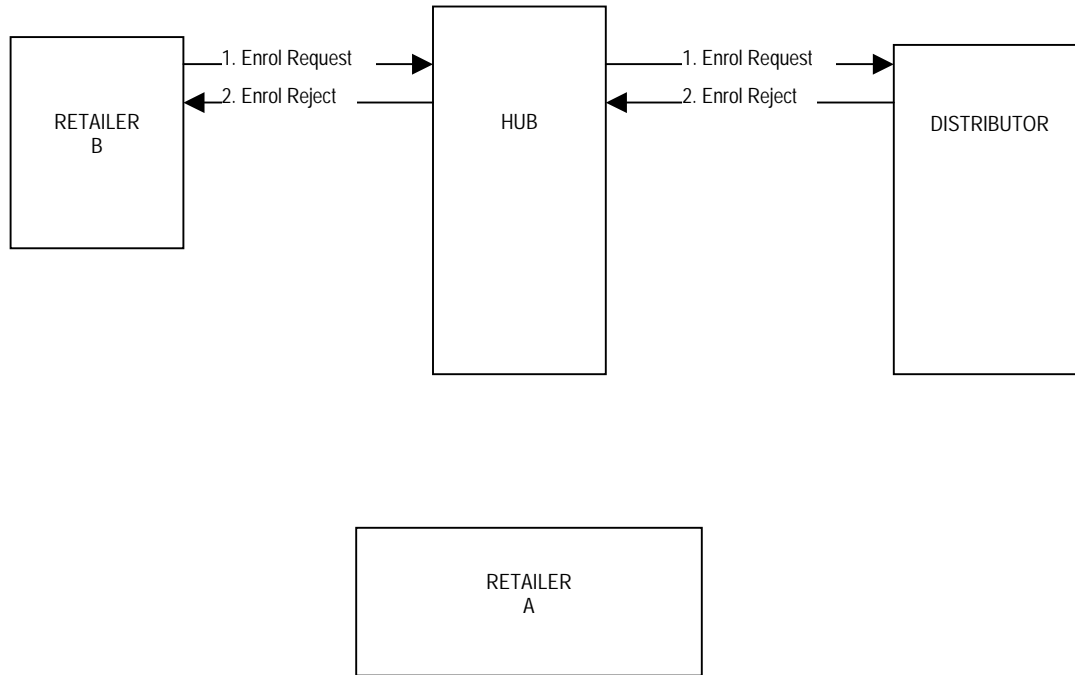
Exceptions: None

Roles and Responsibilities:

Distributor is responsible for notifying Retailer A and B with switch results.

TRANSACTION FLOW STR-4: Enrol/Switch (Enrol Reject) STR

In this scenario, the Consumer is enrolled with Retailer A but the power flow has not begun. Retailer B submits an Enrol STR.



Flow:

1. Retailer B submits enrolment request for Retailer A's Consumer.
2. Distributor sends an Enrol Reject to Retailer B notifying Retailer B that an enrolment is pending.

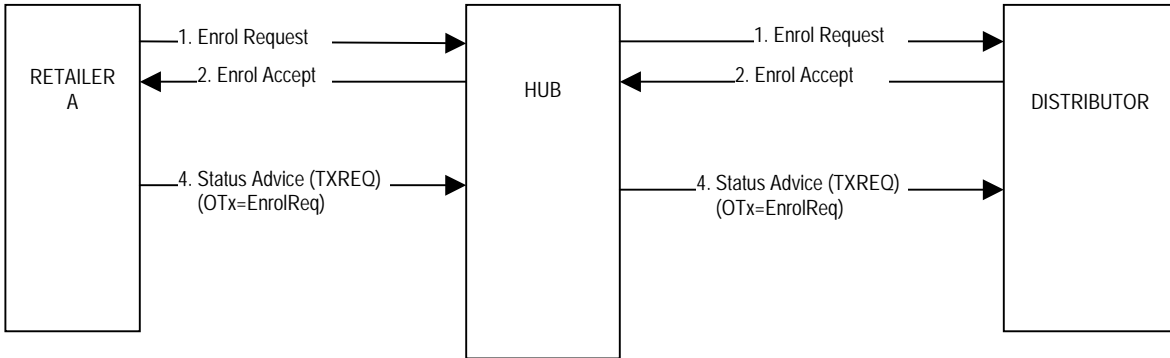
Rules:

- None

Exceptions: None

**TRANSACTION FLOW STR-5:
Enrol/Cancel (Before Power Flow) STR**

In this scenario, the Consumer enrolls with Retailer A, but before power begins to flow, Retailer A wishes to cancel the enrol request.



Flow:

1. Retailer A submits Enrol Request to the Distributor for Retailer A's Consumer.
2. Distributor sends an Enrol Accept to Retailer A within 5 business days of receipt.
3. Retailer A decides they wish to cancel the enrolment.
4. Retailer A sends the Distributor a Status Advice (Terminate Transfer Request).
5. Consumer does not enrol with Retailer A.

Rules:

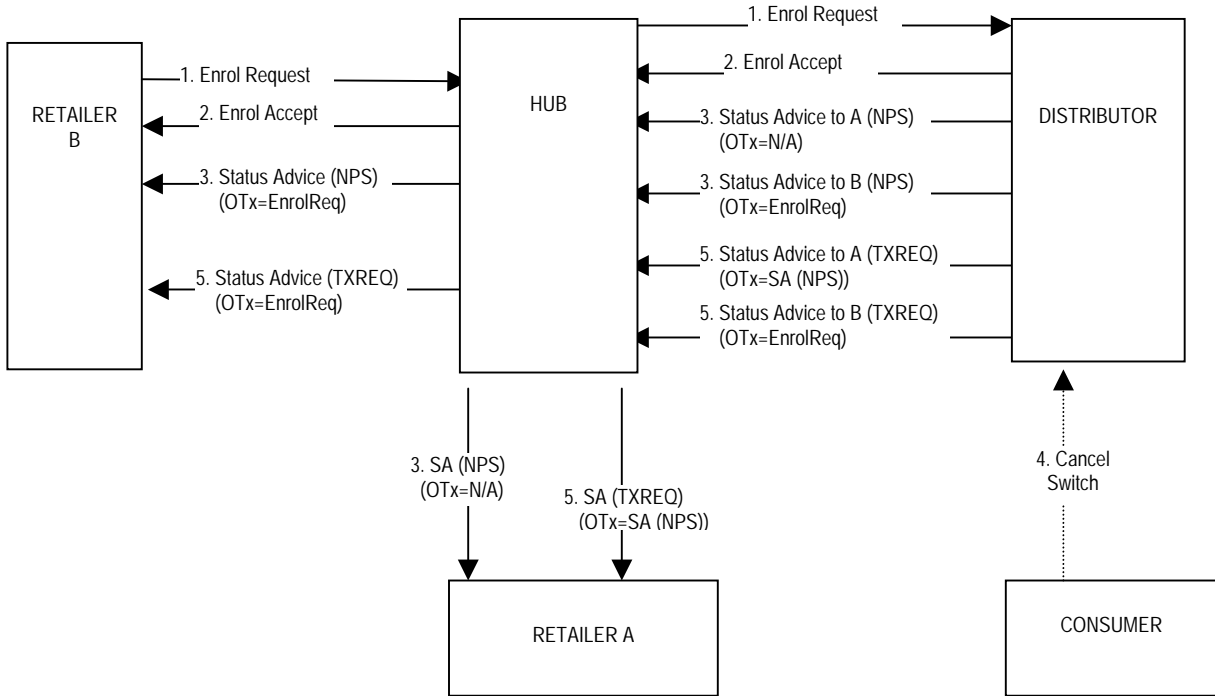
None

Exceptions: None

Roles and Responsibilities: None

**TRANSACTION FLOW STR-6:
Enrol/Switch/Cancel (During Contest Period) STR**

In this scenario, the Consumer is enrolled with Retailer A. Retailer B has sent in the Enrolment Request to the Distributor. The Consumer cancels the switch to Retailer B by contacting the Distributor during the 20 day contest period. The Distributor notifies Retailer A and Retailer B that the transfer has been terminated.



Flow:

1. Retailer B submits Enrol Request to the Distributor for Retailer A’s Consumer.
2. Distributor sends an Enrol Accept to Retailer B within 5 business days of receipt.
3. Distributor sends two Status Advice of Notice of Pending Switch (NPS) messages within the same 5 business days as the Enrol Accept. One message goes to Retailer A, the other to Retailer B. The date/time stamp on the outbound Notice of Pending Switch starts the beginning of the 20 day contest period.
4. Consumer notifies Distributor of desire to cancel the enrolment with Retailer B (Cancels the Switch) within the 20 day window.
5. The Distributor then notifies both Retailers of the Status Advice Terminate Transfer Request (TXREQ).
6. Consumer remains with Retailer A.

Rules:

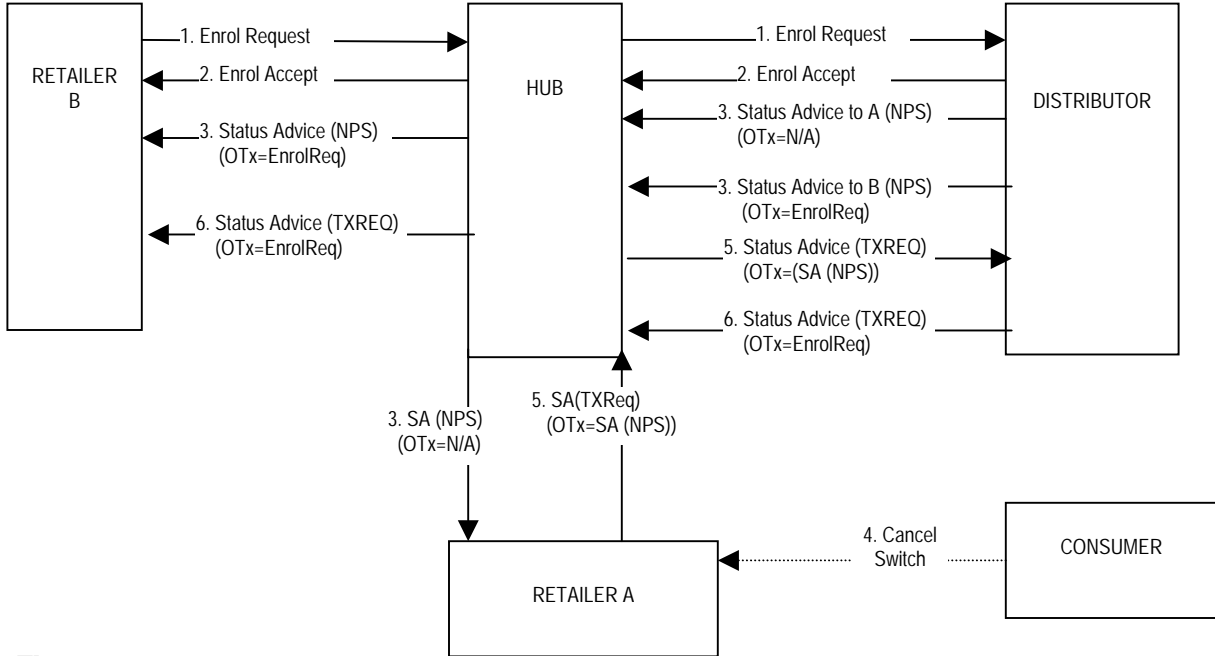
Since this is a ‘pending’ enrolment with Retailer B, only a Status Advice with ‘TxReq’ (Terminate Transfer Request) is required.

Exceptions: None

Roles and Responsibilities: None

**TRANSACTION FLOW STR-7:
Enrol/Switch/Cancel (During the Contest Period) STR**

In this scenario, the Consumer is enrolled with Retailer A. Retailer B has sent in the Enrolment Request to the Distributor. Retailer A contests Retailer B's enrolment and the Consumer cancels the switch to Retailer B (during the 20 day contest period) by notifying Retailer A.



Flow:

1. Retailer B submits Enrol Request to the Distributor for Retailer A's Consumer.
2. Distributor sends an Enrol Accept to Retailer B within 5 business days of receipt.
3. Distributor sends two Status Advice of Notice of Pending Switch (NPS) messages within the same 5 business days as the Enrol Accept. One message goes to Retailer A, the other to Retailer B. The date/time stamp on the outbound Notice of Pending Switch starts the beginning of the 20 day contest period.
4. Consumer notifies Retailer A of desire to cancel the enrolment with Retailer B (Cancels the Switch) within the 20 day window.
5. Retailer A sends the Distributor Status Advice (Terminate Transfer Request).
6. The Distributor then notifies Retailer B with a Status Advice (Terminate Transfer Request) and the Consumer (outside of EBT) that the switch has been cancelled.
7. Consumer remains with Retailer A.

Rules:

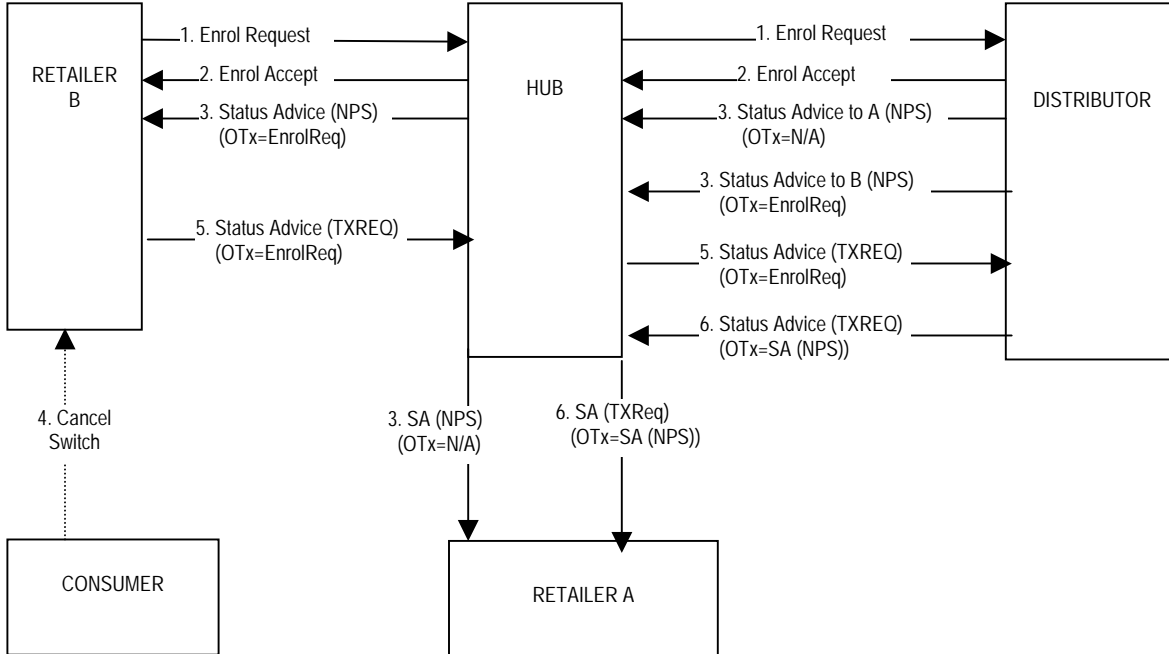
Since this is a 'pending' enrolment with Retailer B, only a Status Advice with 'TxReq' (Terminate Transfer Request) is required.

Exceptions: None

Roles and Responsibilities: None

**TRANSACTION FLOW STR-8:
Enrol/Switch/Cancel (During Contest Period) STR**

In this scenario, the Consumer is enrolled with Retailer A. Retailer B has sent in the Enrolment Request to the Distributor. Consumer cancels the switch during the 20 day contest period by notifying Retailer B. Retailer B cancels their enrolment with the Distributor. The Distributor then notifies Retailer A that the switch has been cancelled.



Flow:

1. Retailer B submits Enrol Request to the Distributor for Retailer A’s Consumer.
2. Distributor sends an Enrol Accept to Retailer B within 5 business days of receipt.
3. Distributor sends two Status Advice of Notice of Pending Switch (NPS) messages within the same 5 business days as the Enrol Accept. One message goes to Retailer A, the other to Retailer B. The date/time stamp on the outbound Notice of Pending Switch starts the beginning of the 20 day contest period.
4. Consumer notifies Retailer B of desire to cancel the enrolment with them (Cancels the Switch) within the 20 day window.
5. Retailer B sends the Distributor Status Advice (Terminate Transfer Request).
6. The Distributor then notifies Retailer A with a Status Advice (Terminate Transfer Request) and the Consumer (outside of EBT) that the switch has been cancelled.
7. Consumer remains with Retailer A.

Rules:

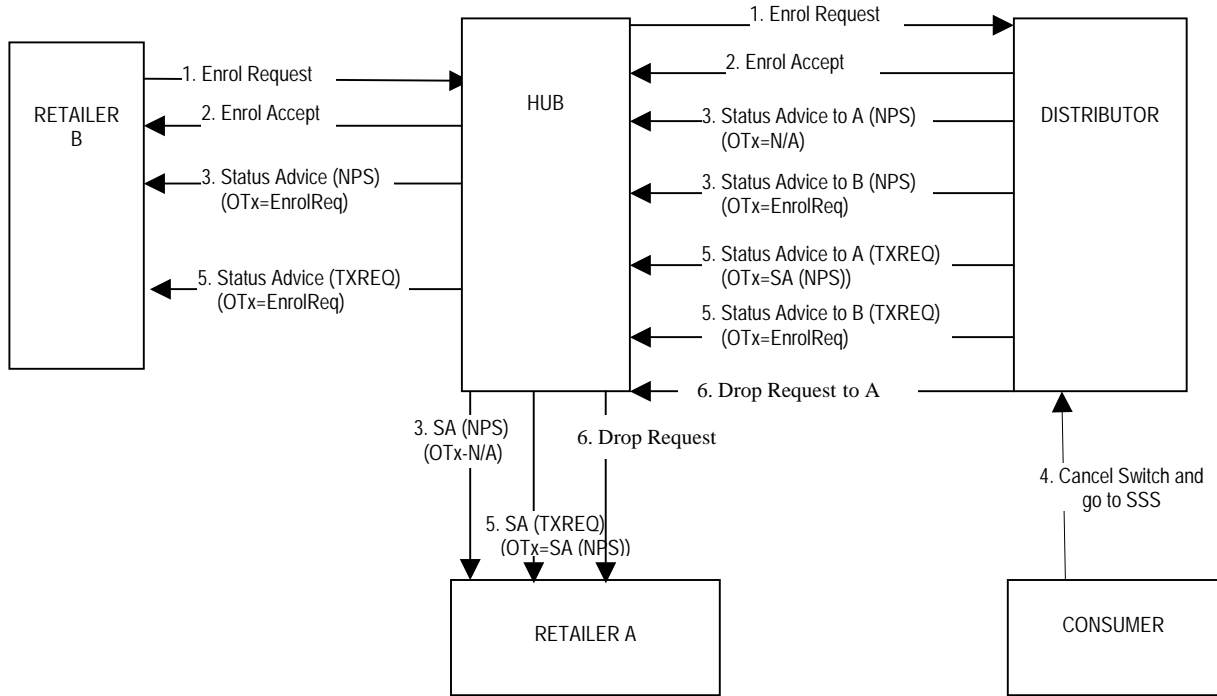
Since this is a ‘pending’ enrolment with Retailer B, only a Status Advice with ‘TxReq’ (Terminate Transfer Request) is needed.

Exceptions: None

Roles and Responsibilities: None

**TRANSACTION FLOW STR-9:
Enrol/Switch/Cancel (During Contest Period) STR**

In this scenario, the Consumer is enrolled with Retailer A. Retailer B has sent in the Enrolment Request to the Distributor. The Consumer cancels the switch to Retailer B during the 20 business day contest period by contacting the Distributor and requesting to return to SSS. The Distributor notifies Retailer A and Retailer B that the transfer has been terminated, and sends a Drop Request to Retailer A.



Flow:

1. Retailer B submits Enrol Request to the Distributor for Retailer A’s Consumer.
2. Distributor sends an Enrol Accept to Retailer B within 5 business days of receipt.
3. Distributor sends two Status Advice of Notice of Pending Switch (NPS) messages within the same 5 business days as the Enrol Accept. One message goes to Retailer A, the other to Retailer B. The date/time stamp on the outbound Notice of Pending Switch starts the beginning of the 20 business day contest period.
4. Consumer notifies Distributor of desire to cancel the enrolment with Retailer B (Cancels the Switch) and to go back to Standard Supply Service within the 20 day window.
5. The Distributor then notifies both Retailers of the Status Advice Terminate Transfer Request (TXREQ).
6. The Distributor sends a Drop Request to Retailer A advising that the Consumer will go to SSS.
7. Consumer goes to SSS at the time specified by the Drop Request.

Rules:

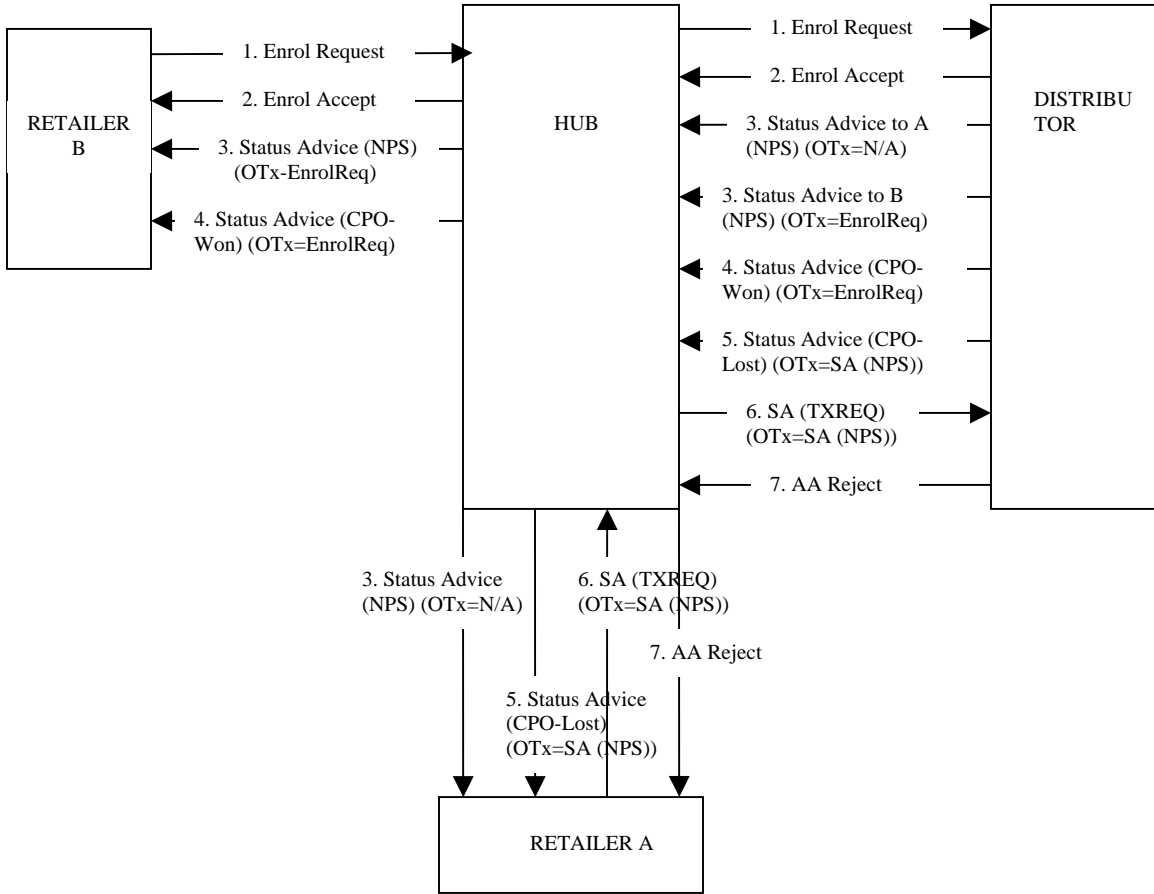
Since this is a ‘pending’ enrolment with Retailer B, only a Status Advice with ‘TxReq’ (Terminate Transfer Request) is required.

Exceptions: None

Roles and Responsibilities: None

**TRANSACTION FLOW STR-10:
Enrol/Switch/Cancel (After Contest Period, Before Switch Date) STR**

In this scenario, the Consumer is enrolled with Retailer A and Retailer B submits an Enrol STR. After the 20 day contest period, the Distributor sends a Status Advice – Contest Period is Over – Won to Retailer B, and a Status Advice – Contest Period Over – Lost to Retailer A. Then, before the switch date, Retailer A sends a Status Advice – Terminate Transfer Request to the Distributor to terminate the switch to Retailer B. The Distributor rejects the Status Advice – Terminate Transfer Request from Retailer A with a Reject Reason “OutsideActionablePeriod” since Retailer A must send the Terminate Transfer Request within the 20 day window, and not after.



Flow:

1. Retailer B submits Enrol Request to the Distributor for Retailer A’s Consumer.
2. Distributor sends an Enrol Accept to Retailer B within 5 business days of receipt.
3. Distributor sends two Status Advice of Notice of Pending Switch (NPS) messages within the same 5 business days as the Enrol Accept. One message goes to Retailer A, the other to Retailer B. The date/time stamp on the outbound Notice of Pending Switch starts the beginning of the 20 day contest period.
4. When the 20 days have passed, Distributor notifies Retailer B with Status Advice of Contest Period Over, have Consumer (CPO-won).
5. Distributor also notifies Retailer A with Status Advice of Contest Period Over, no Consumer (CPO-Lost). Consumer will now switch to Retailer B on the next scheduled read.
6. Retailer A sends a Status Advice (TXREQ) to the Distributor advising of the termination of the switch from Retailer A to B.

7. Distributor rejects the Status Advice with a Reject Reason of “OutsideActionablePeriod” since the contest period is over. Retailer A must send the Terminate Transfer Request prior to the end of the 20 day contest period. The timeframe is based on when Retailer A uploaded its transaction to its Hub. The receiving party (Distributor in this case) should allow for delays introduced from the time the transaction was received at the sender’s (Retailer A in this case) Hub and the transport of the transaction.
8. Consumer will switch to Retailer B as scheduled.

Rules:

- If the Consumer were to contact Retailer A after the contest period is over, Retailer A would refer the Consumer to Retailer B or the Distributor.

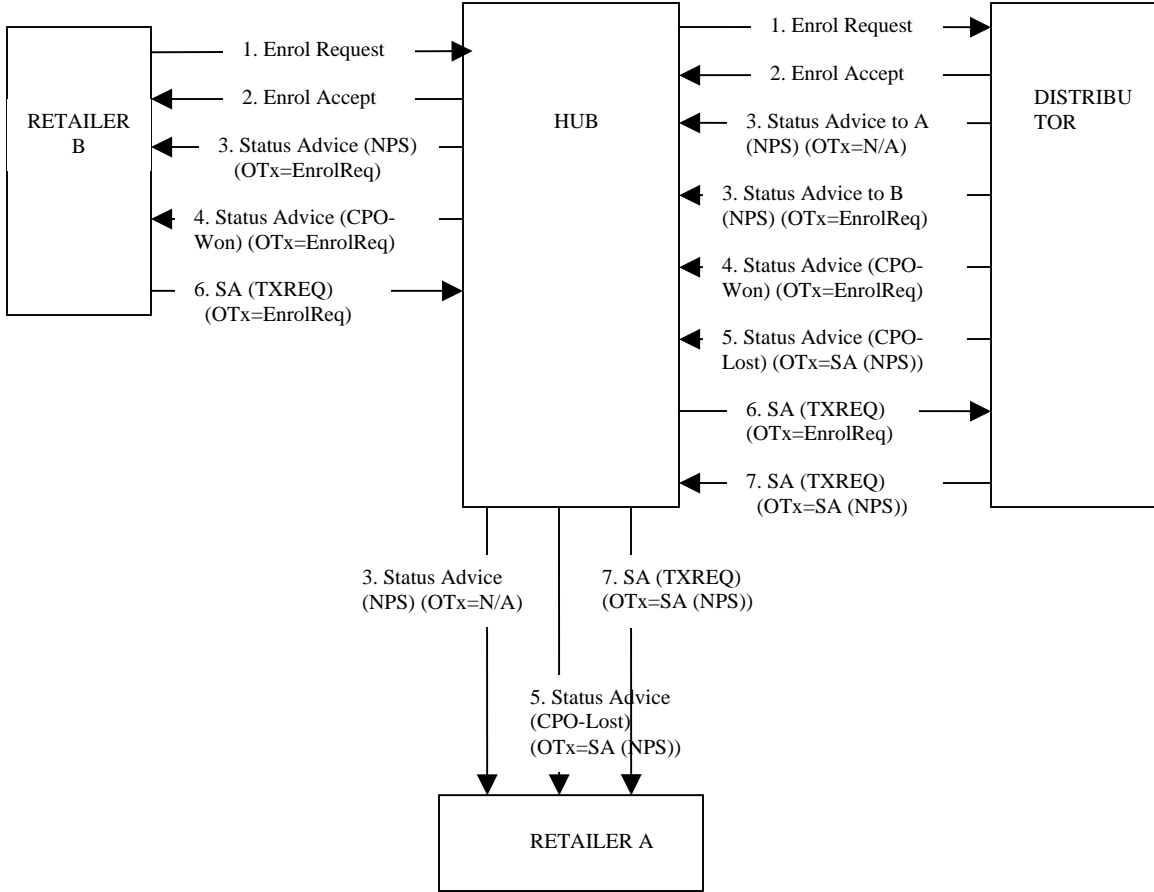
Exceptions: None

Roles and Responsibilities:

Distributor is responsible for notifying Retailer A and B with switch results.

**TRANSACTION FLOW STR-11:
Enrol/Switch/Cancel (After Contest Period, Before Switch Date) STR**

In this scenario, the Consumer is enrolled with Retailer A and Retailer B submits an Enrol STR. After the 20 day contest period, the Distributor sends a Status Advice – Contest Period Over – Won to Retailer B, and a Status Advice – Contest Period Over – Lost to Retailer A. Then, before the switch date, Retailer B sends a Status Advice – Terminate Transfer Request to the Distributor to terminate the switch to Retailer B. The Distributor accepts the Status Advice – Terminate Transfer Request from Retailer B and terminates the switch.



Flow:

1. Retailer B submits Enrol Request to the Distributor for Retailer A’s Consumer.
2. Distributor sends an Enrol Accept to Retailer B within 5 business days of receipt.
3. Distributor sends two Status Advice of Notice of Pending Switch (NPS) messages within the same 5 business days as the Enrol Accept. One message goes to Retailer A, the other to Retailer B. The date/time stamp on the outbound Notice of Pending Switch starts the beginning of the 20 business day contest period.
4. When the 20 days have passed, Distributor notifies Retailer B with Status Advice of Contest Period Over, have Consumer (CPO-won).
5. Distributor also notifies Retailer A with Status Advice of Contest Period Over, no Consumer (CPO-Lost). Consumer will now switch to Retailer B on the next scheduled read.
6. Retailer B sends a Status Advice (TXREQ) to the Distributor advising of the termination of the switch from Retailer A to B.

7. Distributor accepts the Status Advice Terminate Transfer Request. Retailer A should accept the Terminate Transfer Request even after a Status Advice Contest Period Over – Lost has been received.
8. Consumer will continue with Retailer A.

Rules:

- Retailer A should accept a Terminate Transfer Request even after receiving a Status Advice Contest Period Over - Lost.

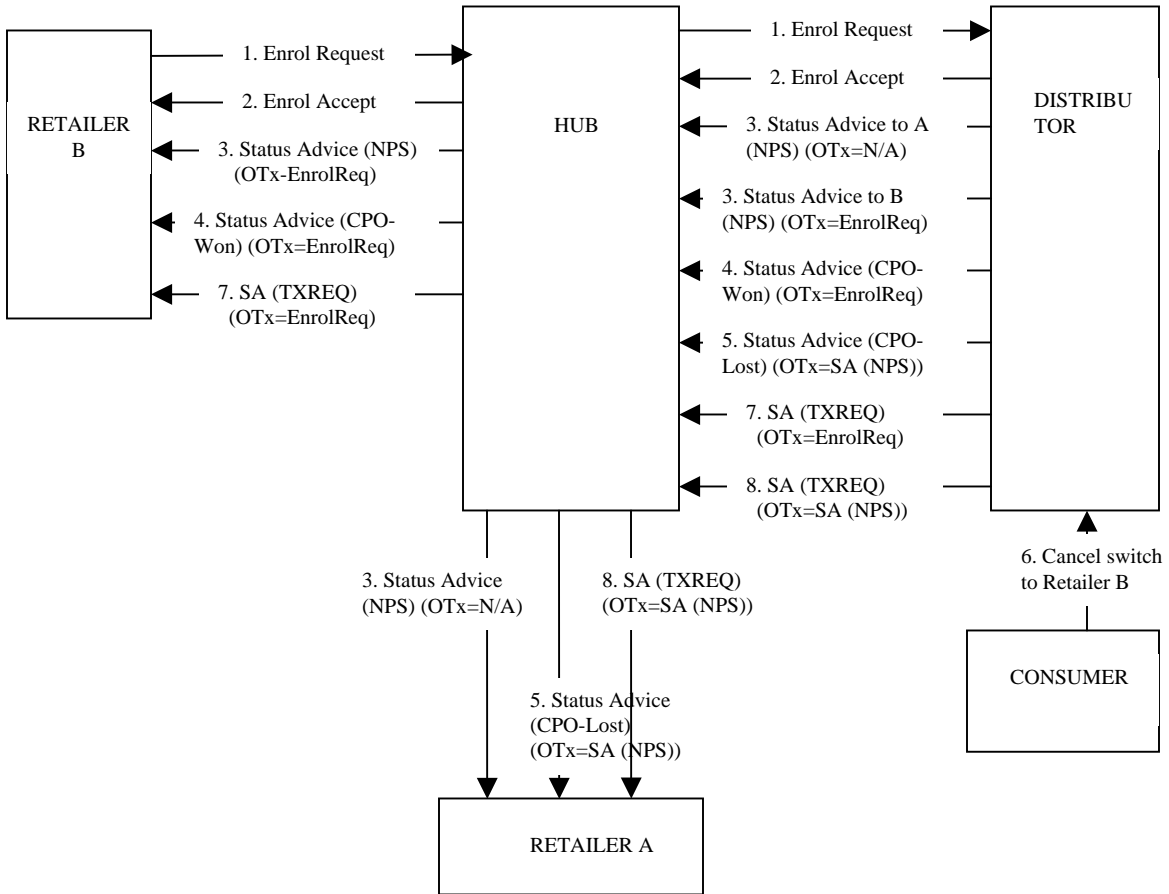
Exceptions: None

Roles and Responsibilities:

Distributor is responsible for notifying Retailer A and B with switch results.

**TRANSACTION FLOW STR-12:
Enrol/Switch/Cancel (After Contest Period, Before Switch Date) STR**

In this scenario, the Consumer is enrolled with Retailer A and Retailer B submits an Enrol STR. After the 20 day contest period, the Distributor sends a Status Advice – Contest Period Over – Won to Retailer B, and a Status Advice – Contest Period Over – Lost to Retailer A. Then, before the switch date, the Consumer contacts the Distributor wishing to remain with Retailer A. The Distributor sends a Status Advice – Terminate Transfer Request to Retailers A and B to terminate the switch to Retailer B.



Flow:

1. Retailer B submits Enrol Request to the Distributor for Retailer A's Consumer.
2. Distributor sends an Enrol Accept to Retailer B within 5 business days of receipt.
3. Distributor sends two Status Advice of Notice of Pending Switch (NPS) messages within the same 5 business days as the Enrol Accept. One message goes to Retailer A, the other to Retailer B. The date/time stamp on the outbound Notice of Pending Switch starts the beginning of the 20 business day contest period.
4. When the 20 days have passed, Distributor notifies Retailer B with Status Advice of Contest Period Over, have Consumer (CPO-won).
5. Distributor also notifies Retailer A with Status Advice of Contest Period Over, no Consumer (CPO-Lost). Consumer will now switch to Retailer B on the next scheduled read.
6. Consumer contacts the Distributor wishing to remain with Retailer A (cancels the switch to Retailer B).
7. Distributor sends a Status Advice (TXREQ) to the Retailers A and B advising of the termination of the switch from Retailer A to B.
8. Retailers A and B should accept the Terminate Transfer Request even after a Status Advice Contest Period Over has been received.
9. Consumer will continue with Retailer A.

Rules:

- Retailers A and B should accept a Terminate Transfer Request even after receiving a Status Advice Contest Period Over.

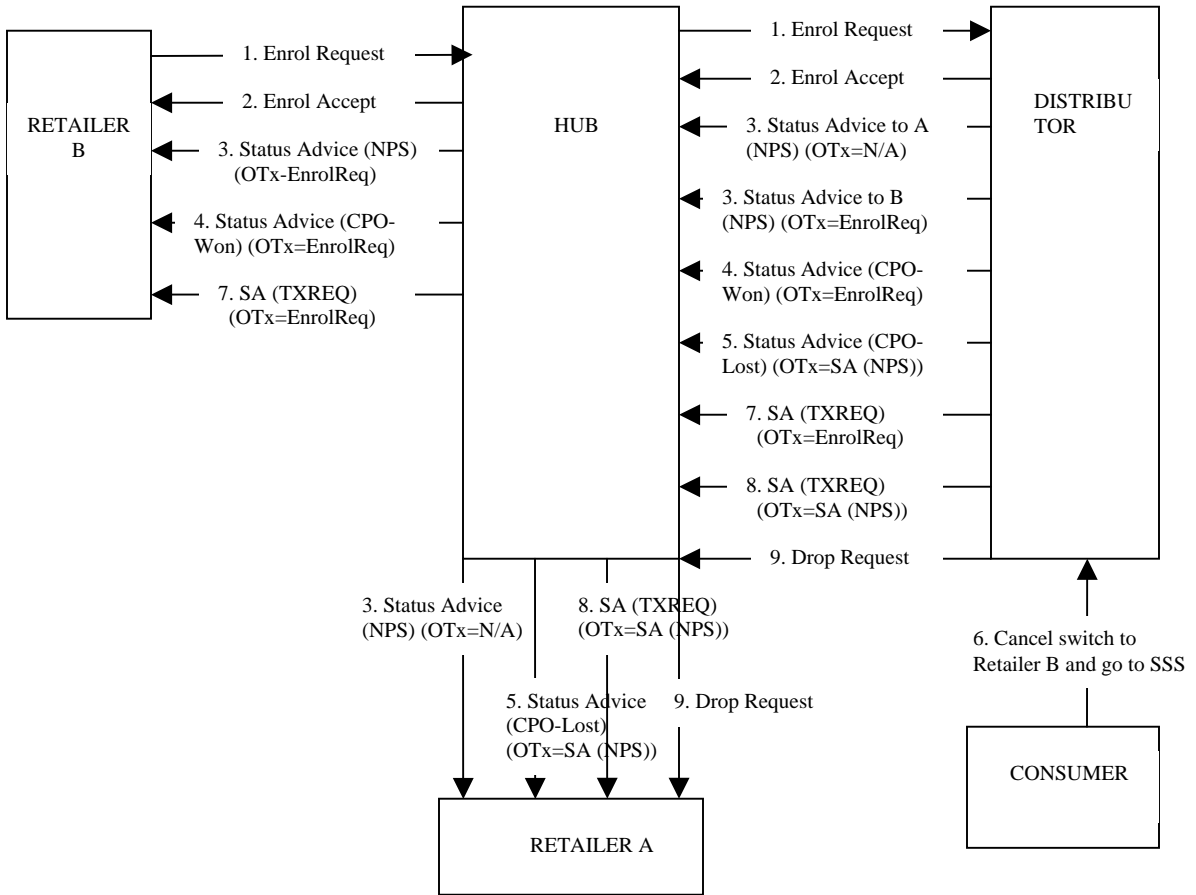
Exceptions: None

Roles and Responsibilities:

Distributor is responsible for notifying Retailer A and B with switch results.

**TRANSACTION FLOW STR-13:
Enrol/Switch/Cancel (After Contest Period, Before Switch Date) STR**

In this scenario, the Consumer is enrolled with Retailer A and Retailer B submits an Enrol STR. After the 20 day contest period, the Distributor sends a Status Advice – Contest Period Over – Won to Retailer B, and a Status Advice – Contest Period Over – Lost to Retailer A. Then, before the switch date, the Consumer contacts the Distributor wishing to go back to Standard Supply Service. The Distributor sends a Status Advice – Terminate Transfer Request to Retailers A and B to terminate the switch to Retailer B, and sends a Drop Request to Retailer A to return the Consumer to SSS.



Flow:

1. Retailer B submits Enrol Request to the Distributor for Retailer A's Consumer.
2. Distributor sends an Enrol Accept to Retailer B within 5 business days of receipt.
3. Distributor sends two Status Advice of Notice of Pending Switch (NPS) messages within the same 5 business days as the Enrol Accept. One message goes to Retailer A, the other to Retailer B. The date/time stamp on the outbound Notice of Pending Switch starts the beginning of the 20 business day contest period.
4. When the 20 days have passed, Distributor notifies Retailer B with Status Advice of Contest Period Over, have Consumer (CPO-won).
5. Distributor also notifies Retailer A with Status Advice of Contest Period Over, no Consumer (CPO-Lost). Consumer will now switch to Retailer B on the next scheduled read.
6. Consumer contacts the Distributor wishing to go back to Standard Supply Service (cancels the switch to Retailer B).
7. Distributor sends a Status Advice (TXREQ) to the Retailers A and B advising of the termination of the switch from Retailer A to B, and sends a Drop Request to Retailer A.
8. Retailers A and B should accept the Terminate Transfer Request even after a Status Advice Contest Period Over has been received.
9. Consumer will continue with Retailer A.

Rules:

- Retailers A and B should accept a Terminate Transfer Request even after receiving a Status Advice Contest Period Over.

Exceptions: None

Roles and Responsibilities:

Distributor is responsible for notifying Retailer A and B with switch results.

5.1.2 STR -- Consumer Information Requests: Historical Usage, Meter Information, and Historical Payment.

Definition/Purpose

The Consumer Information Request STR is issued by the Retailer to gather information about the Consumer. The Retailer can request usage history, meter information, or payment history, as separate requests. The Retailer is responsible for obtaining and maintaining the appropriate Consumer authorization in accordance with OEB rules. See transaction flow STR-14 and 15.

Flow

The Retailer sends a Meter Information Request, a Historical Usage Request or a Historical Payment Request to the Distributor. The Distributor can reject any of the transactions if validation fails and indicate the reason for the rejection. If a request is accepted, the Distributor responds with a Meter Maintenance Transaction, a Historical Usage Accept Transaction, or a Historical Payment Accept Transaction, depending on the files requested.

General Description of Data

The request transaction includes account identification information and indicates whether meter information, historical usage or payment history is requested and how many periods. A request can be for up to 24 billing periods of meter or payment history.

Response

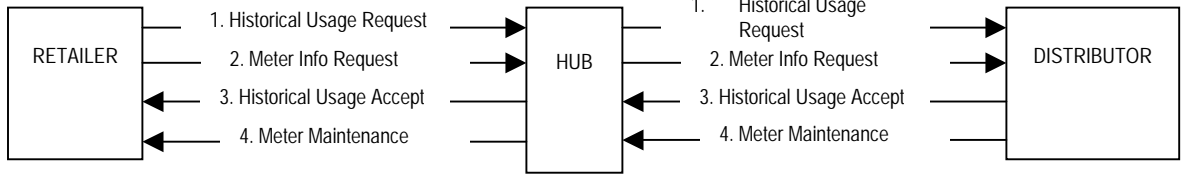
The Distributor responds by:

- Sending a Historical Payment Accept if payment history was requested. A response for payment history includes the number of payment periods available for the Consumer, number of disconnects and NSF cheques within the payment period and how many days the Consumer's balance is overdue.
- Sending a Meter Maintenance Transaction if meter information was requested
- Sending a Historical Usage Accept if historical usage was requested. See the Meter Data Transaction section for details on the data sent in the Historical Usage and Meter Information Responses.
- Sending a Reject Response (STR) if no data is available for the Consumer or if validation failed.

Rules

If meter information has not been requested prior to the historical usage request, it must be submitted as a separate STR at the same time.

Transaction Flow STR-14: Historical Usage Accept



Flow:

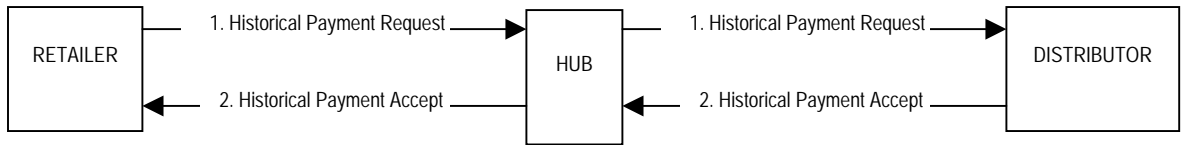
1. The Retailer sends a Historical Usage request to the Distributor
2. The Retailer sends a Meter Information request (if not previously requested) to the Distributor
3. The Distributor responds with a Historical Usage Accept transaction
4. The Distributor responds with a Meter Maintenance transaction, as appropriate

Rules: None

Exceptions: None

Roles and Responsibilities: None

Transaction Flow STR-15: Historical Payment



Flow:

1. The Retailer sends a Historical Payment Request to the Distributor.
2. Distributor responds with the Historical Payment Accept.

Rules: None

Exceptions: None

Roles and Responsibilities: None

5.1.3 STR - Meter Change Request

Definition /purpose/flow

The Meter Change Request is used by the Retailer to request a new type of meter to be installed by the Distributor for an end-use Consumer. See Transaction Flow STR-16 and 17.

Data

The Retailer must include the meter number for the existing meter that will be removed and the meter type for the replacement. In the Meter Change Accept transaction, the Distributor will send the meter cycle and billing cycle if these are different due to the meter change. The Retailer will request a change meter installation date and the Distributor will either confirm this date or provide a new projected installation date in the accept transaction.

Response

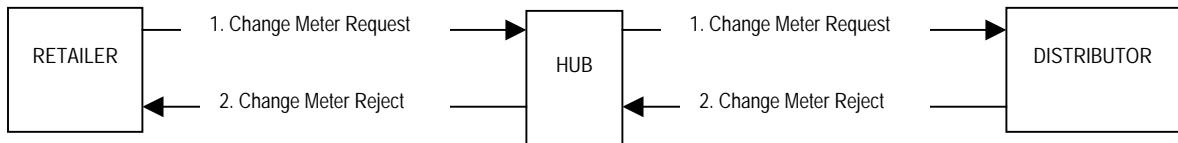
The Distributor will respond to the Meter Change Request with an accept or a reject transaction. The Meter Change Request may be rejected for reasons such as "the existing meter number does not match" or "the type of meter requested is incompatible with the service information".

Rules

The Distributor will bill the Retailer for the new meter installation. If a Consumer on competitive service calls the Distributor with a change meter request, the Distributor will advise the Consumer to call the Retailer, since a change in the meter type may not be consistent with the Consumer's current contract with the Retailer. The Distributor will make available a list of the meter options provided to the Retailers.

TRANSACTION FLOW STR-16: Meter Change STR - Reject

This is a Meter Change Request. The STR is rejected.



Flow:

1. Retailer submits a Meter Change Request to the Distributor.
2. Distributor responds within 5 business days of receipt and sends a Meter Change Reject.

Rules:

- The Distributor sends the appropriate reason codes for the rejection.

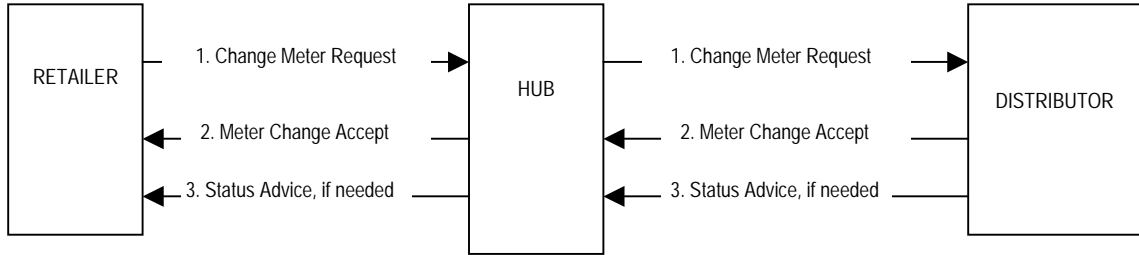
Exceptions: None

Roles and Responsibilities: None

TRANSACTION FLOW STR-17:

Meter Change STR - Accept

This is a Meter Change Request. The STR is accepted.



Flow:

1. Retailer submits an Enrol request that includes a Meter Change Request to the Distributor.
2. Distributor sends the Enrol Accept and Meter Change Accept within 5 business days of receipt.
3. Distributor sends a Status Advice if the effective date is changed (i.e., if the meter change out delays enrolment effective date).

Rules:

- A Status Advice with a New Effective Date is sent when the Distributor determines that the meter change out date will be different than the meter change date sent with the Meter Change Accept.

Exceptions: None

Roles and Responsibilities:

The Distributor must notify the Retailer when the status of STRs changes.

5.1.4 STR - Change Consumer Information

Definition/Purpose

The Change Consumer Information STR is a transaction for communicating information changes between the parties who service the Consumer. Any field within the Enrol Accept file may be changed.

Flow

This request may be sent by either the Distributor to the Retailer or by the Retailer to the Distributor. There is no requirement for the Distributor to match their information to the Retailer. The Distributor is the “owner” of the Consumer information. See Transaction Flow STR-18 and STR-19. The flow for the Change Billing Option transaction will work similarly to that for the Enrolment Request as illustrated in the flow STR-1.

Data Description

The sender will provide the transaction purpose, the field changed, the reason for the change, the changed information, and the effective date.

Response

The party receiving the Change Consumer Information request will respond within five business days upon receipt by sending a Change Consumer Information Accept. If the Change Consumer Information Request is sent to the Retailer, the Retailer will echo back the same fields sent by the Distributor. If the Change Consumer Information Request is sent to the Distributor, the Distributor will amend its records where appropriate and respond back to the Retailer with the new current data.

Rules

Once a Distributor has sent an Enrol Accept transaction and the Consumer is in a pending enrol state with a Retailer, the Change Consumer information STR must be used to communicate updated information between the Retailer and the Distributor even though power flow from the Retailer has not begun. The Distributor ultimately owns the information of record regarding the Consumer. If the Consumer is already enrolled with one Retailer, but there is a pending enrol with a second Retailer, the Change Consumer information STR must be sent to both Retailers in order to keep both up to date.

Rate and/or billing option changes made between bill cycles will only occur on the “next scheduled read”. Changes to billing options need to be sent through the Change Billing Option Transaction. The Retailer is obligated to inform the Distributor of a change in the billing option, and the Distributor will make the appropriate changes as of the effective date sent in the Change Billing Option Accept. There is no separate transaction to cancel a Change Billing Option. When a Change Billing Option transaction is issued and at a later date the request needs to be cancelled, the trading party that originally issued the transaction should issue a new Change Billing Option transaction and explicitly change it back. Whatever state is last set when the bill is issued to the Consumer will be the billing option for that month.

If a trading partner sends an old account number, the account number switch date must also be included. An old account number must be presented in the EBT transactions for at least two billing periods.

CCI Requests have a 'requested effective date'. This effective date is to be built with the date the transaction was constructed.

Note re “Fullname” Format:

To move the implementations to a common format, the preferred order of names within the ‘Fullname’ element is defined. To accommodate legacy systems, this is only the recommended order of names.

The preferred convention is:

“<salutation><first name or initial><initial or second name><last name><title suffix>

OR

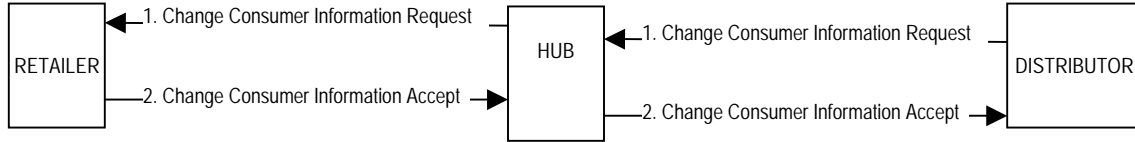
“<company name><ltd. or inc., etc.>”

Examples

Mrs. Anne K Jones
Mr. Bill Mark Smith III
ABC Company Ltd.

TRANSACTION FLOW STR-18: Change Consumer Information STR

Distributor to Retailer



Flow:

1. Distributor sends a Change Consumer Information Request to the Retailer.
2. Retailer responds within 5 business days of receipt and sends a Change Consumer Information Accept.

Rules:

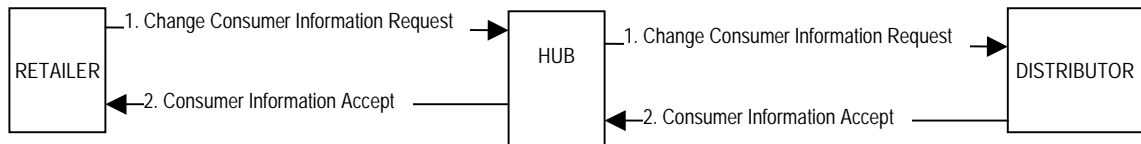
- The Distributor is considered the “owner” of the Consumer Information. The Distributor must provide the Retailer with updates to the Consumer records.

Exceptions: None

Roles and Responsibilities: None

TRANSACTION FLOW STR-19: Change Consumer Information STR

Retailer to Distributor



Flow:

1. Retailer sends the Change Consumer Information Request to the Distributor.
2. Distributor responds within 5 business days of receipt and sends a Change Consumer Information Accept. The Distributor may or may not change the Consumer records per the Retailer request, but must send back to the Retailer the field as it is in the Distributor’s system.

Rules:

- The Distributor is considered the “owner” of the Consumer Information. The Retailer must provide the Distributor with updates to the Consumer information if changed.

Exceptions: None

Roles and Responsibilities: None

5.1.5 STR – Change Consumer Location

Definition/purpose

A Consumer may move to new premises within or outside of the Distributor service territory. The Change Consumer Location STR is used only when the move is within the Distributor service territory. It provides the opportunity for a Consumer to retain their enrolment with their existing Retailer at their new premises. When the Consumer moves outside the Distributor's territory, a STR-Drop is used. See Transaction Flows STR-20, 21, 22, and 23 for moves inside the Distributor's territory and see Transaction Flows STR- 24 and 25 for moves outside the Distributor's territory. The rules for each of these scenarios are described at the end of this section.

Flow

Typically, a Consumer will contact the Distributor when they are moving. If the Consumer contacts the Retailer instead, the Retailer may refer the Consumer to the Distributor or send a Status Advice to the Distributor notifying of Consumer intent to move. **In any event, the Distributor and the Consumer will make contact to arrange details of the move.**

If a Consumer notifies the Distributor that they are moving inside the Distributor's territory but no longer wishes to remain with the same Retailer, the Distributor may indicate this to the Retailer using one of the following flows:

- Issue a Change Consumer Location transaction followed by a Drop Request transaction; or
- Bypass issuing the Change Consumer Location transaction and only issue a Drop Request transaction. From the Retailer's view, this optional flow appears to be identical to the flow for a move that is out of the Distributor's territory.

In both cases, the forwarding address of the Drop Request transaction must be filled in.

If the Consumer notifies the Retailer of the move, the Retailer will send a Status Advice to the Distributor indicating the Consumer's move followed by a Drop request.

If the Distributor has issued a Change Consumer Location transaction in error, this transaction can be cancelled by sending the Retailer a Status Advice with a "Terminate Transfer Request" as the reason code.

General Description of Data

The information sent in the Change Consumer Location Request includes the new Distributor account number if applicable, the new billing and service addresses, and the associated dates for the old and new service locations as provided by the Consumer.

If a trading partner sends an old account number, the account number switch date must also be included. An old account number must be presented in the EBT transactions for at least two billing periods.

Response

If the Retailer replies with a Change Consumer Location Accept, or does not reply before the move, the Distributor will maintain Consumer enrolment with the Retailer at the new location, provided the rules listed below are met.

For an In Territory move, once the Change Consumer Location Request has been sent, the Distributor shall not send a Drop Request on the move out location.

If the move out date in the Change Consumer Location Request is future dated, the Retailer may reply with a Change Consumer Location Reject with a reason of “RetailerRejectsConsumer”. This reject reason will instruct the Distributor not to enrol the Consumer at Location 2 to the Retailer of record.

If the move out date in the Change Consumer Location Request is backdated then the Retailer must accept the Change Consumer Location Request and issue a Drop Request at Location 2 if they choose.

Rules

The Change Consumer Location Request allows a Consumer to stay enrolled with the same Retailer at the new address and must occur when the following conditions are met:

- Any Consumer is eligible for an in-territory move.
- The account billing method is split billing or bill ready option (not rate ready).
- A Distributor shall issue a CCL to a Retailer when it is has been determined that the same Consumer is moving from one location to another location within the service territory. If the Consumer does not provide a move in date then a Drop Request will be issued.
- If Move In information is provided after a Drop Request has been sent and prior to the final meter read being dispatched to the field, then the Drop will be terminated and a CCL will be issued to the Retailer.
- If the Consumer provides the required details with respect to an in-territory move and is still currently registered in Location 1, then the Distributor will issue a CCL transaction to the Retailer. Notification of the move may occur before or after the physical move.
- Gap and overlap scenarios will be allowed.
- There are no restrictions with respect to the number, type of meters, and/or service points at the new service location.
- In-territory moves and rules surrounding contest periods are dependent on when the move occurs and when the Consumer contacts the Distributor (refer to the Scenarios section below).

The Distributor will not delay the move if there is not sufficient lead time for notification and response from the Retailer.

For out of territory moves, the Distributor shall initiate a Drop Request to the Retailer for service at the old location. If the Retailer intends to maintain Consumer enrolment at the

new location, the Retailer must initiate an Enrol STR with the new Distributor at the new service location.

In-Territory Move Scenarios

Scenarios and In-Territory Move Working Principles	
1.	<p>At the time a Consumer contacts a Distributor, the information relayed to the Distributor will determine the appropriate transaction to notify a Retailer(s) of Consumer relocation.</p> <p>If criteria/rules are met and the relocation is within the Distributor’s service territory, then a CCL transaction will be initiated.</p> <p>If criteria are met and the relocation is outside the Distributor’s service territory, then a Drop Request transaction will be initiated.</p>
2.	<p>The CCL transaction is intended to ensure that the Consumer/Retailer relationship is maintained throughout an in-territory move. The CCL transaction is sent by the Distributor to the Retailer(s) to inform of a Consumer move within the Distributor’s service territory and will provide all required data as per the schemas.</p>
3.	<p>Definition of a Consumer re-location within a Distributor’s territory, which will result in a CCL transaction, includes:</p> <ul style="list-style-type: none"> • move out and move in on the same dates (simple); • move out date less than move in date (gap); and • move out date greater than move in date (overlap).
4.	<p>For a gap or overlap scenario, if the Consumer provided all relevant data at the time of notification to the Distributor (dates and move in location), then a CCL transaction will be initiated by the Distributor regardless of the difference (gap or overlap) in the dates provided.</p>
5.	<p>Regardless of when a Consumer notifies the Distributor of relocation, (prior to, on or after the move out date) a CCL transaction will be initiated if the criteria are met as outlined in the “Rules” section above.</p>
6.	<p>If the Consumer notifies the Distributor of a relocation cancel after a CCL has been issued, then a SA-TTX will be issued and sent to the Retailer(s).</p>
7.	<p>If the Consumer notifies the Distributor of a date change after a CCL has been issued, then a SA-NED will be issued and sent to the Retailer.</p> <p>If the date change is for the Move Out date then the value will be “New Effective Date – Move Out”</p>

Scenarios and In-Territory Move Working Principles	
	<p>If the date change is for the Move In date then the value will be “New Effective Date – Move In”</p> <p>If there is a date change for both the Move In and Move Out dates then two SA transactions will be sent, one for the Move In date and one for the Move Out date.</p>
8.	<p>If information in the CCL transaction requires modification (as a result of Consumer contact and or processing errors) prior to the Move In date, then a SA-TTX will be issued to cancel the original CCL and a new CCL will be issued reflecting the change.</p> <p>If the information requires modification after the Move In date then the Distributor will generate a CCI transaction.</p>
9.	<p>All Usage transactions (and the required values for the UsagePurpose data field) associated with the CCL process will follow the business rules as outlined in Section 5.2.1 Usage Transaction.</p>
10.	<p>The Retailer must have the ability in a gap and or overlap scenario to generate separate IBRs in response to Usage transactions received in which the account number is the same for both the old and new premise locations.</p>
11.	<p>The Distributor has the responsibility to maintain all internal processes (meter reads, billing, etc) throughout the CCL process with or without a response from the Retailer.</p>
12.	<p>The Retailer will respond to the CCL transaction with a Change Consumer Location Accept transaction if they wish to continue the relationship with the Consumer.</p>
13.	<p>If a Retailer does not wish to continue the Consumer relationship, then a Change Consumer Location Reject will be issued with a reject reason of “RetailerRejectsConsumer”. This specific reject reason will be equivalent to a Drop Request for the Distributor. No response is required from the Distributor to the Retailer.</p>
14.	<p>In the scenario in which a CCL has been initiated by the Distributor to Retailer A and then Retailer B submits an Enrol Request for the Consumer, the Distributor will respond to the Enrol Request as follows:</p> <ul style="list-style-type: none"> • Issue an Enrolment Reject to Retailer B with a Reject Reason of “PendingMove”. <p>This reject reason provides a method for Retailer B to re-submit the Enrolment Request after contacting the Consumer.</p>

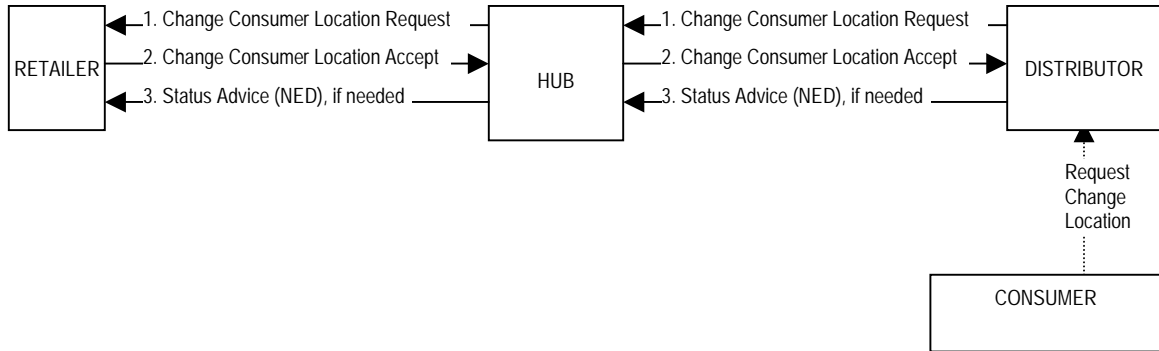
Scenarios and In-Territory Move Working Principles	
	<p>Note: The Enrolment Reject of “PendingMove” will also apply for a Consumer on SSS.</p>
15.	<p>If during the period in which a Consumer’s account is in a Contest and the Consumer notifies the Distributor of an in-territory move prior to the end of the Contest period, the Distributor may cancel the Enrol transaction (thus the Contest) by sending SA-TTX transactions to both Retailers.</p> <ul style="list-style-type: none"> • The “SA-TTX PendingMove” transaction will be sent to both Retailers <p>In the event that a Retailer rejects the SA-TTXPendingMove transaction it must be noted that the Contest period will be terminated. However, the responsibility to correct and resend the SA-TTXPendingMove transaction remains with the Distributor.</p>
16.	<p>If during the period in which the Contest is over but prior to power flow with the winning Retailer (SA-CPO transactions having been sent to both Retailers) the Consumer notifies the Distributor of a move, then the following will apply:</p> <ul style="list-style-type: none"> • The Distributor shall inform at least the winning Retailer of the in-territory move and may inform the second Retailer using a Change Consumer Location transaction if they choose. • If the move date is prior to the current switch date, the Distributor will amend the switch date to match the move date and send SA-NEDs to both Retailers. • If the move date is after the current switch date, then the Distributor may amend the date and send SA-NEDs to both Retailers if they choose.

Scenario: Move within Distributor Territory

If the Consumer is moving within the service territory, then the Distributor service representative will initiate action that will result in continuation of service with the same Retailer at the new address (referred to as a “seamless move”), unless the Consumer indicates that they wish to return to Standard Supply Service. The Distributor will notify the Retailer by means of a Change Consumer Location Request that the seamless move will take place.

TRANSACTION FLOW STR-20: Change Consumer Location STR

In this scenario, the Consumer notifies the Distributor about the change of location within the Distributor's territory. The Retailer accepts the change of location.



Flow:

Consumer contacts Distributor with a Change Location (Move) request inside the current Distributor's territory.

1. Distributor sends a Change Consumer Location Request to the Retailer after verifying change location information with Consumer.
2. Retailer accepts the Change Consumer Location Request by sending the Distributor a Change Consumer Location Accept.
3. The Distributor sends a Status Advice (New Effective Date) if either the Move In or Move Out date changes from the original dates sent in the Change Consumer Location Request.

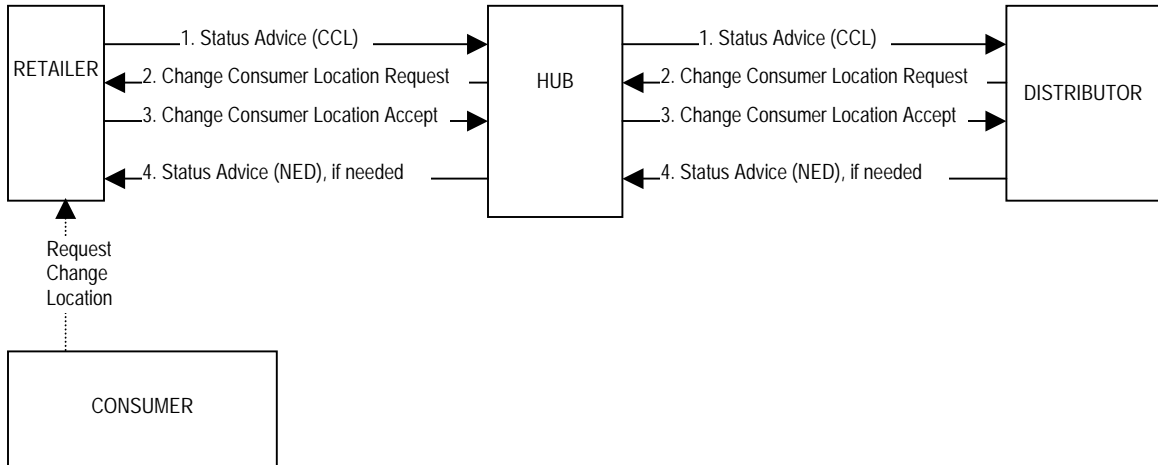
Rules: None

Exceptions: None

Roles and Responsibilities: None

TRANSACTION FLOW STR-21: Change Consumer Location STR

In this scenario, the Consumer notifies the Retailer about the change of location within the Distributor's territory. The Retailer accepts the change of location.



Flow:

Consumer contacts Retailer with a Change Location (Move) request inside the current Distributor's territory.

1. Retailer sends a Status Advice (Change Consumer Location) to the Distributor.
2. Distributor sends a Change Consumer Location Request to Retailer after verifying change location information with Consumer.
3. Retailer accepts the Change Consumer Location Request by sending the Distributor a Change Consumer Location Accept.
4. The Distributor sends a Status Advice (New Effective Date) if either the Move In or Move Out date changes.

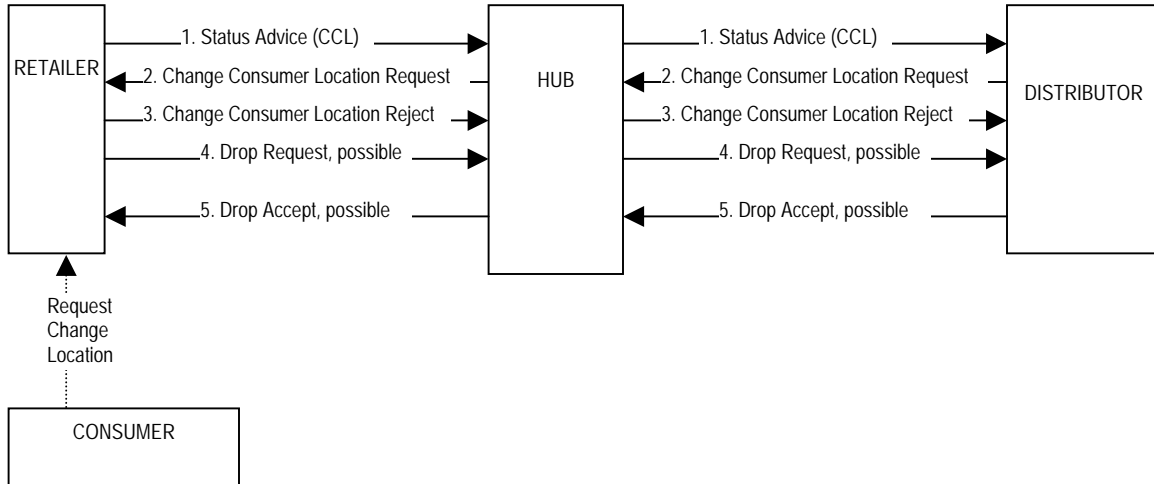
Rules: None

Exceptions: None

Roles and Responsibilities: None

**TRANSACTION FLOW STR-22:
Change Consumer Location STR**

In this scenario, the Consumer notifies the Retailer of the change of location within the Distributor's territory and the Retailer rejects the change of location.



Flow:

Consumer contacts Retailer with a Change Location (Move) request inside the current Distributor's territory.

1. Retailer sends a Status Advice (Change Consumer Location) to the Distributor.
2. Distributor sends a Change Consumer Location Request to Retailer after verifying change location information with Consumer.
3. Retailer sends a Change Consumer Location Reject. The Consumer will drop to SSS upon the Move Out date.
4. Retailer sends a Drop Request if they choose to drop the Consumer before the Move Out date. The Retailer will pay for the meter reading to drop before the move.
5. Distributor sends a Drop Accept to the Retailer.

Rules: None

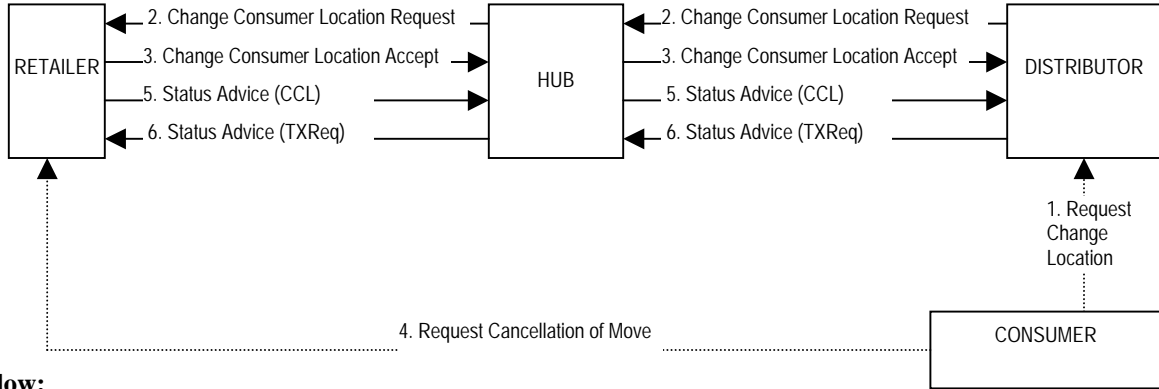
Exceptions: None

Roles and Responsibilities:

Retailer may ask the Consumer to contact the Distributor directly regarding a move.

**TRANSACTION FLOW STR-23:
Change Consumer Location STR**

In this scenario, the Consumer notifies the Distributor about the change of location within the Distributor’s territory. The Retailer accepts the change of location. The Consumer then contacts the Retailer to cancel the move.



Flow:

Consumer contacts Distributor with a Change Location (Move) request inside the current Distributor’s territory.

1. Distributor sends a Change Consumer Location Request to the Retailer after verifying change location information with Consumer.
2. Retailer accepts the Change Consumer Location Request by sending the Distributor a Change Consumer Location Accept.
3. Consumer contacts Retailer to cancel the move.
4. Retailer sends a Status Advice (Change Consumer Location) to the Distributor to indicate that the consumer is not moving.
5. The Distributor sends a Status Advice (Terminate Transfer Request), after verifying the cancellation with Consumer, to inform the Retailer that the move is cancelled.

Rules: None

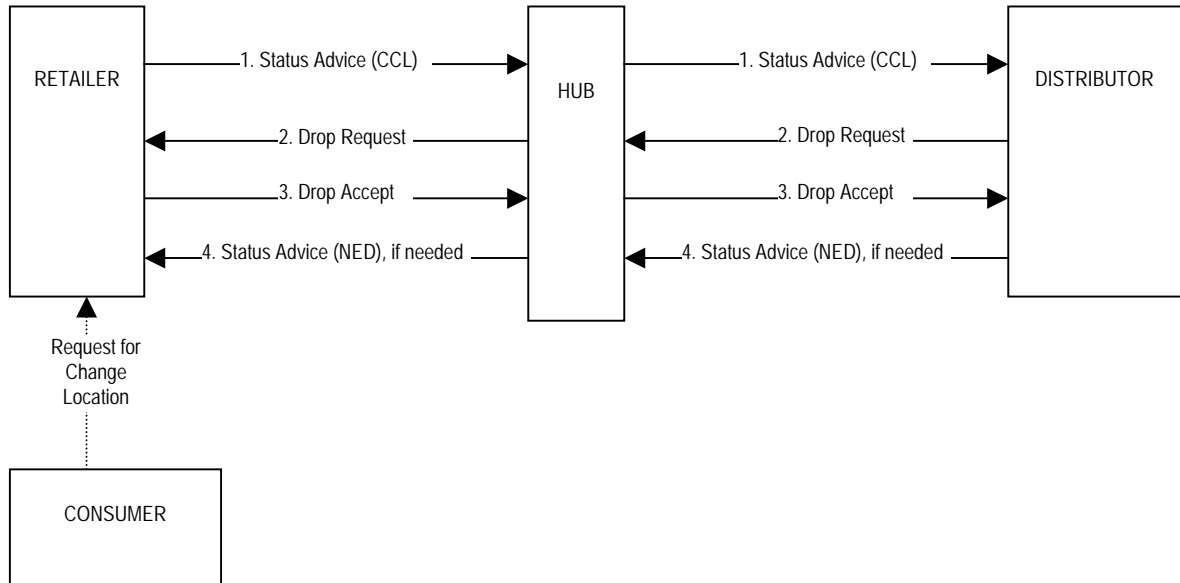
Scenario: Move Outside Distributor Territory

If the Consumer is moving outside the Distributor’s service territory, the Distributor will arrange to finalize the Consumer’s account, and notify the Retailer by means of a Drop Request.

When the Consumer is moving outside the Distributor’s territory and there is a pending Retailer, a Drop is not valid since the Retailer is only pending. Under these conditions a Status Advice -- Terminate Transfer Request is to be used with a Reason stating that this is due to a move outside the territory.

**TRANSACTION FLOW STR-24:
Change Consumer Location STR**

In this scenario, the Consumer notifies the Retailer of the change of location outside the Distributor’s territory.



Flow:

Consumer contacts the Retailer with a request to change location (move) outside of the current Distributor’s territory.

1. Retailer sends a Status Advice (Consumer Change Location) to the Distributor notifying them of the Consumer’s request to move.
2. Distributor sends a Drop Request to the Retailer after verifying change location information with the Consumer.
3. Retailer sends the Distributor a Drop Accept. The Drop Request in this case (Consumer moving outside of the territory) can only be rejected if the validation fails. The Retailer must accept the drop and enrol the Consumer with the new Distributor in the new territory.
4. A Status Advice with a new Drop effective date will be sent if the move/drop date changes from the original effective date sent in the Drop Request.

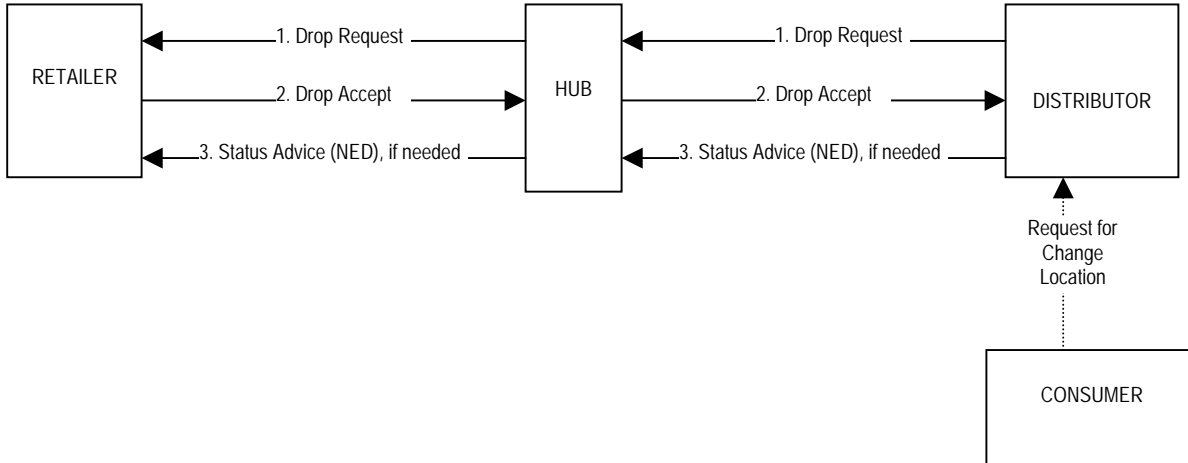
Rules: None

Exceptions: None

Roles and Responsibilities: None

**TRANSACTION FLOW STR-25:
Change Consumer Location STR**

In this scenario, the Consumer notifies the Distributor of the change of location outside the Distributor’s territory.



Flow:

Consumer contacts the Distributor with a request to change location (move) outside of the current Distributor’s territory.

1. Distributor sends a Drop Request to the Retailer after verifying change location information with the Consumer.
2. Retailer sends the Distributor a Drop Accept. The Drop Request in this case (Consumer moving outside of the territory) can only be rejected if the validation fails. The Retailer must accept the drop and enrol the Consumer with the new Distributor in the new territory.
3. A Status Advice with a new Drop effective date will be sent if the move/drop date changes from the original effective date sent in the Drop Request.

Rules: None

Exceptions: None

Roles and Responsibilities: None

Notification of a Move after the Move Has Taken Place

In the case where the Consumer moves out and notifies the Distributor after the fact, the Distributor should treat the situation as if a mistake was made in the Usage transaction. Even though any consumption and demand amounts reported may have been correct, the Usage transaction itself was not correct in that it should have been sent as a final Usage. The Distributor should cancel and re-issue the Usage. The Distributor and Retailer

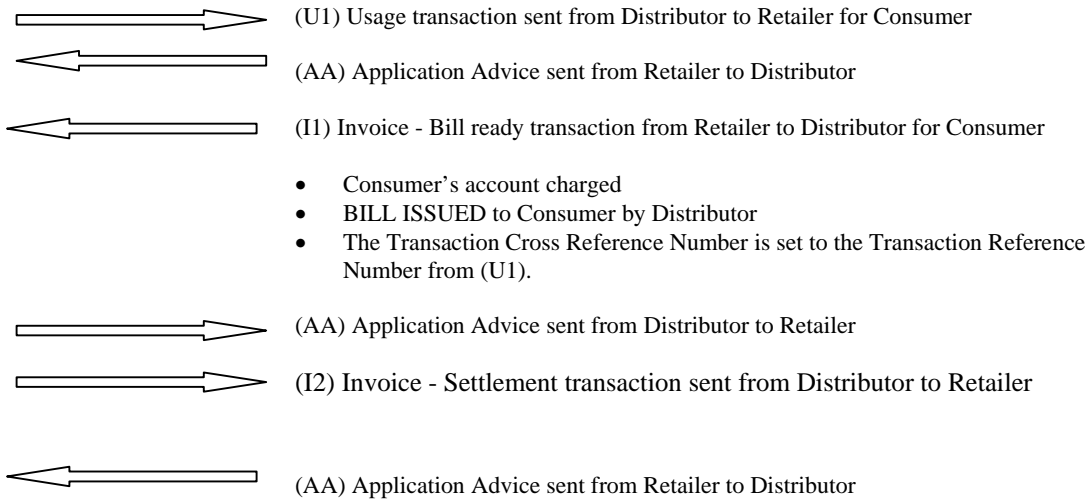
should then further recover in a manner identical to that occurring when a misread of a meter takes place.

Note that if the utility discovers the error after the final bill is due, the onus is on the Retailer to follow-up with the Consumer. The Distributor keeps the Retailer whole for the amount billed up to the date of the final bill. After the final bill due date, the Distributor will not collect for the Retailer.

Distributor Consolidated Bill Ready account where the Consumer moves out without notifying any party:

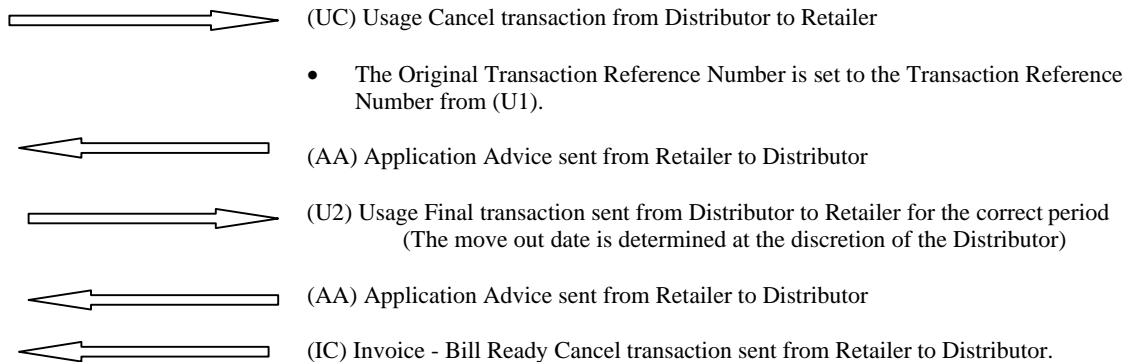
- Step 1) Consumer-A moves out.
- Step 2) Consumer-B moves in.
- Step 3) The Consumer's meter is read.

EBT Transactions:



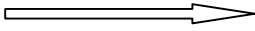
Step 4) The Distributor discovers that Consumer-A is no longer responsible for the meter

EBT Transactions:

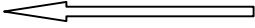


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- Consumer's charge in (I1) is reversed.
- The Original Transaction Reference Number is set to the Transaction Reference Number from (I1).
- The Transaction Cross Reference Number is set to the Transaction Reference Number from (U1).

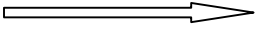


(AA) Application Advice sent from Distributor to Retailer

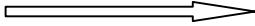


(I3) Invoice - Bill ready transaction sent from Retailer to Distributor
(Note: This can occur immediately or on next bill cycle)

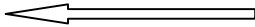
- The Consumer's account charged for new Distributor non-commodity amounts
- If the move out was discovered before the due date of the previous bill, the Consumer's account is also charged for the new commodity amounts from the Retailer. (If the move out was discovered after the due date of the previous bill, the Retailer is responsible for collecting these amounts.)
- Retailer account is credited with corrected amount
- BILL ISSUED to Consumer by Distributor. This Consumer bill will sum all adjustments, payments and new charges for a net invoice amount.
- The Transaction Cross Reference Number is set to the Transaction Reference Number from (U2).



(AA) Application Advice sent from Distributor to Retailer



(I4) Invoice - Settlement transaction sent from Distributor to Retailer for corrected amount.



(AA) Application Advice sent from Retailer to Distributor

5.1.6 STR – Drop

Definition

The drop transaction is the opposite of an enrol transaction. It is used to terminate a billable enrolment between a Consumer and a current Retailer at the next scheduled meter read or at a specified meter read.

Flow

Can occur as a result of a Consumer request to the Retailer or the Distributor to drop to Standard Supply Service; as a result of a request by the Retailer to drop the Consumer; or as a result of a move by the Consumer outside of the Distributor's territory. The drop flows for these scenarios are STR-26, STR-27, and STR-28 respectively.

Rules

Scenario: Consumer Drops Retailer

If a Consumer desires to drop a Retailer through a means other than enrolling with a new Retailer, the Consumer may inform the Distributor or the Retailer. If the Consumer informs the Retailer directly, the Retailer will send a Drop Request transaction to the Distributor. If the Consumer informs the Distributor directly to drop a Retailer, competitive service will be terminated on the date of the Consumer's next scheduled meter read unless the Consumer requests a specified read. The Distributor will automatically move the Consumer to Standard Supply Service based on an actual read and bill the Consumer the appropriate fee (if specified read). See Transaction Flow STR-26 for details.

Scenario: Retailer Drops Consumer

The Retailer, after complying with any applicable notification period, notifies the Distributor to discontinue competitive service for a Consumer. The general rule is that the termination will be made to coincide with the Consumer's normal cycle meter-read date. If the Retailer desires to drop the Consumer off-cycle, the Distributor will send a Confirm Drop transaction to the Retailer, indicating the predicted off-cycle drop date. The Distributor will automatically move the Consumer to Standard Supply Service based on an actual read, and bill the Retailer the appropriate fee. The Retailer will be sent final Consumer Usage or Consumer Billing and Usage Information transaction at the time of billing to allow the completion of the Consumer accounting process. After that date, the Consumer will automatically receive Standard Supply Service until they enrol with a new Retailer. See flow STR-27 for details.

Scenario: Consumer Notifies Distributor of a Move After Usage Has Been Sent

In the scenario in which:

- a Distributor is notified by the Consumer of a move out after a Usage transaction has been sent to the Retailer; and
- both the service period and consumption provided in that Usage transaction are correct; then

the Distributor shall issue a Drop transaction to the Retailer with a Read Indicator of “LastActualRead” or “SpecifiedRead”. The Specified Meter Read Date field will be populated with the service period end date of the previously received Usage.

Under the conditions above, it is not necessary to cancel the previously sent Usage and reissue with a UsagePurpose value of “AccountFinal”, however the cancel re-bill process remains an option for a Distributor.

Effective Date of a Drop Request

Currently, when a Drop Request is issued, it is the responsibility of the respondent to provide the Effective Date of the Drop within the Drop Accept EBT. The Distributor is in control of the billing / meter reading cycle, so when the Distributor is the issuer of the Drop Request with an identified Read Indicator of “NextScheduledRead”, Retailers are required to provide their “best guess” for the Effective Date. The Effective Date provided by the Retailer in the Drop Accept EBT can be based on:

- a meter reading schedule provided by the Distributor;
- estimation of the next possible read date from previously read periods; or
- other methods where not enough or inconsistent data is present.

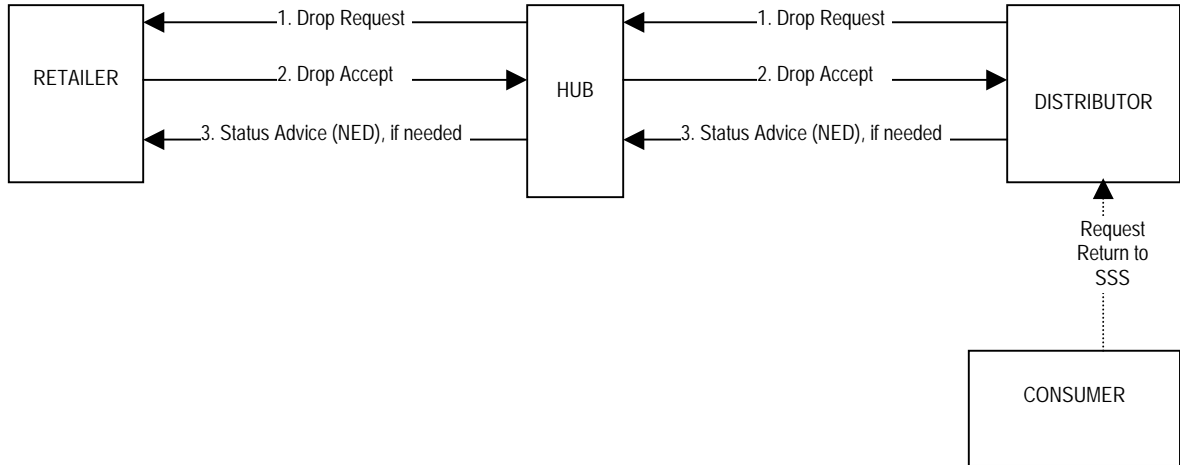
As the Retailer is not in control of any changes to the billing / meter reading cycle and may not have received from the Consumer the same information as the Distributor has received regarding actual final read date requirements, this information needs to be provided by the Distributor.

The SpecifiedMeterReadDate is now mandatory. The date provided depends on the ReadIndicator used and which Market Participant is initiating the request, as follows:

ReadIndicator	SpecifiedMeterReadDate Distributor Provided to Retailer	SpecifiedMeterReadDate Retailer provided to Distributor
NextScheduledRead or OnCycle	Expected Effective Date of the drop - Retailer will use	A properly formatted date value - Distributor will ignore
SpecifiedRead	Special meter read date, indicating the effective date of the drop - Retailer will use	Special meter read date, indicating the effective date of the drop - Distributor will use
LastActualRead	Last meter read date, indicating the effective date of the drop - Retailer will use	Last meter read date, indicating the effective date of the drop - Distributor will use as per Retail Settlement Code

TRANSACTION FLOW STR-26: Drop STR

In this scenario, the Consumer contacts the Distributor to drop the Retailer and go to Standard Supply Service.



Flow:

Consumer notifies Distributor of request to return to Standard Supply Service.

1. Distributor sends Drop Request to Retailer. The Drop Read Date must be scheduled for at least 10 days out.
2. Retailer sends Drop Accept to Distributor. Retailer can only reject a Drop Request to SSS for invalid match criteria.
3. Distributor sends a Status Advice if the effective date is modified from the original effective date in the Drop Request.

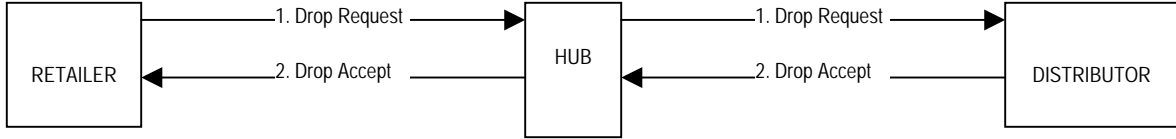
Rules: None

Exceptions: None

Roles and Responsibilities: None

**TRANSACTION FLOW STR-27:
Drop STR**

In this scenario, the Retailer requests Drop of the Consumer.



Flow:

1. Retailer sends Drop Request to Distributor. There is no 10 day waiting period for a drop if it is submitted by the Retailer.
2. Distributor sends Drop Accept to Retailer. Distributor can only reject a Drop Request to SSS for invalid match criteria.

Rules:

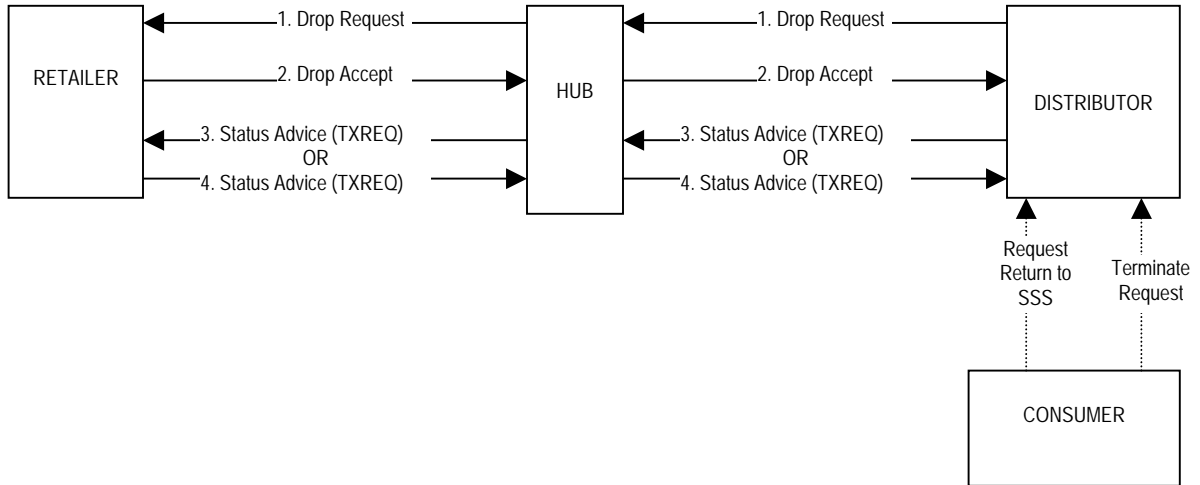
- Retailer may request a specified meter read for the drop. This will be charged to the Retailer.

Exceptions: None

Roles and Responsibilities: None

TRANSACTION FLOW STR-28: Drop STR

In this scenario, the Consumer requests Drop to Standard Supply Service by contacting the Distributor, then cancels the Return to Standard Supply Service.



Flow:

1. Consumer notifies Distributor of request to return to Standard Supply Service.
2. Distributor sends Drop Request to Retailer. The Drop Read Date must be scheduled for at least 10 days out.
3. Retailer sends Drop Accept to Distributor. Retailer can only reject a Drop Request to SSS for invalid match on criteria.
4. Consumer notifies Distributor that they wish to remain with the Retailer. Distributor sends a Status Advice (Terminate Transfer Request) advising Retailer of cancellation of the drop.
OR
Consumer may also contact the Retailer to cancel the drop to SSS. In this case, the Retailer will send the Status Advice (Terminate Transfer Request) to Distributor.

Rules: The Drop request can be rescinded if a Status Advice (TXREQ) is received during the 10 day period between the Drop request and when the meter is read. If the Consumer notifies the Retailer, the Retailer will send a Status Advice (TXREQ) to terminate the drop. If the Consumer notifies the Distributor, the Distributor will send the Status Advice (TXREQ) to the Retailer to notify them. To cancel the Drop request after the 10 day period, the Consumer must re-enrol with the Retailer.

Exceptions: None

Roles and Responsibilities: None

5.2 Meter Data Transactions

The Meter Data Transaction (MDT) is the XML document used by the Distributor to communicate meter-detail information, and consumption and demand data to the Retailer. There are three MDT schemas (XML formats) defined for use in the Ontario EBT Open Market. While each MDT contains general Consumer account- and summary-level information, i.e. account number, address information, service-specific information; each MDT contains specific information for its particular function. The three MDTs are:

- Usage
- Meter Maintenance
- Historical Usage Accept

The following sections describe each MDT in detail.

5.2.1 Usage Transaction

Definition

The Usage Transaction conveys information concerning the usage (multiplied consumption, and demand) of electricity by the Consumer from the Distributor to the Retailer. This information includes data from both metered services and unmetered services. Typically the Usage Transaction is used to deliver meter read data to the Retailer.

Flow

The Distributor generates the Usage Transaction and sends it to the Retailer. The Retailer responds with an Application Advice Accept or Reject (AA) indicating acceptance or rejection, at the application level, of the transaction. See flow MDT-1 for details.

The Usage Transaction “purpose of transaction” option allows the Distributor to:

- Send original transactions
- Send replacement transactions if one or more data errors were discovered after transmission
- Send cancel transactions.
- Send a final transaction.

General Description of the Data

The Distributor issues a Usage Transaction according to its meter read schedule. The specific data contained in the transaction depends on the services for the Consumer account. Typically, there are two categories of services related to the Usage Transaction: metered and unmetered. Usage for unmetered services, e.g. streetlights, traffic lights,

area lights, etc., is reported as kWh and is estimated based on the device-specific consumption rate and the number of units for the service. Usage for metered services is reported as kWh, kW, kVA, etc., and is based on actual or estimated meter reads and demands.

For all transactions, when presenting energy, it is to be loss adjusted. When presenting demand, it is to be sent without an adjustment for loss. As a universal rule, any value presented within an EBT transaction with a unit of measure equal to 'kWh', 'kVAh' or 'kVArh' is to be adjusted using the total loss factor. Those values with a unit of measure equal to 'kW', 'kVA' or 'kVAh' are not to be loss adjusted. The Distribution Loss Factor (DLF) is mandatory (i.e. DLF cannot be presented outside the EBT system)

If data is missing from a usage transaction, or if there are gaps in the dates of a usage transaction, then the Distributor is showing that the meter was installed at the service site but turned off, installed at the service site but not connected, or variations on this.

To clarify the interpretation of the XML Names "Service Period" "Begin Date/Time" and "End Date/Time", the start of the day is represented in XML transactions by 00:00 and the end of the day is represented in XML transactions by 23:59. Start dates/times indicate the beginning of the time period. End dates/times indicate the end of the time period. The convention for both interval and non-interval meters is the same.

- Example of the service period for an *interval meter* for all samples for the day of May 16, 2002:
 - BeginDate is 200205160000ES
 - EndDate is 200205162359ES
 - 24 one hour samples of data
- Example of the service period for a *non-interval meter* for the entire month of May 2002:
 - BeginDate is 200205010000ES
 - EndDate is 200205312359ES
 - One single piece of data
- Example of the service period for an *interval meter for samples* for the time starting 4:00pm June 11, 2002 and ending at 10:00am June 12, 2002:
 - BeginDate is 200206111600ES
 - EndDate is 200206120959ES
 - 18 one hour samples of data
- Example of the service period for an *interval meter for samples* for the time starting 4:00pm June 11, 2002 and ending at 5:00pm June 11, 2002:
 - BeginDate is 200206111600ES
 - EndDate is 200206111659ES
 - 1 one hour sample of data

The XML tag "MeasurementSignificance", when set to "Total", can be used to indicate total consumption (kWh) across the entire service period specified in the transaction. It is especially relevant for interval meter reads, and may be of some convenience for those who wish to check that all intervals were provided. The tag is optional, and is at the

discretion of the Distributor if it wishes to present it. The data value that the tag “MeasurementSignificance” is describing is not to be included in any calculations; it is to be used to describe the Usage data values in the transaction. The value “Total” may be provided at most only once within a “MeasurementData” element and used only to describe kWh, i.e. a given “MeasurementData” element may not contain more than one “UsageData” with a “MeasurementSignificance” of “Total”. Additionally, it is recommended (even if not enforceable via XML schemas, but for the sake of consistency where possible) that if a “UsageData” is provided as a “Total”, it should be listed as the last “UsageData” element.

Response

The Retailer responds to a Usage Transaction with an Application Advice Accept or Reject (AA) indicating acceptance or rejection of the data.

Rules

The following rules apply to the Usage Transaction:

- The Usage Transaction must be sent to the Retailer before noon of the fourth business day after the scheduled meter read date.
- The AA response to the Usage Transaction must be returned back to the Distributor no later than two business days after the Retailer receives the Usage Transaction.
- The Distributor will send any weekly (typically interval) usage data with the BillRequired field set to ‘no’. The Retailer will not create an IBR transaction based on this data.
- At the end of the billing period, the Distributor will send a message containing the full set of usage information with the BillRequired field set to ‘yes’. The BillRequired field being set to ‘yes’ indicates to the Retailer that an invoice transaction should be created for this data. This usage data includes any data sent previously during the billing period when the BillRequired field was set to ‘no’. This usage transaction also includes both interval and non-interval metering data.
- Only one Usage transaction for billing purposes (BillRequired field set to ‘yes’) may be provided for a given service period for a given service/services. For further clarity, the Distributor will provide one Usage for the service period for a Consumer account or service(s) to be billed. Usage transactions are not cumulative. A Distributor may not send multiple Usages for the same service period and same service, regardless of the type of read (actual or estimate) or service (metered/un-metered).
- In the event that the Usage has been sent to the Retailer and not rejected, and must be revised or replaced, a Usage Cancel transaction must be transmitted to the Retailer, followed by a revised Usage transaction for that same service period. It is not valid to send the replacement Usage transaction without first cancelling the original Usage transaction being replaced.
- When cancelling usage data, the Usage Cancel transaction is constructed from a copy of the Usage transaction being cancelled but includes a Usage Purpose of “Cancel”. However in order to reduce the amount of unused data being sent, the Distributor may optionally send the Usage Cancel stripped of the original Usage Data. Omitting the

original Usage Data has a significant advantage when cancelling interval meter data, which tends to be quite large. The remainder of the Usage Cancel transaction must contain all other data that was present in the original Usage transaction

Definitions for the UsagePurpose Data Field:

UsagePurpose - communicates the disposition of the Consumer account for the given Usage transaction as it pertains to the Retailer. Definitions of the associated values are as follows:

Original – identifies to the current Retailer that the given Usage transaction may be the first Usage being received for a Consumer account or for a service period that is not the final service period.

AccountFinal – identifies to the current Retailer that the Usage transaction is the final billable Usage to be received by the Retailer for a Consumer’s account as it pertains to that Retailer.

The value of “AccountFinal” is to be populated in the last Usage transaction sent to the current Retailer as identified in the conditional logic scenarios – specifically:

- For when a Consumer switches to an alternative Retailer
- For when a Consumer switches to standard supply service
- For when a Consumer moves out of territory
- For when a Consumer moves “in territory”, the Usage with the “AccountFinal” value will be issued for the move out premise location

Cancel – identifies to the current Retailer that a previously received Usage transaction as referenced within the transaction by the “Original Transaction Reference Number” is now in a cancelled disposition.

Use of the UsagePurpose Field:

The EBT Standards and the RSC identify the responsibility to communicate the disposition of a Consumer’s account for the current Retailer is with the Distributor. The guiding principle for use of the values in the UsagePurpose data field are to communicate the disposition/status of a Consumer’s account as it pertains specifically to the Retailer regardless of the end status in the Distributor’s CIS. The following logic scenarios shall be applied to communicate the disposition of an account as it pertains to the Retailer’s service:

1. If the Usage transaction represents either the first or ongoing Usage for a Consumer account prior to a final Usage then the value in the UsagePurpose data field would be “Original”.

2. If the usage transaction represents both the first and final Usage for a Consumer account then the value in the UsagePurpose data field will be “AccountFinal”.
3. If the Usage transaction represents the final Usage to be received by the Retailer for a Consumer account then the value in the UsagePurpose data field will be “AccountFinal”.
4. If the Usage represents either a new meter being added or retired to a Consumer account then the disposition of the meter will be identified in the UsageIndicator data field as defined in the schemas and IG’s.

Note:

In the scenario in which:

- A Distributor is notified by the Consumer of a move out after a Usage transaction has been sent to the Retailer; and
- Both the service period and consumption provided in that Usage transaction are correct; then

the Distributor shall issue a Drop transaction to the Retailer with a ReadIndicator of “LastActualRead” or “SpecifiedRead”. The Specified Meter Read Date field will be populated with the service period end date of the previously received usage.

Under the conditions above, it is not necessary to cancel the previously sent Usage and reissue with a UsagePurpose value of “AccountFinal”; however, the cancel re-bill process remains an option for a Distributor.

Account Numbers and Premises:

The term “Account” refers to the Distributor Consumer Account Number and the premise to which it refers.

Where a Distributor does not change the Consumer’s account number in the event of a move within territory, then:

- The final Usage to be sent to the Retailer for the old premise (move-out location) must have the UsagePurpose field populated with the value ‘AccountFinal’; and
- The first and further Usage transactions sent to the Retailer for the new premise (move in location) must have the UsagePurpose field populated with the value ‘Original’.

Typical Application Codes

Typical application codes that can be returned in the AA response are:

- All OK.

- Metered Service is not found – the Retailer has no record of the metered service that was sent in the Usage Transaction.
- Unmetered Service is not found – the Retailer has no record of the unmetered service that was sent in the Usage Transaction.

Meter Change Notification

Since the Meter Maintenance transaction is optional, and most market participants are not using it, the only current method by which to notify Retailers of a change in meter is by means of the Usage transaction. The Usage transaction contains two fields to be used for this purpose - the 'Old Meter Number' field and the 'Meter Switch Date' field.

In the event that a Distributor changes a meter for a given Consumer, the Retailer should be notified upon issuance of the first Usage transaction that follows the meter change-out. The Usage transaction should be populated with the Old Meter Number and Meter Switch Date, in addition to the new meter number and consumption.

For the purposes of illustration:

Current meter number – 123

New meter number – 456

Utility Switch Date – August 11th.

The Usage transaction covering the period of August 1-31, 2002 should provide the following information:

1st Meter:

Meter Number = 123 / Service Period = reflects August 01,2002 0:00-August 10,2002 23:59 / Consumption = 200kWh

2nd Meter

Meter Number =456 / Service Period = reflects August 11,2002 0:00-August 31,2002 23:59 / Consumption = 400 kWh

Old Meter Number =123 / Meter Switch Date = August 11, 2002

The population of the Old Meter Number and Meter Switch Date fields indicates to the Retailer that meter 123 has been retired, and that the Retailer will no longer receive consumption for that meter.

Practices:

This information need only be provided to the Retailer on the first Usage Transaction issued following the meter change-out. It should not be provided on subsequent Usage transactions except as noted in 2, below.

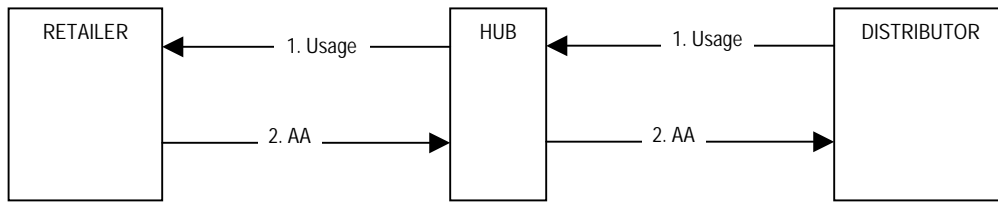
In the event that the Usage Transaction is subsequently cancelled, then the Usage transaction replacing the original for that service period must also be populated with the meter change information.

The Retailer only needs to be notified if the meter change occurred after the Retailer has received a previous Usage transaction for the old meter.

The service period to be captured on the IBR would be the earliest begin date and the latest end date of all the service periods provided in the Usage transaction. In the example above, the service period returned in the IBR would be August 1- August 31.

**TRANSACTION FLOW MTD-1:
Usage**

In this scenario, the Distributor performs the meter read according to the scheduled meter read date for the account.



Flow:

1. Distributor reads the metered service and sends usage to the Retailer no later than noon of the fourth business day following the scheduled meter read date.
2. Retailer returns an AA response within two business days.

5.2.2 Meter Maintenance Transaction

Definition

The Meter Maintenance Transaction conveys general, descriptive information pertaining to the services for a Consumer’s account, e.g. for metered services, meter type, meter manufacturer name, meter serial number, etc.; for unmetered services, service type (e.g. streetlights), number of units, service identification number. This transaction can be issued as a response to a Meter Information STR from a Retailer, or initiated by the Distributor to notify the Retailer of a change to a service’s information, e.g. completion of a meter service request, meter re-seal. The Retailer should request the meter information, in conjunction with a request for historical usage, if it hasn’t been previously requested. The Meter Maintenance Transaction does not contain usage. See the sections on Meter Information STRs and Historical Usage Accept Transaction for details. Typically, the Meter Maintenance Transaction would be issued as part of service startup, or when a meter has been swapped out.

From time to time a meter at a Consumer location may be replaced by a new one at the request of the Consumer, or re-sealed as the result of the standard inspection process required every six years for all meters. The former scenario can be a response to a STR from the Retailer or initiated by the Distributor. Only the Distributor initiates the re-seal scenario. The Meter Maintenance Transaction conveys the information on the new or re-sealed meter to the Retailer.

Requests for changes to an unmetered account are to be handled offline using a process outside the EBT system.

Flow

The Distributor generates the Meter Maintenance Transaction and sends it to the Retailer. The Retailer responds with an Application Advice (AA) indicating acceptance or rejection, at the application level, of the transaction. See flows MDT-2, MDT-3, MDT-4 and MDT-5 for details.

The Meter Maintenance Transaction “purpose of transaction” option allows the Distributor to:

- Send original transactions
- Send replacement transactions if one or more data errors were discovered after transmission
- Send duplicate transactions

General Description of the Data

The Meter Maintenance Transaction conveys general, descriptive information pertaining to the services for a Consumer’s account, e.g. for metered services, meter type, meter manufacturer name, meter serial number, etc.; for unmetered services, service type (e.g. streetlights), number of units, service identification number.

Response

The Retailer responds to a Meter Maintenance Transaction with an Application Advice (AA) indicating acceptance or rejection of the data.

Rules

The following rules apply to the Meter Maintenance Transaction:

- Requests for changes to unmetered services on an account are not handled by the EBT. Such changes are handled offline in a process to be agreed to by both the Distributor and the Retailer.
- The Meter Maintenance Transaction must be sent to the Retailer before noon of the fourth business day.
- The AA response to the Meter Maintenance Transaction must be returned back to the Distributor no later than two business days after the Retailer receives the Meter Maintenance Transaction.

Typical Application Codes

Typical application codes that can be returned in the AA are:

- All OK.
- Metered Service is not found – the Retailer has no record of the metered service that was sent in the Meter Maintenance Transaction.

- Unmetered Service is not found – the Retailer has no record of the unmetered service that was sent in the Meter Maintenance Transaction.
- Metered Service is already enrolled – the Retailer already has enrolled the metered service that was sent in the Meter Maintenance Transaction. The Retailer is expecting a Usage Transaction, but not a Meter Maintenance Transaction.
- Unmetered Service is already enrolled – the Retailer has no record of the unmetered service that was sent in the Meter Maintenance Transaction. The Retailer is expecting a Usage Transaction, but not a Meter Maintenance Transaction.

The following diagrams show the basic transaction flows for the Ontario EBT Standard for Meter Maintenance transactions. Meter Maintenance transactions are used to convey detailed information on meters and unmetered services. This information is delivered as a result of a change in the meter, power beginning to flow after a new enrolment or if current information was requested by a Retailer.

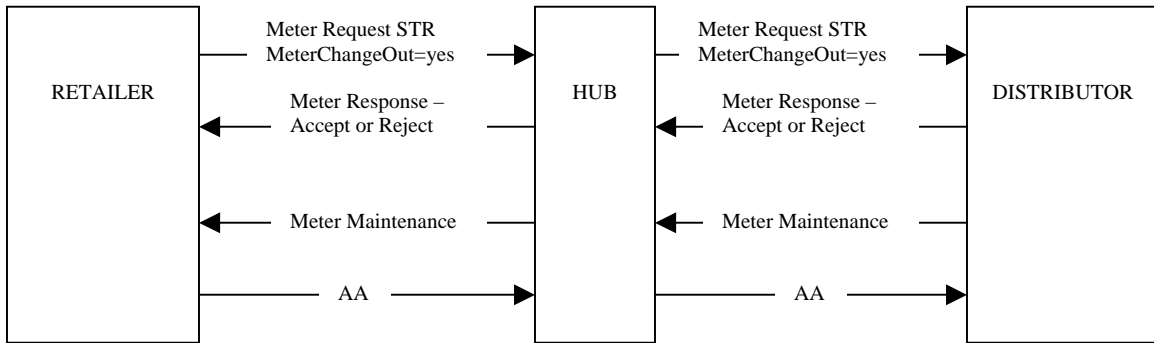
There are four basic scenarios that take place using meter maintenance. These scenarios are:

- A meter change request from the Retailer (a meter being exchanged);
- A meter change notification from the Distributor (a meter being added, removed, exchanged, turned on, turned off or its configuration being changed);
- A meter information request from the Retailer; and
- An initial read notification from the Distributor.

TRANSACTION FLOW MTD-2 Meter Change Request from the Retailer

In this scenario, a Retailer requests the Distributor to change the Consumer's meter. Most likely it is a request to upgrade the Consumer's meter to an interval meter as part of signing up the Consumer. The request to change the meter is sent out and a response is returned indicating when the change will take place. When the meter has been changed, the Distributor will send the Retailer the maintenance data on the new meter.

The Retailer can only request a change of meter using this process. New meters being added and old meters being removed are not permitted using this process.



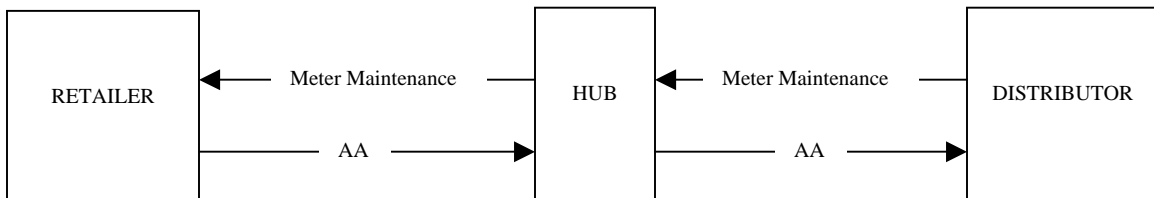
Flow:

1. The Retailer requests to change the meter type (Retailer cannot add or remove meters)
2. The Distributor sends the meter response, either accept or reject, when the Distributor has scheduled the meter change
3. The Distributor sends the Meter Maintenance with the new meter info (e.g. serial number and model) once the meter has been changed
4. The Retailer responds with an Application Advice

TRANSACTION FLOW MTD-3 Meter Change Notification from the Distributor

In this scenario, the Distributor changes a Consumer's meter. An example of a reason for this change could be that the Distributor upgraded the meter to an interval meter because the Consumer is now using a lot more electricity than was previously used.

This scenario is also valid for cases where a meter has been added or removed by the Distributor.

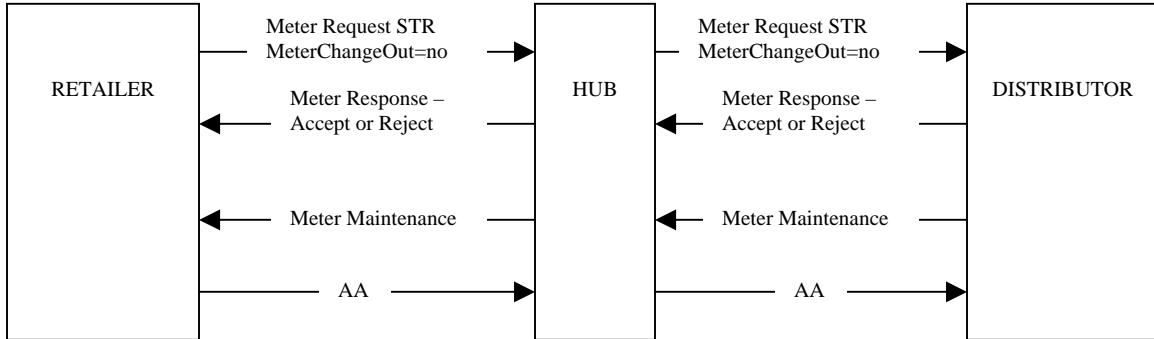


Flow:

1. The Distributor sends the Meter Maintenance with the new meter info (e.g. serial number and model) once the meter has been changed, a new meter was added or a meter was removed
2. The Retailer responds with an Application Advice

TRANSACTION FLOW MTD-4 Meter Information Request from the Retailer

In this scenario, a Retailer requests the Distributor to provide Meter Maintenance data. Typically this is used in the case where a Retailer is in the process of obtaining detailed information about a potential Consumer.

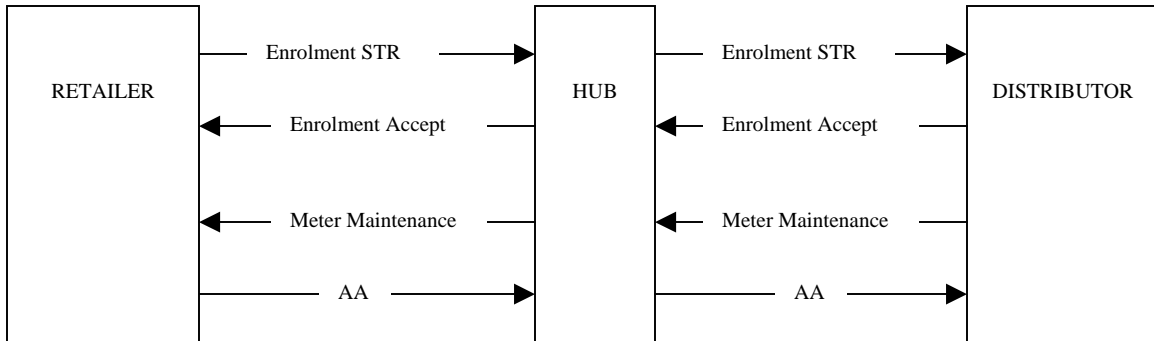


Flow:

1. The Retailer requests information about the meter
2. The Distributor sends the meter response, either accept or reject, to indicate that the request was received
3. The Distributor sends the Meter Maintenance with the information for the meter (e.g. serial number and model) once the meter information has been collected
4. The Retailer responds with an Application Advice

TRANSACTION FLOW MTD-5 Initial Read Notification from the Distributor

In this scenario the Distributor is providing the new Retailer with an indication that the Consumer has been switched to the new Retailer as a result of an enrolment.



Flow:

1. The Retailer requests enrolment of the Consumer (see the Enrol Request STR)
2. The Distributor sends the Enrol Accept to indicate that the Consumer will be switched to the Retailer
3. The Distributor sends the Meter Maintenance with the information for the meter (e.g. serial number and model) or unmetered service once the initial meter read has been completed for the Retailer, and the Retailer is now supplying power to the Consumer
4. The Retailer responds with an Application Advice

5.2.3 Historical Usage Accept Transaction

Definition

The Historical Usage Accept Transaction conveys the history of a Consumer's electricity usage for all services on the account. The Distributor issues this transaction in response to a Historical Usage Request STR by the Retailer. The Retailer may request up to a maximum of the previous 24 billing periods for a service; however, if the service does not have data for the whole period requested, the available data is delivered. Because the amount of data can be quite large with this transaction, the value for the number of requested billing periods field in the originating STR defaults to one.

Flow

The Retailer requests the historical usage for an account by sending a Historical Usage STR to the Distributor. If meter information has not previously been requested, the Retailer needs to request it as a separate STR at the same time as requesting the initial usage history. If the originating requests are accepted, the Distributor responds to the Retailer by sending a Meter Maintenance Transaction and a Historical Usage Accept Transaction. If the Distributor cannot respond to the request, the Distributor sends a Status Advice (SA), indicating the new effective date, the code and reason for the non-response. See Section 5.1.2 Meter Maintenance for responses to a request for meter information. See flows MDT-6 and MDT-7 for details.

General Description of the Data

The Historical Usage Accept Transaction contains all requested and available usage for the metered services and unmetered services, if any, on an account.

For all transactions, when presenting energy, it is to be loss adjusted. When presenting demand, it is to be sent without an adjustment for loss. As a universal rule, any value presented within an EBT transaction with a unit of measure equal to 'kWh', 'kVAh' or 'kVArh' is to be adjusted using the total loss factor. Those values with a unit of measure equal to 'kW', 'kVA' or 'kVAr' are not to be loss adjusted.

The service period covers the begin-date and the end-date of each bracketed group of usage data within a MeasurementData element.

With an interval meter, usage data is at regular intervals and a single MeasurementData element can contain many pieces of usage data. Using the begin-date, the intermediate times for usage data can be deduced from the reported interval length. In this case, only a single service period is required.

With a residential meter, the meter is not always read on the same day each cycle. It is not possible to deduce the reading date for more than one usage data element. In this case, there are many MeasurementData elements and each one should have a separate begin-date and end-date.

Programming tip:

Make the software program conditional on the presence of the element `ReportedIntervalLength`. If the element is present, the single service period can bracket a number of usage data values. If the `ReportedIntervalLength` element is not present, the service period should be explicitly spelled out for each usage data value.

Service Period Times and Dates

To clarify the interpretation of the XML Names “Service Period” “Begin Date/Time” and “End Date/Time”, the start of the day is represented in XML transactions by 00:00 and the end of the day is represented in XML transactions by 23:59. Start dates/times indicate the beginning of the time period. End dates/times indicate the end of the time period. The convention for both interval and non-interval meters is the same.

- Example of the service period for an *interval meter* for all samples for the day of May 16, 2002:
 - BeginDate is 200205160000ES
 - EndDate is 200205162359ES
 - 24 one hour samples of data
- Example of the service period for a *non-interval meter* for the entire month of May 2002:
 - BeginDate is 200205010000ES
 - EndDate is 200205312359ES
 - One single piece of data
- Example of the service period for an *interval meter for samples* for the time starting 4:00pm June 11, 2002 and ending at 10:00am June 12, 2002:
 - BeginDate is 200206111600ES
 - EndDate is 200206120959ES
 - 18 one hour samples of data
- Example of the service period for an *interval meter for samples* for the time starting 4:00pm June 11, 2002 and ending at 5:00pm June 11, 2002:
 - BeginDate is 200206111600ES
 - EndDate is 200206111659ES
 - 1 one hour sample of data

For use of the “MeasurementSignificance” tag, see the description under General Description of the Data heading in section 5.2.1 Usage Transaction.

Response

None

Rules

The following rules apply to the Historical Usage Accept Transaction:

- The request for Historical Usage must be accompanied by the request for Meter Information, if not previously requested, for the same account. See the section on Meter Maintenance Transaction for details on the response to the request for Meter Information.

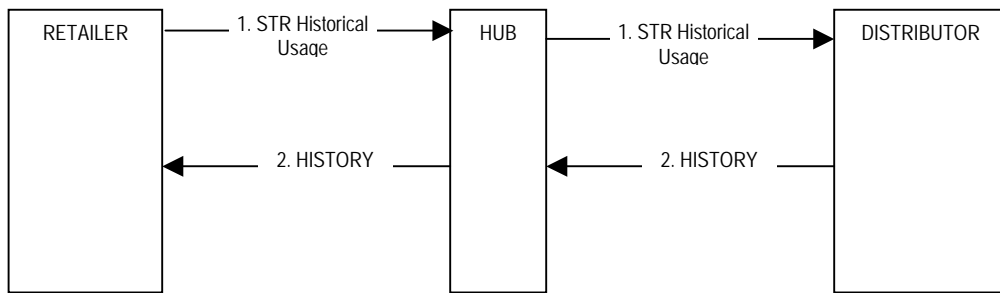
- The Historical Usage Accept Transaction must be sent back to the Retailer within five business days after the Distributor receives the STR request.

Typical Error Codes

The Historical Usage Reject STR handles all errors. See the Section on STRs for details.

**TRANSACTION FLOW MTD-6:
Response to Historical Usage**

In this scenario, the historical usage is available.

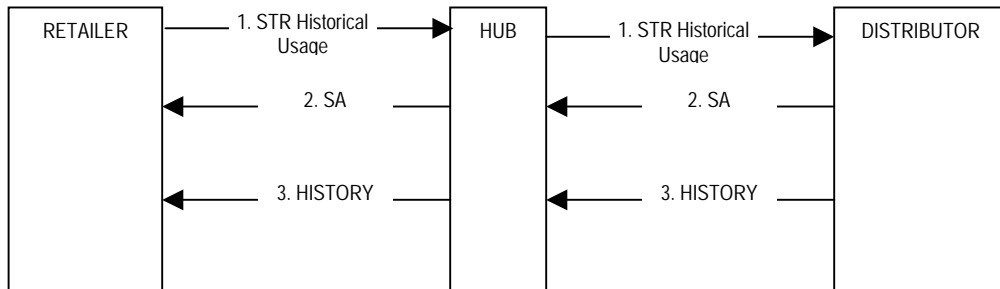


Flow:

1. Retailer submits a request for the Historical Usage.
2. Distributor gathers data and returns the Historical Usage data to the Retailer within five business days following receipt of the request.

**TRANSACTION FLOW MTD-7:
Response to Historical Usage and Meter Information Requests with Status Advice**

In this scenario, the historical usage is not immediately available.



Flow:

1. Retailer submits a request for the Historical Usage.
2. Distributor cannot send Historical Usage data, so sends a Status Advice (SA) with new effective date.
3. Distributor gathers data and sends Historical Usage Accept Transaction to the Retailer within five business days.

5.3 Invoice Transactions

There are five types of Consumer Billing Options that are specified in the Retail Settlement Code:

- Split Billing
- Distributor Consolidated Billing – Bill Ready
- Distributor Consolidated Billing – Rate Ready
- Retailer Consolidated Billing - Bill Ready
- Retailer Consolidated Billing – Rate Ready

The Consumer and Retailer will determine the selection of a billing option. The Retailer will then notify the Distributor of the desired billing option. The OEB has recommended that Distributor Consolidated “bill ready” option be offered as a mandatory service upon request by a Retailer. A Distributor may provide “rate ready” billing as an optional service and, upon request from a Retailer, shall make a good faith effort to provide “rate ready” billing.

There are two types of Trading Partner Invoices that are specified in the Retail Settlement Code:

- Settlement Invoice
 - Total
 - Detail
- Market Participant Invoice

5.3.1 Invoice – Split Billing

Definition/purpose

The Distributor and Retailer both bill the Consumer for their portion of the Invoice. The Consumer receives two Invoices in this billing scenario. This billing option is the simplest in terms of coordination, process steps and data exchange requirements between the Retailer and Distributor. The Split Bill requires the exchange of Consumer meter data from the Distributor to the Retailer via a Usage MDT. Refer to the Meter Data Transaction sections of this document for details on the Usage MDT.

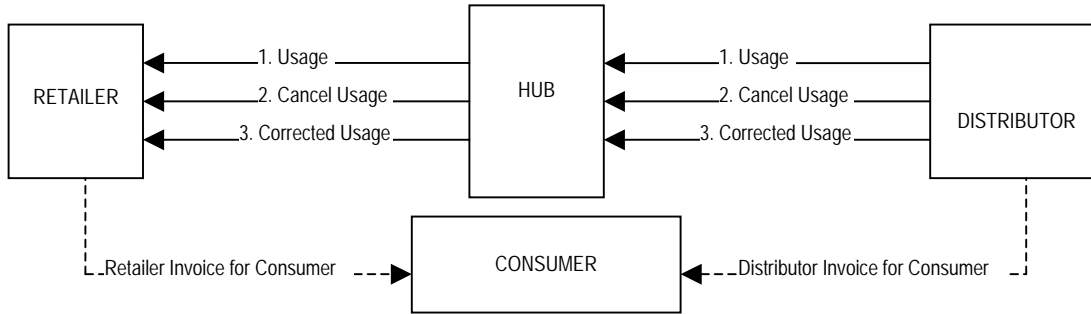
Flow

The Distributor sends the Usage MDT to the Retailer no later than noon of the 4th business day from the scheduled meter read date. The Consumer will receive two bill statements, one from the Retailer for their portion of the service being provided to the Consumer and one from the Distributor for their portion of the service being provided to the Consumer. See flow INV-1 for details.

Billing of Taxes

The billing parties will be responsible for the collection and remittance of all taxes to the government. See Section 5.3.6 Invoice – Settlement under “Billing of Taxes” for further information.

**TRANSACTION FLOW INV-1:
Split Billing Option**



*****Application Advice Accept or Reject must be sent on all above transactions to indicate an accept or reject of the transaction.**

Flow:

1. Distributor sends Usage MDT to Retailer no later than noon of the 4th business day after the scheduled meter read date. The Consumer will receive two bill statements – one from the Retailer for the electric usage commodity and other services and one from the Distributor for all other non-competitive charges.
2. (Conditional) Distributor sends cancelled Usage to Retailer.
3. (Conditional – Only if Step 2 occurs) Distributor sends corrected Usage to Retailer.

Transaction Flows with Examples:

The following transaction-flows outline the procedure used in a typical cycle without an error and a cycle where the Distributor cancelled the usage after sending the bill to the Consumer. Note that the Application Advice transactions have not been shown to simplify the transaction flows.

The following values are used in the examples given within this section. All are based on a scenario where an original usage read was 1000kWh. Later, after the usage was sent to the Retailer, the usage was changed by the Distributor (e.g., either due to an actual meter-read, a new estimate, etc.).

Original consumption/bill

Consumption	Bill Ready Charge	Spot Market Price	Settlement Difference
1000 kWh	\$120	\$100	\$20

Corrected consumption/bill

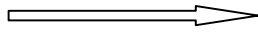
Consumption	Bill Ready Charge	Spot Market Price	Settlement Difference
500	\$60	\$50	\$10

Split Billing account without cancel:

Step 1

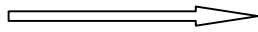
Consumption calculated -1000 kWh based on estimated reading.

EBT Transactions:



(U1) Usage transaction sent from Distributor to Retailer for 1000 kWh
(Spot price of commodity is \$100)

- BILL ISSUED to Consumer by Retailer
- BILL ISSUED to Consumer by Distributor



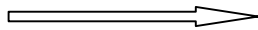
(I1) Invoice Settlement Detail transaction sent from Distributor to Retailer for \$100 (i.e., the Retailer owes the Distributor \$100).

Split Billing account with cancel:

Step 1

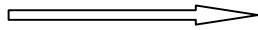
Consumption calculated -1000 kWh based on estimated reading.

EBT Transactions:



(U1) Usage transaction sent from Distributor to Retailer for 1000 kWh
(Spot price of commodity is \$100)

- BILL ISSUED to Consumer by Retailer
- BILL ISSUED to Consumer by Distributor

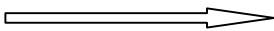


(I1) Invoice Settlement Detail transaction sent from Distributor to Retailer for \$100 (i.e., the Retailer owes the Distributor \$100).

Step 2

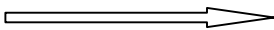
Consumption recalculated – 500 kWh based on actual reading – original usage to be cancelled

EBT Transactions:



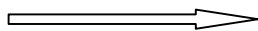
(UC) Cancel usage transaction from Distributor to Retailer for 1000 kWh

- The Original Transaction Reference Number is set to the Transaction Reference Number from (U1).



(U2) Usage transaction sent from Distributor to Retailer for the correct amount of 500 kWh (Spot price of commodity is \$50)

- corrected BILL ISSUED to Consumer by Retailer
- corrected BILL ISSUED to Consumer by Distributor



(I2) Invoice Settlement Detail transaction sent from Distributor to Retailer for minus \$50 (i.e., the Distributor owes the Retailer \$50). It is derived from:

- minus \$100 due to the correction in (UC)
- plus \$50 for the updated quantity presented in (U2)

5.3.2 Invoice – Distributor Bill Ready

Definition/purpose

This bill option is the mandatory bill option that the OEB has chosen. The Retailer sends this transaction to the Distributor. This transaction is used when the Retailer calculates their own charges and the charges print on a Distributor's consolidated bill. The Distributor then sends the complete bill to the Consumer.

Flow

Usage is sent from the Distributor to the Retailer no later than noon of the 4th business day from the scheduled meter read date. The Retailer then calculates the commodity charges based on the contract with the Consumer. The Retailer submits to the Distributor the line item charge(s) to be put on the Consumer's bill no later than two business days after the Usage transaction has been sent. See flow INV-2 for details.

In the event of a cancel/rebill scenario:

- The Distributor initiates a cancel usage transaction to the Retailer.
- The Retailer cancels the original Invoice to the Distributor.
- The Distributor sends the corrected usage to the Retailer.
- The Retailer issues the corrected Invoice to the Distributor (see Cancel/Rebill at the end of the Invoices section for more details).

Response

Once the Distributor receives the Invoice transaction, they send an Application Advice Accept or Reject back to the Retailer stating that the data was either accepted or rejected. This Application Advice Accept or Reject is sent no later than two business days after the receipt of the Invoice transaction from the Retailer.

In Distributor Consolidated Bill Ready situations, if a Distributor receives an Invoice Bill Ready transaction from the Retailer after the Distributor has already sent the bill to the Consumer; the Distributor will reject the transaction. The Retailer, receiving such a reject, will have to combine the line items for the current late month together with the line items for the next month into the Invoice Bill Ready transaction for the next month.

Rules

Only Commodity Charges:

The Retailer can only send commodity charges with one item per line. There is only one Consumer to one Invoice transaction.

One IBR per Usage:

Where the Retailer chooses to send an IBR, only one IBR transaction may be sent in reference to one Usage transaction (BillRequired field set to 'yes'). Multiple IBR transactions may not be sent in reference to a single Usage transaction.

In the event that the IBR has been sent and not rejected, and must be revised or replaced, an IBR Cancel transaction must be sent, followed by a revised IBR transaction for that same service period. It is not valid to send the replacement IBR transaction without first cancelling the original IBR transaction being replaced.

IBR Text for Statutory Rate Consumers:

If a Distributor does not show a DCB Retailer's IBR text at all on the Consumer bill when billing the statutory rate commodity price (4.3 cents or whatever is set from time to time), then the Distributor shall display a Retailer-specified text message, to be no longer than the existing IBR text message (of the length indicated in the relevant service agreement). IBR text shall continue to be displayed in the usual manner for non-statutory rate contracts.

Retailers will provide their desired messages to Distributors at the end of each calendar quarter, with at least three weeks notice.

If no message change is specified, the existing message will carry over.

There are no requirements that this Retailer-specified text message

- include specific reference to the statutory rate, or
- shall appear with the commodity price on the same line,

given that the line item's text is supplied by the Retailer, while the price may be calculated using the statutory rate.

Account/Rate/Service Charges:

An account is described as a specific location that can have multiple meters. A Consumer with multiple locations should have multiple accounts. Within one account there could be multiple meters with different Distributor rates associated with those meters. For example, a location with three meters could have two meters on one rate (residential) and one meter on another rate (water heater time of day).

Based on the above, the following will detail what charges should be used:

Account charges – This field will be used when charges are being applied at an account level regardless of the number of meters or rates associated with that account. (This will be the most common type of charges used by market participants.)

Rate Charges – This field will be used when charges are being applied at a Distributor's rate level rather than account level. While it is rare that Retailers or Distributors would use this type of charge, it is an option that allows for Distributors and Retailers to charge at a rate level rather than an account level.

Service Charges – This field will be used when charges are being applied at a meter level. If there were three meters on an account, there would be three service charges – one for each meter. While it is rare that Retailers or Distributors would use this type of charge, it is an option that allows for Distributors and Retailers to charge at a rate level rather than an account level.

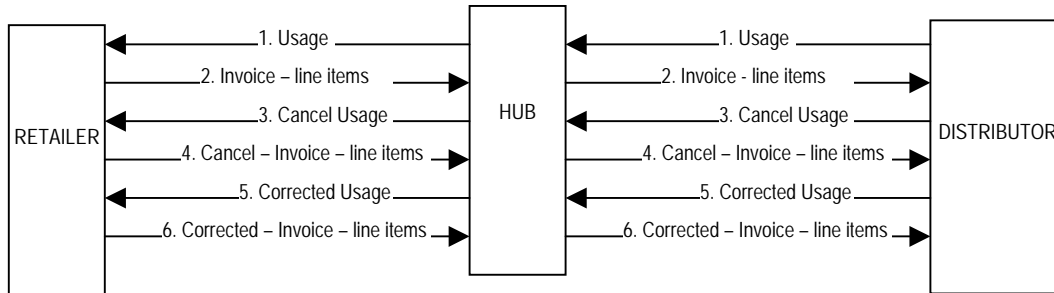
Use of “MeasurementSignificance”:

For use of the “MeasurementSignificance” tag, see the description under General Description of the Data heading in section 5.2.1 Usage Transaction.

Billing of Taxes

The billing party will be responsible for the collection and remittance of all taxes to the government. See Section 5.3.6 Invoice – Settlement under “Billing of Taxes” for further information.

**TRANSACTION FLOW INV-2:
Distributor Bill Ready Billing Option**



*****Application Advice Accept or Reject must be sent on all above transactions to indicate an accept or reject of the transaction.**

Flow:

1. Usage is sent from the Distributor to the Retailer no later than noon of the 4th business day after the scheduled meter read date.
2. The Retailer calculates the commodity charges based on the contract with the Consumer. The Retailer then submits to the Distributor the line item charge(s) to be put on the Consumer’s bill no later than 2 business days after the Usage Transaction has been sent. The Distributor can extend this maximum time limit in their service agreement with the Retailer.
3. (Conditional) Distributor sends cancelled Usage to Retailer.
4. (Conditional) Retailer cancels original Invoice to Distributor.
5. (Conditional – Only if Step 3 occurs) Distributor sends corrected Usage to Retailer.
6. (Conditional – Only if Step 4 occurs) Retailer sends corrected Invoice to Distributor.

The Distributor then sends the Consumer a consolidated bill with both Retailer and Distributor charges on it, by regular mail.

Transaction Flows with Examples:

The following transaction flows outline the procedure used in a typical cycle without an error and a cycle where the Distributor cancelled the usage after sending the bill to the Consumer. Note that the Application Advice transactions have not been shown to simplify the transaction flows.

Additionally presented in a different format is the flow for a Distributor Bill Ready situation where the Distributor cancelled the usage at the following times in the cycle:

- Before the bill was sent to the Consumer;
- After the bill was sent to the Consumer and the revised Invoice Bill Ready transaction was received by the Distributor within the bill window of two business days; and
- After the bill was sent to the Consumer, but the revised Invoice Bill Ready transaction was received by the Distributor outside the bill window of two business days.

Note that after the Distributor issues a Usage transaction, the Retailer has two business days to respond with an Invoice Bill Ready transaction. Invoice transactions after this window may be rejected. Likewise, after the Distributor issues a Usage Cancel transaction, the Retailer has two business days to issue an Invoice Bill Ready Cancel transaction. Cancel Invoice transactions issued after this date may be rejected.

The following values are used in the examples given within this section. All are based on a scenario where an original usage read was 1000kWh. Later after the usage was sent to the Retailer, the usage changed by the Distributor (e.g., either due to an actual meter-read, a new estimate, etc.).

Original consumption/bill

Consumption	Bill Ready Charge	Spot Market Price	Settlement Difference
1000 kWh	\$120	\$100	\$20

Corrected consumption/bill

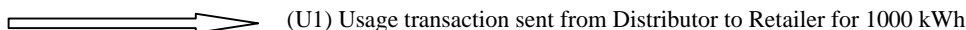
Consumption	Bill Ready Charge	Spot Market Price	Settlement Difference
500	\$60	\$50	\$10

Distributor Consolidated Bill Ready account without cancel:

Step 1

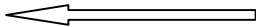
Consumption calculated -1000 kWh based on estimated reading.

EBT Transactions:

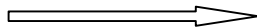


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(Spot price of commodity is \$100)

 (I1) Invoice Bill Ready transaction from Retailer to Distributor for bill ready charge of \$120

- Consumer's account charged \$120
- BILL ISSUED to Consumer by Distributor
- The Transaction Cross Reference Number is set to the Transaction Reference Number from (U1).

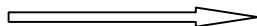
 (I2) Invoice Settlement Detail transaction sent from Distributor to Retailer for minus \$20 (i.e., the Distributor owes the Retailer \$20, \$100 from U1 minus \$120 from I1).

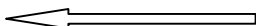
Distributor Consolidated Bill Ready account with cancel:

Step 1

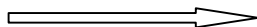
Consumption calculated -1000 kWh based on estimated reading.

EBT Transactions:

 (U1) Usage transaction sent from Distributor to Retailer for 1000 kWh (Spot price of commodity is \$100)

 (I1) Invoice Bill Ready transaction from Retailer to Distributor for bill ready charge of \$120


- Consumer's account charged \$120
- BILL ISSUED to Consumer by Distributor
- The Transaction Cross Reference Number is set to the Transaction Reference Number from (U1).

 (I2) Invoice Settlement Detail transaction sent from Distributor to Retailer for minus \$20 (i.e., the Distributor owes the Retailer \$20, that is \$100 from U1 minus \$120 from I1).

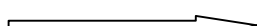
Step 2

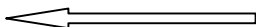
Consumption recalculated – 500 kWh based on actual reading – original usage to be cancelled

EBT Transactions:

 (UC) Cancel usage transaction from Distributor to Retailer for 1000 kWh

- The Original Transaction Reference Number is set to the Transaction Reference Number from (U1).

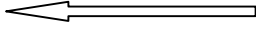
 (U2) Usage transaction sent from Distributor to Retailer for the correct amount of 500 kWh (Spot price of commodity is \$50)

 (IC) Invoice Bill Ready Cancel transaction sent from Retailer to Distributor to cancel charge of \$120.

- Consumer's charge of the original \$120 in (I1) is reversed.

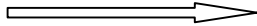
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- The Original Transaction Reference Number is set to the Transaction Reference Number from (I1).
- The Transaction Cross Reference Number is set to the Transaction Reference Number from (U1).



(I3) Invoice Bill Ready transaction sent from Retailer to Distributor for \$60
(Note: This can occur immediately or on next bill cycle)

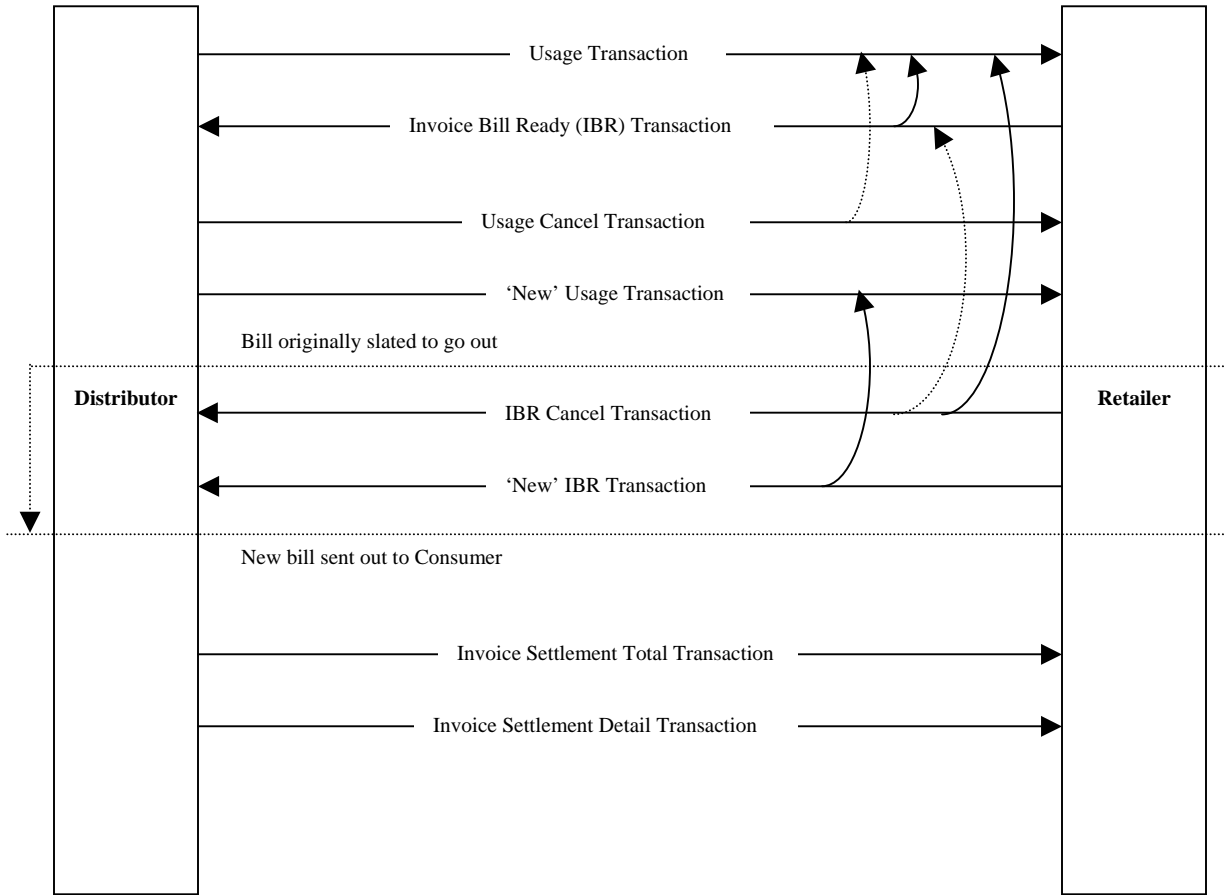
- Consumer's account charged for \$60
- Retailer account is credited with \$10 (\$60 minus the commodity spot price of \$50)
- BILL ISSUED to Consumer by Distributor. This Consumer bill will sum all adjustments, payments and new charges for a net invoice amount.
- The Transaction Cross Reference Number is set to the Transaction Reference Number from (U2).



(I4) Invoice Settlement Detail transaction sent from Distributor to Retailer for \$10 (i.e., the Retailer owes the Distributor \$10). It is derived from:

- minus \$100 due to the correction in (UC)
- plus \$50 for the updated quantity presented in (U2)
- plus \$120 due to the correction in (IC)
- minus \$60 from (I3)

Scenario 1 – Usage cancel transaction before bill to Consumer

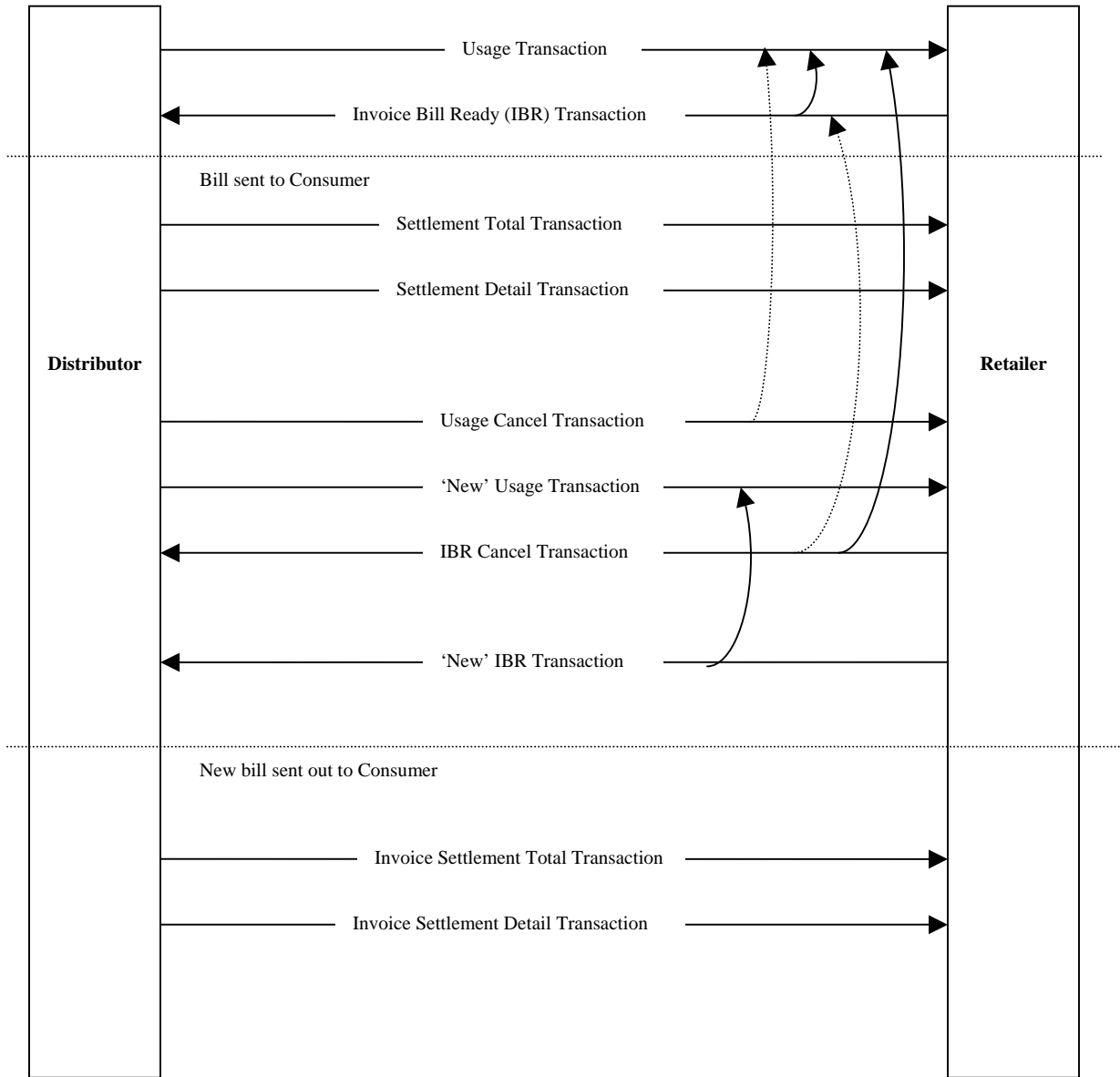


Notes:

1. Cannot cancel or adjust previously released settlement invoices. All adjustments/cancellations are picked up daily as adjustments incorporated in the daily settlement transactions.
2. Also applies to invoice market participants
3. Transaction Cross Reference Number **→**
4. Original Transaction Reference Number **→**

Scenario 2 – Usage cancel transaction after bill to Consumer

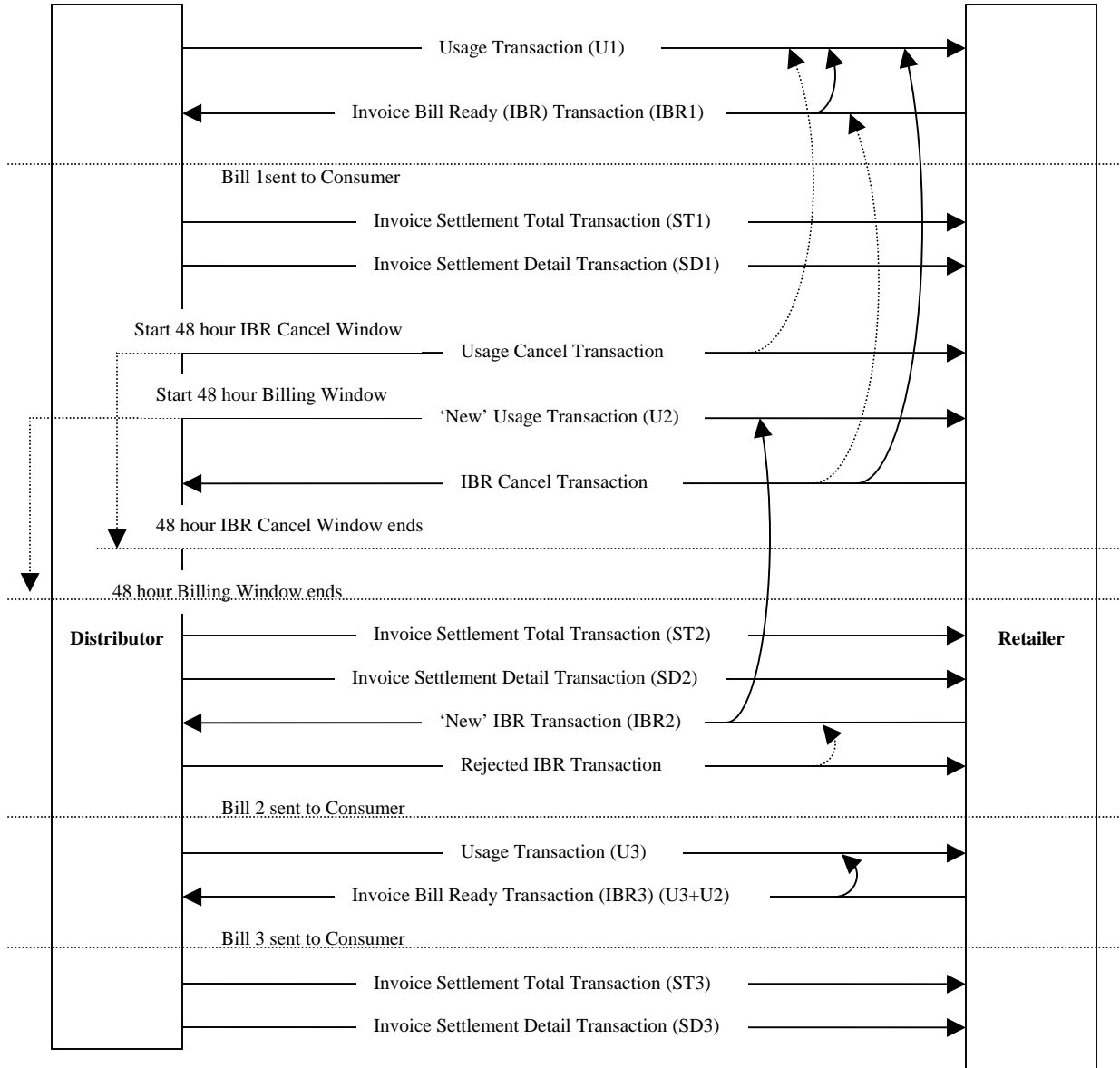
(Note in this case, the IBR Cancel arrives within a two day window that begins with the Usage Cancel transaction)



Notes:

1. Cannot cancel or adjust previously released settlement invoices. All adjustments/cancellations are picked up daily as adjustments incorporated in the daily settlement transactions.
2. Also applies to invoice market participants
3. Transaction Cross Reference Number →
4. Original Transaction Reference Number →

Scenario 3 – Usage cancellation after bill to Consumer, where the revised IBR was received late
 (i.e. the revised IBR was received outside the 48 hour billing window which started with the revised Usage)



Notes:

1. Cannot cancel or adjust previously released settlement invoices. All adjustments/cancellations are picked up daily as adjustments incorporated in the daily settlement transactions.
2. Also applies to invoice market participants
3. The Settlement Detail invoice will have the cost of power being charged to the Retailer for the Consumer for that period, but the offsetting Retailer charge will not appear as it was not received or billed by the Distributor on behalf of the Retailer.

4. Transaction Cross Reference Number
5. Original Transaction Reference Number

5.3.3 Invoice – Distributor Rate Ready

Definition/purpose

The OEB has stated that this bill option is optional and that the Distributor shall make a good faith effort to provide this option. This transaction is used when the Distributor calculates the Retailer charges based on the rates provided by the Retailer. The Consumer receives one bill from the Distributor with both the Distributor and Retailer charges on their bill.

Flow

Usage is sent from the Distributor to the Retailer no later than noon of the 4th business day from the scheduled meter read date. The Distributor then calculates the Retailer's commodity for the bill and sends the line items to the Retailer no later than 12 business days after the usage transaction is sent.

For usage errors, the Distributor initiates a cancel usage transaction to the Retailer. The Distributor then cancels the original Invoice to the Retailer. The Distributor sends the corrected usage to the Retailer. The Distributor then issues the corrected Invoice to Retailer (see Cancel/Rebill at the end of the Invoices section for more details). See flow INV-3 for details.

Response

Once the Retailer receives this transaction, they send an Application Advice Accept or Reject back to the Distributor stating that it was either accepted or rejected. This Application Advice Accept or Reject is sent no later than two business days after the receipt of the Invoice transaction from the Distributor.

If a Retailer receives an Invoice Rate Ready transaction where the originating Distributor does not correctly calculate the charges, the Retailer will return an Application Advice Reject to the Distributor. The final resolution of the issue will take place offline.

Rules

There is only one Consumer to one Invoice transaction.

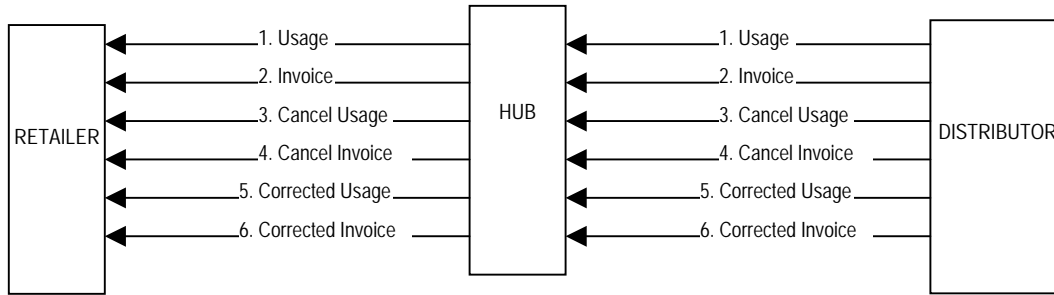
Use of "MeasurementSignificance":

For use of the "MeasurementSignificance" tag, see the description under General Description of the Data heading in section 5.2.1 Usage Transaction.

Billing of Taxes

The billing party will be responsible for the collection and remittance of all taxes to the government. See Section 5.3.6 Invoice – Settlement under "Billing of Taxes" for further information.

**TRANSACTION FLOW INV-3:
Distributor Rate Ready Billing Option**



*****Application Advice Accept or Reject must be sent on all above transactions to indicate an accept or reject of the transaction.**

Flow:

1. Usage is sent from the Distributor to the Retailer no later than noon of the 4th business day after the scheduled meter read date.
2. (Optional – If the Market Participants agree that line items are necessary) The Distributor calculates the Retailer’s commodity for the bill and sends the line items to the Retailer no later than 12 business days after the Usage Transaction is sent.
3. (Conditional) Distributor sends cancelled Usage to Retailer.
4. (Conditional) Distributor cancels original Invoice.
5. (Conditional – Only if Step 3 occurs) Distributor sends corrected Usage to Retailer.
6. (Conditional – Only if Step 4 occurs) Distributor sends the corrected Invoice to Retailer.

The Distributor then sends the Consumer a consolidated bill with both Retailer and Distributor charges on it, by regular mail.

Transaction Flows with Examples:

The following transaction-flows outline the procedure used in a typical cycle without an error and a cycle where the Distributor cancelled the usage after sending the bill to the Consumer. . Note that the Application Advice transactions have not been shown to simplify the transaction flows.

Note that after the Distributor issues a Usage transaction, the Retailer has two business days to respond with an Invoice Rate Ready transaction. Invoice transactions after this window may be rejected. Likewise, after the Distributor issues a Usage Cancel transaction, the Retailer has two business days to issue an Invoice Rate Ready Cancel transaction. Cancel Invoice transactions issued after this date may be rejected.

The following values are used in the examples given within this section. All are based on a scenario where an original usage read was 1000kWh. Later after the usage was sent to the Retailer, the usage was changed by the Distributor (e.g., either due to an actual meter-read, a new estimate, etc.).

Original consumption/bill

Consumption	Bill Ready Charge	Spot Market Price	Settlement Difference
1000 kWh	\$120	\$100	\$20

Corrected consumption/bill

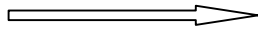
Consumption	Bill Ready Charge	Spot Market Price	Settlement Difference
500	\$60	\$50	\$10

Distributor Consolidated Rate Ready account without cancel:

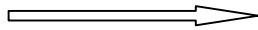
Step 1

Consumption calculated -1000 kWh based on estimated reading.

EBT Transactions:

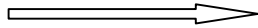


(U1) Usage transaction sent from Distributor to Retailer for 1000 kWh
(Spot price of commodity is \$100)



(I1) Invoice Rate Ready transaction from Distributor to Retailer for rate ready charge of \$120

- Consumer's account charged \$120
- BILL ISSUED to Consumer by Distributor
- The Transaction Cross Reference Number is set to the Transaction Reference Number from (U1).



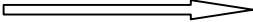
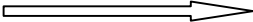
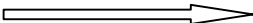
(I2) Invoice Settlement Detail transaction sent from Distributor to Retailer for minus \$20 (i.e., the Distributor owes the Retailer \$20, \$100 from U1 minus \$120 from I1).

Distributor Consolidated Rate Ready account with cancel:

Step 1

Consumption calculated -1000 kWh based on estimated reading.

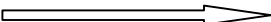
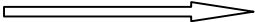


EBT Transactions:

-  (U1) Usage transaction sent from Distributor to Retailer for 1000 kWh (Spot price of commodity is \$100)
-  (I1) Invoice Rate Ready transaction from Distributor to Retailer for rate ready charge of \$120
- Consumer's account charged \$120
 - BILL ISSUED to Consumer by Distributor
 - The Transaction Cross Reference Number is set to the Transaction Reference Number from (U1).
-  (I2) Invoice Settlement Detail transaction sent from Distributor to Retailer for minus \$20 (i.e., the Distributor owes the Retailer \$20, that is \$100 from U1 minus \$120 from I1).

Step 2

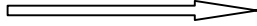
Consumption recalculated – 500 kWh based on actual reading – original usage to be cancelled

EBT Transactions:

-  (UC) Cancel usage transaction from Distributor to Retailer for 1000 kWh
- The Original Transaction Reference Number is set to the Transaction Reference Number from (U1).
-  (IC) Invoice Rate Ready Cancel transaction sent from Distributor to Retailer to cancel charge of \$120
- Consumer's charge of the original \$120 in (I1) is reversed.
 - The Original Transaction Reference Number is set to the Transaction Reference Number from (I1).
 - The Transaction Cross Reference Number is set to the Transaction Reference Number from (U1).
-  (U2) Usage transaction sent from Distributor to Retailer for the correct amount of 500 kWh (Spot price of commodity is \$50)
-  (I3) Invoice Rate Ready transaction sent from Distributor to Retailer (Note: This can occur immediately or on next bill cycle)
- Consumer's account charged for \$60
 - Retailer account is credited with \$10 (\$60 minus the commodity spot price of \$50)

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- BILL ISSUED to Consumer by Distributor. This Consumer bill will sum all adjustments, payments and new charges for a net invoice amount.
- The Transaction Cross Reference Number is set to the Transaction Reference Number from (U2).



(I4) Invoice Settlement Detail transaction sent from Distributor to Retailer for \$10 (i.e., the Retailer owes the Distributor \$10). It is derived from:

- minus \$100 due to the correction in (UC)
- plus \$50 for the updated quantity presented in (U2)
- plus \$120 due to the correction in (IC)
- minus \$60 from (I3)

*All accounts are balanced

5.3.4 Invoice – Retailer Bill Ready

Definition/purpose

The Distributor sends this transaction to the Retailer. This transaction is used when the Distributor calculates their own charges and the charges print on a Retailer's consolidated bill. The Retailer then sends the complete bill to the Consumer.

Flow

Usage is sent from the Distributor to the Retailer no later than noon of the 4th business day from the scheduled meter read date. The Distributor then calculates the non-competitive service charges, which will be sent to the Retailer no later than twelve business days after the Usage Transaction is sent.

For Cancel/Rebill scenarios, the Distributor sends the cancelled usage transactions to the Retailer. The Distributor then sends the cancelled Invoice to the Retailer. The Distributor sends the corrected usage transaction to the Retailer. The Distributor then sends the corrected Invoice to Retailer (see Cancel/Rebill at the end of the Invoices section for more details). See flow INV-4 for details.

Response

Once the Retailer receives this transaction, they send an Application Advice Accept or Reject back to the Distributor stating that it was either accepted or rejected. This Application Advice Accept or Reject is sent no later than two business days after the receipt of the Invoice transaction from the Distributor.

Rules

There is only one Consumer to one Invoice transaction.

Where the Distributor chooses to send an IBR, only one IBR transaction may be sent in reference to one Usage transaction (BillRequired field set to 'yes'). Multiple IBR transactions may not be sent in reference to a single Usage transaction.

In the event that the IBR has been sent and not rejected, and must be revised or replaced, an IBR Cancel transaction must be sent, followed by a revised IBR transaction for that same service period. It is not valid to send the replacement IBR transaction without first cancelling the original IBR transaction being replaced.

Use of "MeasurementSignificance":

For use of the "MeasurementSignificance" tag, see the description under General Description of the Data heading in section 5.2.1 Usage Transaction.

Use of "MarketPowerMitigation" for Provincial Benefit (also known as Global Adjustment)

As a result of Bill 100 there is a requirement to reflect and pass the Provincial Benefit (to be termed "Provincial Benefit" on Consumer invoices) to Retailers where Consumers are

enrolled with a Retailer under Retailer Consolidated Billing only. These adjustments must be passed through to RCB Retailers as a separate charge category. The Retailers must show this amount separately on invoices to all relevant Consumers.

Distributors will calculate the Provincial Benefit amounts and, as a short term solution, populate this amount (+/-) in a Charge Category that is currently not being used. The Charge Category used for the Provincial Benefit will be "MarketPowerMitigation". The Charge Description will be "Provincial Benefit".

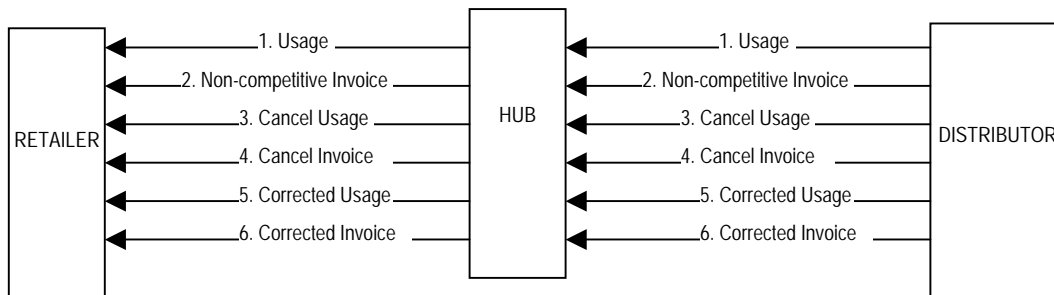
All previously approved EBT flows apply to the Provincial Benefit. For example, if an IBR contains an incorrectly calculated Provincial Benefit amount, the IBR must be cancelled and a new IBR issued. The Provincial Benefit change does not remove any functionality currently provided in the EBT Standards.

The Provincial Benefit should be sent at the account level or service level according to current practice. The intention is that the Provincial Benefit will eventually be sent at the service level, recognizing that consumption must also be sent at the service level.

Billing of Taxes

The billing party will be responsible for the collection and remittance of all taxes to the government. See Section 5.3.6 Invoice – Settlement under “Billing of Taxes” for further information.

**TRANSACTION FLOW INV-4:
Retailer Bill Ready Billing Option**



*****Application Advice Accept or Reject must be sent on all above transactions to indicate an accept or reject of the transaction.**

Flow:

1. Usage is sent from the Distributor to the Retailer no later than noon of the 4th business day after the scheduled meter read date.
2. Distributor calculates the non-competitive service charges (e.g. T&D, admin., IMO service, etc.) and will send them to the Retailer no later than 12 business days after the Usage Transaction is sent.
3. (Conditional) Distributor sends cancelled Usage to Retailer.

4. (Conditional) Distributor sends cancelled Invoice to Retailer.
5. (Conditional – Only if Step 3 occurs) Distributor sends corrected Usage to Retailer.
6. (Conditional – Only if Step 4 occurs) Distributor sends corrected Invoice to Retailer.

Transaction Flows with Examples:

The following transaction-flows outline the procedure used in a typical cycle without an error and a cycle where the Distributor cancelled the usage after sending the bill to the Consumer. . Note that the Application Advice transactions have not been shown to simplify the transaction flows.

The following values are used in the examples given within this section. All are based on a scenario where an original usage read was 1000kWh. Later after the usage was sent to the Retailer, the usage was changed by the Distributor (e.g., either due to an actual meter-read, a new estimate, etc.).

Original consumption/bill

Consumption	Bill Ready Charge	Spot Market Price	Settlement Difference
1000 kWh	\$120	\$100	\$20

Corrected consumption/bill

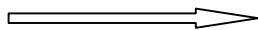
Consumption	Bill Ready Charge	Spot Market Price	Settlement Difference
500	\$60	\$50	\$10

Retailer Consolidated Bill Ready account without cancel:

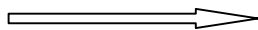
Step 1

Consumption calculated -1000 kWh based on estimated reading.

EBT Transactions:

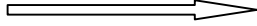


(U1) Usage transaction sent from Distributor to Retailer for 1000 kWh
(Spot price of commodity is \$100)



(I1) Invoice Bill Ready transaction sent from Distributor to Retailer for non-competitive charges

- BILL ISSUED to Consumer by Retailer
- The Transaction Cross Reference Number is set to the Transaction Reference Number from (U1).



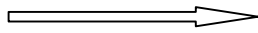
(12) Invoice Settlement Detail transaction sent from Distributor to Retailer for \$100 plus non-competitive charges (i.e., the Retailer owes the Distributor for both the \$100 of electricity and the non-competitive charges).

Retailer Consolidated Bill Ready account with cancel:

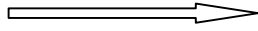
Step 1

Consumption calculated -1000 kWh based on estimated reading.

EBT Transactions:

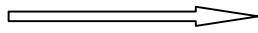


(U1) Usage transaction sent from Distributor to Retailer for 1000 kWh
(Spot price of commodity is \$100)



(I1) Invoice Bill Ready transaction sent from Distributor to Retailer for non-competitive charges

- BILL ISSUED to Consumer by Retailer
- The Transaction Cross Reference Number is set to the Transaction Reference Number from (U1).

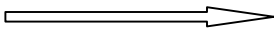


(I2) Invoice Settlement Detail transaction sent from Distributor to Retailer for \$100 plus non-competitive charges (i.e., the Retailer owes the Distributor for both the \$100 of electricity and the non-competitive charges).

Step 2

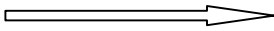
Consumption recalculated – 500 kWh based on actual reading – original bill to be cancelled

EBT Transactions:



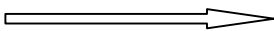
(UC) Cancel usage transaction from Distributor to Retailer for 1000 kWh

- The Original Transaction Reference Number is set to the Transaction Reference Number from (U1).

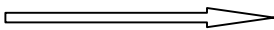


(IC) Invoice Bill Ready Cancel transaction sent from Distributor to Retailer to cancel non-competitive charges

- Consumer's charge of the original non-competitive charges in (I1) is reversed.
- The Original Transaction Reference Number is set to the Transaction Reference Number from (I1).
- The Transaction Cross Reference Number is set to the Transaction Reference Number from (U1).

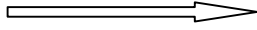


(U2) Usage transaction sent from Distributor to Retailer for the correct amount of 500 kWh (Spot price of commodity is \$50)



(I3) Invoice Bill Ready transaction sent from Distributor to Retailer for updated non-competitive charges (Note: This can occur immediately or on next bill cycle).

- BILL ISSUED to Consumer by Retailer. This Consumer bill will sum all adjustments, payments and new charges for a net invoice amount.
- The Transaction Cross Reference Number is set to the Transaction Reference Number from (U2).
- Distributor account is updated with non-competitive charges owed to Distributor by Retailer.



(I4) Invoice Settlement Detail transaction sent from Distributor to Retailer. It is derived from:

- minus \$100 due to the correction in (UC)
- plus \$50 for the updated quantity presented in (U2)
- minus the cost of the original non-competitive charges due to the correction in (IC)
- plus updated non-competitive charges from (I3)

5.3.5 Invoice – Retailer Rate Ready

Definition/purpose

The Retailer sends this transaction to the Distributor. This transaction is used when the Retailer calculates the Distributor charges, based on the rates provided by the Distributor to the Retailer. The Retailer then sends the complete bill to the Consumer.

Flow

The usage transaction is sent from the Distributor to the Retailer no later than noon of the 4th business day from the scheduled meter read date. The Retailer then calculates the Distributor's line items for the bill and sends the line items to the Distributor no later than two business days after the usage transaction is sent. For Cancel/Rebill scenarios, the Distributor sends the cancel usage transaction to the Retailer. The Retailer then cancels the original Invoice to the Distributor. The Distributor sends the corrected usage transaction to the Retailer. The Retailer then issues the corrected Invoice to Distributor (see Cancel/Rebill at the end of the Invoices section for more details). See flow INV-5 for details.

Response

Once the Distributor receives this transaction, they send an Application Advice Accept or Reject back to the Retailer stating that it was either accepted or rejected. This Application Advice Accept or Reject is sent no later than two business days after the receipt of the Invoice transaction from the Distributor.

Rules

This transaction is a one to one transaction. This means that there is only one Consumer to one Invoice transaction.

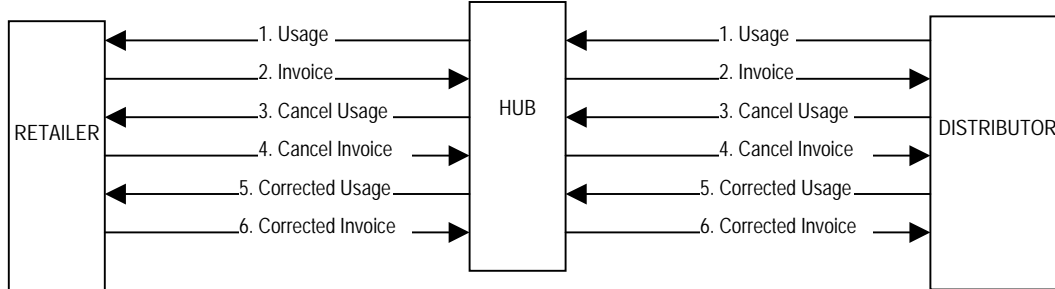
Use of "MeasurementSignificance":

For use of the "MeasurementSignificance" tag, see the description under General Description of the Data heading in section 5.2.1 Usage Transaction.

Billing of Taxes

The billing party will be responsible for the collection and remittance of all taxes to the government. See Section 5.3.6 Invoice – Settlement under "Billing of Taxes" for further information.

**TRANSACTION FLOW INV-5:
Retailer Rate Ready Billing Option**



*****Application Advice Accept or Reject must be sent on all above transactions to indicate an accept or reject of the transaction.**

Flow:

1. Usage is sent from the Distributor to the Retailer no later than noon of the 4th business day after the scheduled meter read date.
2. The Retailer calculates the Distributor's line items for the bill and sends the line items to the Distributor no later than 2 business days after the Usage Transaction is sent.
3. (Conditional) Distributor sends cancelled Usage to Retailer.
4. (Conditional) Retailer sends a cancel original Invoice.
5. (Conditional – Only if Step 3 occurs) Distributor sends corrected Usage to Retailer.
6. (Conditional – Only if Step 4 occurs) Retailer sends corrected Invoice to Distributor.

The Retailer then sends the Consumer a consolidated bill with both Retailer and Distributor charges on it, by regular mail.

5.3.6 Invoice – Settlement

Definition/purpose

These transactions are sent from the Distributor to the Retailer. This is an Invoice that is sent between two Trading Partners that shall be sent in two different transactions:

“Settlement Total” transaction includes summary information based on all Consumers billing cycle. The detail that is needed on an individual Consumer level by billing cycle shall be sent using the “Settlement Detail” transaction. This is a mandatory transaction.

“Settlement Detail” transaction contains only one Consumer per transaction. This transaction is mandatory. It will carry a Settlement cross reference number back to the “Settlement Total” transaction for the Retailer to match up.

This Invoice is used for the settlement between the Distributor and Retailer based on market price. These transactions are based on a Consumer’s bill cycle. This means that after each day’s Distributor bill cycle, the “Settlement Total” Invoice is generated and sent to the Retailer for all Consumers in this bill cycle. Once again, for detailed information needed for each Consumer within the bill cycle, you will use the Settlement Detail transaction in conjunction with the “Settlement Total” transaction. The Invoice Settlement Detail (ISD) transaction is a Consumer-level account statement sent from a Distributor to a Retailer. The charges and credits listed on a given ISD must reflect any transactions listed below that are:

- sent by, or received by, a Distributor for a particular Consumer since the last ISD transaction for that Consumer was issued; and
- which cause a charge to be generated for Consumer billing and settlement.

The transactions to be considered on the ISD transaction are as follows:

- **Usage EBT** transactions sent by the Distributor and used to calculate the settlement.
- **Usage-Cancel EBT** transactions sent by the Distributor and used to calculate the settlement.
- **Invoice Bill Ready EBT** transactions sent by the Retailer (or Distributor for Retailer Consolidated Billing) and used to calculate the settlement.
- **Invoice Bill Ready-Cancel EBT** transactions sent by the Retailer (or Distributor for Retailer Consolidated Billing) and used to calculate the settlement.
- **Invoice Rate Ready EBT** transactions sent by the Distributor and used to calculate the settlement.
- **Invoice Rate Ready-Cancel EBT** transactions sent by the Distributor and used to calculate the settlement.

Flow

These transactions are always sent from the Distributor to the Retailer. The timeframe of when these transactions are sent will be defined in the service agreement between the

Distributor and Retailer. If these transactions do not meet the criteria defined by the EBT Standards, the Application Advice Reject will be generated to reject that transaction.

Response

Once the Retailer receives these transactions, they send an Application Advice Accept or Reject back to the Distributor stating that the transaction was either accepted or rejected. This Application Advice Accept or Reject is sent no later than two business days after the receipt of the Invoice transactions from the Distributor.

Rules

The "Invoice Settlement Total"(IST) transaction is mandatory. The "Invoice Settlement Detail" (ISD) transaction is also mandatory and contains only one Consumer per transaction. This transaction is sent based on a Consumer billing cycle.

It is not the intention to alter the Distributor's billing patterns and therefore the Billing Cycle is optional within the IST. To that end, a Distributor has two options for creating the IST:

Option 1.) Do not present the billing cycle within the IST transaction and include more than one bill cycle within the IST transaction. The billing cycle for each Consumer is required in the ISD transactions that provide the detailed breakdown of the total.

Option 2.) Present multiple IST transactions during the day. Each IST transaction is the total for a group of one, or more, ISD transactions where all ISD transactions within each group correspond to a single bill cycle.

The IST transaction has a "Begin Date" and "End Date" under Service Period. These are mandatory fields. For the summary invoice of daily billing, this could span multiple service periods and bill cycles, particularly if adjustments are involved. The dates reflect when the charge was incurred (i.e., the dates for the invoice itself, not when the activities, or line items, may have taken place).

The IST will provide for charges to be presented individually totalled by Account Charge Category. Further stated, a given IST transaction is associated with a set of one, or more, ISD transactions. Each of the ISDs points to the IST via the Transaction Cross Reference Number. The IST must contain sub-totals for each charge category type present with its associated set of ISD transactions. The amounts in the set of ISD transactions must balance against those in the associated IST transaction. Example IST calculations can be found in Appendix C, Section 3.1 for Distributor Consolidated Billing, and Sections 3.2 and 3.3 for Retailer Consolidated Billing.

When the Distributor wishes to send ISD transactions that correspond to different due dates, multiple IST transactions are required. The due date for each ISD transaction associated with a given IST transaction must be the same and must match that in the IST transaction.

The information within the MarketParticipantInformation element should be of the type normally placed on a bill when invoicing a second party (i.e. the originator's information). Specifically, this means the following:

- The company name is the originator's company name.
- The GST Registration Number is that of the originator.
- The MarketParticipantAccountNumber is the account number for the trading partner recipient of the message as held by the originator of the message. In this case, the recipient is the customer of the originator.
- Billing Cycle is the originator's billing cycle for this trading partner as a customer

The 'Source Transaction Reference Number' field in the ISD transaction will be populated with the Transaction Reference Number of the transaction being settled. The Source Transaction Reference Number will be required for every 'RetailerBillAmount' and 'Commodity' Account Charge Category for Distributor Consolidated Billing (and every Account Charge Category coming from the Usage(s) and IBR transactions for Retailer Consolidated Billing). Each Account Charge will be assigned an Account Charge Category according to the source of the charge.

There are three possible Account Charge Categories which may be used for the *Distributor Consolidated Billing Option*:

Charge Category "**Commodity**"

- Used for all charges related to the Competitive Electricity Cost.
- The Source Transaction Reference Number will refer to the Usage or Usage-Cancel EBT that contained the usage data used to calculate the charge.
- If the Distributor uses the WAHSP in the calculation of the commodity, the WAHSP element is required when the Charge Category is **Commodity**.

Charge Category "**RetailerBillAmount**"

- Used for the Retailer's charges to the Consumer, including account, rate, and service charges
- The Source Transaction Reference Number will refer to the Invoice Bill-Ready, Invoice Bill-Ready-Cancel, Invoice Rate-Ready, or Invoice Rate-Ready-Cancel transaction used to request the charges.

Charge Category "**Taxes**"

- Used in accordance with the "Billing of Taxes" options below.
- The Source Transaction Reference Number will contain a null value.

The applicable Charge Categories will be shown on the ISD for each Invoice Bill-Ready, Invoice Bill-Ready-Cancel, Invoice Rate-Ready, and Invoice Rate-Ready-Cancel transaction that generates a charge to be settled, notwithstanding the following:

- Invoice Bill-Ready- When a Usage and corresponding Usage-Cancel EBT are issued within the same Consumer billing cycle, there is no net effect on the Consumer bill and therefore the transactions will not be captured on the ISD. Similarly, when an IBR and corresponding IBR-Cancel EBT are received within the same Consumer billing cycle, there is no net effect on the Consumer bill and the transactions therefore will not be captured on the ISD.

- Invoice Rate-Ready- When a Usage and corresponding Usage-Cancel EBT are issued within the same Consumer billing cycle, there is no net effect on the Consumer bill and therefore the transactions will not be captured on the ISD. Similarly, when an IRR and corresponding IRR-Cancel EBT are received within the same Consumer billing cycle, there is no net effect on the Consumer bill and the transactions therefore will not be captured on the ISD.

For *Retailer Consolidated Billing*, charges in the ISD will be presented per Account Charge Category as per section 7.1.1 of the RSC, which includes the ‘Commodity’ charge, among others. The following lists and defines the Account Charge Categories applicable for the *Retailer Consolidated Billing* Option. Where a Charge Category defined below is also defined in the Electricity Rate Handbook, the Electricity Rate Handbook shall prevail. References to Charge Categories on IBRs and IBR Cancels refer to all occurrences of charge categories, including account, rate, and service charges.

Charge Category “**Commodity**”

- Used to represent the cost of the Usage Consumption (specifically, the ‘Commodity’ charge total for a specified service period per Usage transaction).
- The Source Transaction Reference Number shall refer to the Usage or Usage Cancel transaction that contained the usage data used to calculate the charge.
- If the Distributor uses the WAHSP in the calculation of the commodity, the WAHSP element is required when the Charge Category is **Commodity**.

Charge Category “**Customer**”

- Used by the Distributor to recover the fixed costs for delivering electricity.
- The Source Transaction Reference Number shall refer to the IBR or IBR-Cancel transaction that contained the data used to calculate the charge.

Charge Category “**Distribution**”

- Used to represent the variable cost of delivering electricity from the Distributor to the end Consumer, as well as the cost for providing services such as meter reading, billing and account maintenance.
- The Source Transaction Reference Number shall refer to the IBR or IBR-Cancel transaction that contained the data used to calculate the charge.

Charge Category “**Transmission**”

- Used to represent the Distributor’s retail transmission rate where both the Network and Connection charges have been bundled into a single Charge Category.
- The Source Transaction Reference Number shall refer to the IBR or IBR-Cancel transaction that contained the data used to calculate the charge.

Charge Category “**TransmissionNetwork**”

- Used to represent the Distributor’s retail transmission network charges.
- The Source Transaction Reference Number shall refer to the IBR or IBR-Cancel transaction that contained the data used to calculate the charge.

Charge Category “**TransmissionConnection**”

- Used to represent the Distributor’s retail transmission connection charges.

- The Source Transaction Reference Number shall refer to the IBR or IBR-Cancel transaction that contained the data used to calculate the charge.

Charge Category “**WholesaleMarketService**”

- Used to represent the Distributor’s costs charged by the IMO for administration and the operation of the IMO-controlled grid.
- The Source Transaction Reference Number shall refer to the IBR or IBR-Cancel transaction that contained the data used to calculate the charge.

Charge Category “**BundledNonCompetitiveElectricityCharge**”

- Used where a Distributor is permitted to bundle charges into one charge item. (Transmission, Wholesale Market Charges).
- The Source Transaction Reference Number shall refer to the IBR or IBR-Cancel transaction that contained the data used to calculate the charge.

Charge Category “**RuralRateAssistance**”

- Used to represent a credit to the Consumer, when applicable
- The Source Transaction Reference Number shall refer to the IBR or IBR-Cancel transaction that contained the data used to calculate the charge.

Charge Category “**MarketPowerMitigation**”

- Used to represent the Provincial Benefit amount with a Charge Description of “Provincial Benefit” that a Retailer should place on the appropriate Consumer invoices. See Section 5.3.4 Invoice – Retailer Bill Ready under the heading “Rules” for further information about the Provincial Benefit.
- The Source Transaction Reference Number shall refer to the IBR or IBR-Cancel transaction that contained the data used to calculate the charge.

Charge Category “**RSVA**”

- As defined in the Electricity Distribution Rate Handbook.
- The Source Transaction Reference Number shall refer to the IBR or IBR-Cancel transaction that contained the data used to calculate the charge.

Charge Category “**Taxes**”

- Used in accordance with the “Billing of Taxes” options below.
- The Source Transaction Reference Number shall contain a null value.

Charge Category “**OtherSpecificCharges**”

- Used to capture other specified charges not identified above as a separate Category code. This Charge Category may not be used to reflect any charge categories that are defined already in this section.
- Where this Charge Category is used, the Charge Category ‘Description’ field of the transaction shall reflect the exact charge description as approved on the Distributor’s Rate Order.
- Where there are multiple items, each item must be reflected with a Charge Category of ‘OtherSpecificCharges’ and the Description field populated.
- ‘Miscellaneous’ is not a valid Charge Category.
- The Source Transaction Reference Number shall refer to the IBR or IBR-Cancel transaction that contained the data used to calculate the charge.

Where one WAHSP is applicable to one or more service periods within one Usage transaction, the consumption amounts with the same WAHSP may be aggregated to one Account Charge on the ISD.

Where multiple WAHSPs are used for a given Usage transaction (e.g. there are multiple service periods contained in the Usage transaction), each WAHSP must have its own commodity charge on the ISD.

Corrections to settlement amounts will be agreed upon by both parties and included on a future ISD transaction. The correction will be listed as an Account Charge with Source Transaction Reference Number referencing the Usage, Invoice Bill Ready, Invoice Rate Ready, or associated Cancel transaction for which the settlement amount is being corrected. *The Charge Category will be chosen according to the transaction type, as described above.*

For clarity, the amount is not to be presented as an adjustment to the original amount, but as a correction. The incorrect amount must be provided as a reversal referencing the Source Transaction Reference Number of the transaction for which the amount is being reversed, and then issuing the corrected amount referencing the Source Transaction Reference Number of the transaction for which the amount is being corrected.

The reversal and corrected amount may be provided for in the same ISD or in two separate ISDs. The correction will also be captured in the subsequent IST that follows. The Bill Purpose will be “Original”.

Appendix C contains example settlement transaction flows and ISD transaction details in Section 1.0 for Distributor Consolidated Billing, and Section 2.0 for Retailer Consolidated Billing.

Final IBRs Not Billed and Settled

According to Bill 210 and Ontario Regulation 433/02, all low volume and designated Consumers are to pay a legislated rate per kilowatt-hour on their consumption starting from May 1, 2002. As a result, Retailers have the issue of how to collect unrealized revenue, or issue outstanding Consumer refunds, on accounts no longer enrolled with them.

Prior to Bill 210 and its associated Regulations, the Retailer was responsible for settling these amounts directly with the Consumer. However, since Bill 210 and its associated Regulations, the Retailer cannot settle directly with the Consumer as this will result in the Consumer being charged more than the legislated rate.

Further, if the Retailer settles these amounts outside the Distributor settlement process, the Distributor will not have all the settlements information necessary to accurately calculate the retroactive payment (back to May 1, 2002) as required under Ontario Regulation 433/02.

Consequently, it is recommended that Retailers send all unsettled amounts for low-volume and designated accounts back to the Distributors for settlement/payment. The details of these unsettled accounts shall be communicated by the Retailer to the Distributor manually, outside of the EBT system using a CSV file. The details of this manual process and CSV file format can be found using the reference given in Appendix A.

Billing of Taxes

The billing party will be responsible for the collection and remittance of all taxes to the government. The taxes in a transaction have to be listed and applied at the structural level within the transaction where the charge is actually listed.

Taxes can be presented within EBTs in one of two ways:

- Option 1: Present the taxes without 'Taxes' as a charge category. With this option, each charge carries its own tax amount as part of the taxes element associated with the charge. There is no separate charge with a Charge Category of 'Taxes'
- Option 2: Present the taxes as a separate charge category. With this option, each charge carries a tax element with a tax amount of zero. A charge with a Charge Category of 'Taxes' exists. This charge has an amount of zero, but contains a tax amount equal to the total of the taxes for all the charges.

Independent of whether option one or option two is selected, the total of all the charge amounts is the same and the total of all the tax amounts is the same.

Any taxes, calculated and rounded (per CCRA requirements) on ISDs, must be presented in the IST using summed ISD amounts. Such ISD calculated and rounded amounts cannot be recalculated from scratch (i.e. using the summed base amounts) and then rounded again on the IST. For example, if GST is calculated and rounded to a dollar amount on each ISD, the corresponding IST should show the summed ISD GST amounts *as rounded in the ISDs* and not 7% of the taxable amount. If the latter were to occur on an IST with large numbers of ISDs (which is quite common), the cumulative rounding effects can introduce reconciliation discrepancies. This applies to both Tax Option 1 and 2.

It similarly follows that in order to maintain consistency between IST and ISD amounts, all tax amounts presented in an IST must equal the sum of all tax amounts presented on the corresponding ISDs. In the case of a tax-exempt Consumer where the Distributor charges the Retailer tax on a given account charge, the tax amount to be settled with the Retailer must be presented. This is due to the fact that an ISD is a Consumer-level breakdown of settlement information *as it pertains to Retailer settlement*. The tax exemption flag strictly indicates whether the Consumer was tax exempt.

Calculation of Weighted Hourly Spot Price (WAHSP)

WAHSP Precision:

Differences in rounding rules can cause discrepancies between expected and actual settlement amounts.

All market participants shall follow the convention of noting WAHSP in an ISD in cents per kWh, and to 3 decimal places. This has been selected to be consistent with the price convention for NSLS.

It therefore follows that:

- WAHSP should not only be expressed, but calculated using at least 3 decimal place precision NSLS hourly prices.
- The cost of power should similarly be calculated using at least a 3 decimal place precision WAHSP.

This will avoid introducing precision and rounding discrepancies into the resultant cost of power figure.

Period for WAHSP Calculation:

Distributors shall calculate the WAHSP for settlement using the dates listed in the Usage EBT. Section 3.3 of the Retail Settlement Code defines the calculation of the Competitive Electricity Cost as being derived from Consumer usage, Net System Load Shape (NSLS) and Hourly Ontario Energy Price (HOEP) data over the appropriate usage period. The usage period must be provided to Retailers in the Usage EBT such that they can calculate the Competitive Electricity Cost using the data provided in the Usage EBT and the relevant NSLS Daily EBTs.

For example:

The WAHSP for a Consumer with the usage period January 1 to January 31 (inclusive) is the sum of the HOEP multiplied by the NSLS weight, for each hour of the period. The NSLS weight for a given hour is the Net System Load for that hour divided by the total Net System Load for all of the hours in the period January 1 to January 31.

Similarly, the WAHSP for a Consumer with the usage period February 1 to February 28 (inclusive) is the sum HOEP multiplied by the NSLS weight, for each hour of the period. The NSLS weight for a given hour is the Net System Load for that hour divided by the total Net System Load for all of the hours in the period February 1 to February 28.

The WAHSP for a Consumer with the usage period January 1 to February 28 (inclusive) is the sum of the Hourly Ontario Energy Price (HOEP) multiplied by the NSLS weight, for each hour of the period. The NSLS weight for a given hour is the Net System Load for that hour divided by the total Net System Load for all of the hours in the period January 1 to February 28. The WAHSP obtained in this way is not equivalent to values obtained by summing the products of the hourly weights and HOEPs for January and

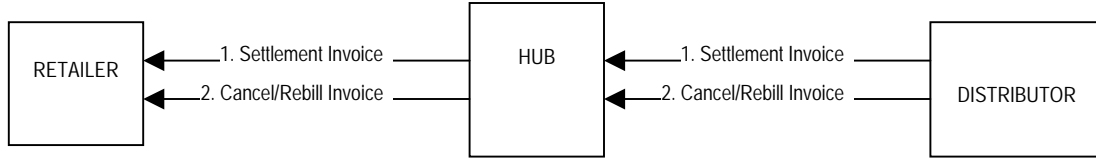
February, nor by taking the simple average of the WAHSP values for the two individual months. These other calculations will not yield the WAHSP required by the RSC.

All market participants shall follow the time format clarified in Section 5, “Technical Rules for all Transactions”. Per the examples above, the dates would be formatted as follows:

Date Range	EBT Start Date	EBT End Date
Jan 1 to Jan 31, 2002	200201010000ES	200201312359ES
Feb 1 to Feb 28, 2002	200202010000ES	200202282359ES
Jan 1 to Feb 28, 2002	200201010000ES	200202282359ES

Whether actual or estimated meter readings are involved, the relevant period must be shown in the Usage EBT, and the HOEP and NSLS values corresponding to that period must be used to calculate the WAHSP or, equivalently, the Competitive Electricity Cost (settlement cost). The inclusion of a single hour outside of these intervals or the exclusion of any relevant hours when determining WAHSPs and settlement costs will result in incorrect calculations.

TRANSACTION FLOW INV-6: Retailer Bill Ready Settlement Invoice



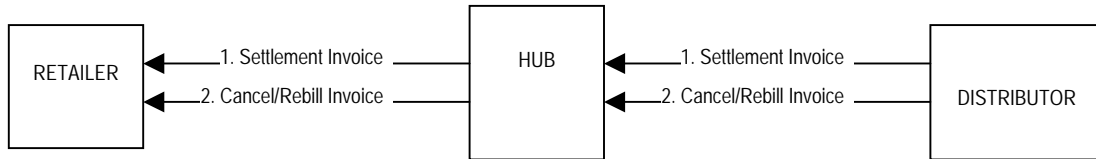
*****Application Advice must be sent on all above transactions to indicate an accept or reject of the transaction.**

Flow:

1. The Settlement Invoice (Total and Detail) is derived after the meter read date of the Consumer cycle (this is in order to receive IMO preliminary data). This is what the Distributor would bill the Consumer at spot price (NSLS). The time frame of sending this transaction will be defined in the service agreement between the Distributor and Retailer.

If these transactions are disputed, the Application Advice Reject will be generated. The dispute will then be handled outside of the EBT system.

TRANSACTION FLOW INV-7: Retailer Rate Ready Settlement Invoice

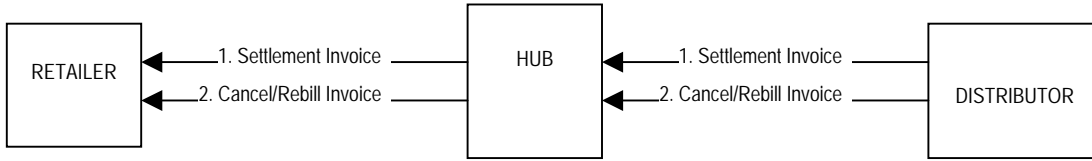


*****Application Advice must be sent on all above transactions to indicate an accept or reject of the transaction.**

Flow:

1. The Settlement Invoice (Total and Detail) is derived after the meter read date of the Consumer cycle (this is in order to receive IMO preliminary data). This is what the Distributor would bill the Consumer at spot price (NSLS). The time frame of sending this transaction will be defined in the service agreement between the Distributor and the Retailer.
2. If these transactions are disputed, the Application Advice Reject will be generated. The dispute will then be handled outside of the EBT system.

**TRANSACTION FLOW INV-8:
Distributor Bill Ready Settlement Invoice**

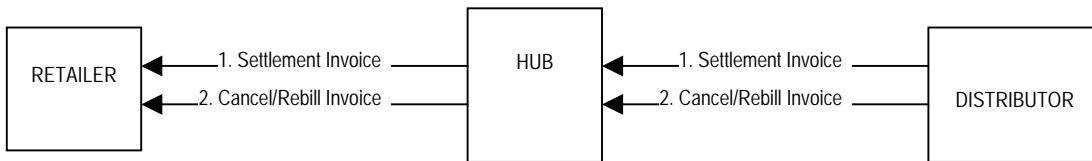


*****Application Advice must be sent on all above transactions to indicate an accept or reject of the transaction.**

Flow:

1. The Settlement Invoice (Total and Detail) is derived after the meter read date of the Consumer cycle (this is in order to receive IMO preliminary data). It is the difference between what the Distributor billed to the Retailer at spot price, and what the Retailer actually billed the Consumer based on their contract. An example of this is a spot price charge of seven cents to the Retailer and nine cents to the Consumer (or vice versa), based on their contract with the Retailer. The time frame of sending this transaction will be defined in the service agreement between the Distributor and the Retailer. Within an invoice settlement transaction, the taxes are calculated based on the spot price of the electricity and not on the settlement difference being presented in the invoice settlement transaction itself.
2. If these transactions are disputed, the Application Advice Reject will be generated. The dispute will then be handled outside of the EBT system.

**TRANSACTION FLOW INV-9:
Distributor Rate Ready Settlement Invoice**

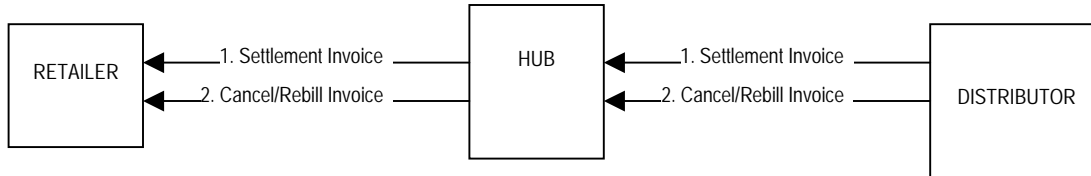


*****Application Advice must be sent on all above transactions to indicate an accept or reject of the transaction.**

Flow:

1. The Settlement Invoice (Total and Detail) is derived after the meter read date of the Consumer cycle (this is in order to receive IMO preliminary data). It is the difference between what the Distributor billed to the Retailer at spot price and what the Retailer actually billed the Consumer based on their contract. An example of this is a spot price charge of seven cents to the Retailer and nine cents to the Consumer (or vice versa), based on their contract with the Retailer. The time frame of sending this transaction will be defined in the service agreement between the Distributor and the Retailer. Within an invoice settlement transaction, the taxes are calculated based on the spot price of the electricity and not on the settlement difference being presented in the invoice settlement transaction itself.
2. If these transactions are disputed, the Application Advice Reject will be generated. The dispute will then be handled outside of the EBT system.

TRANSACTION FLOW INV-10: Split Billing Settlement Invoice



*****Application Advice must be sent on all above transactions to indicate an accept or reject of the transaction.**

Flow:

1. The Settlement Invoice (Total and Detail) is derived after the meter read date of the Consumer cycle (this is in order to receive IMO preliminary daily statement). This is the amount of energy used by the Retailer's Consumers at the spot price, plus other relevant costs. The time frame of sending this transaction will be defined in the service agreement between the Distributor and the Retailer.
2. If these transactions are disputed, the Application Advice Reject will be generated to dispute the transaction. The dispute will then be handled outside of the EBT system.

5.3.7 Invoice – Market Participant

Definition/purpose

This is a mandatory transaction that is sent through the EBT system between the Market Participants (a/k/a Trading Partners). A Market Participant sends an invoice to another Market Participant which represents the administration charges and other fees (e.g., enrolment fees, meter reads, collection charges, billing services, etc.). The Market Participant Invoice schedule will be determined between the trading partners, and is defined in the Trading Partner Service Agreement.

Flow

The Market Participant sends an Invoice to another Market Participant which represents the administration charges and other fees (e.g., enrolment fees, meter reads, collection charges, billing services, etc.). The days for which the Invoice will be calculated, as well as when the Invoice will be submitted, are determined in the trading partner's service agreement. For Cancel/Rebill scenarios, Market Participant A sends an Invoice to reverse the invoice to be cancelled to another Market Participant, identified as Market Participant B. Market Participant A then sends the corrected Invoice to Market Participant B. (see Cancel/Rebill at the end of the Invoices section for more details). See INV-11 for more details.

Response

Once Market Participant B receives this transaction, they send an Application Advice back to Market Participant A stating that it was either accepted or rejected. This Application Advice is sent no later than two business days after the receipt of the Invoice transaction from Market Participant A.

Rules

This transaction is a one to one relationship. This means that there will be only one Invoice for all charges sent between Market Participants.

The information within the MarketParticipantInformation element should be of the type normally placed on a bill when invoicing a second party (i.e. the originator's information). Specifically, this means the following:

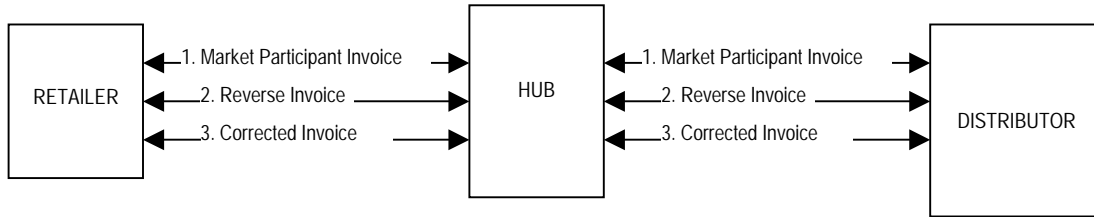
- The company name is the originator's company name.
- The GST Registration Number is that of the originator.
- The MarketParticipantAccountNumber is the account number for the trading partner recipient of the message as held by the originator of the message. In this case, the recipient is the customer of the originator.
- Billing Cycle is the originator's billing cycle for this trading partner as a customer

Billing of Taxes

The billing party will be responsible for the collection and remittance of all taxes to the government. The taxes in a transaction have to be listed and applied at the structural

level within the transaction where the charge is actually listed. See Section 5.3.6 Invoice – Settlement under “Billing of Taxes” for further information.

**TRANSACTION FLOW INV-11:
Market Participant Invoice**



*****Application Advice must be sent on all above transactions to indicate an accept or reject of the transaction.**

Flow:

1. Market Participant sends Invoice to other Market Participant that represents the admin. charges and the other fees (e.g. enrolment fees, meter reads, collection charges, billing services, etc.). The invoice will be calculated and submitted based on the number of days stipulated in the service agreement between the trading parties.
2. (Conditional) Market Participant sends Invoice to reverse original Invoice to other Market Participant.
3. (Conditional – Only if Step 2 occurs) Market Participant sends Corrected Invoice to other Market Participant.

Cancel/Rebill Procedures

The Retail Settlement Code uses the following statements with respect to Billing Errors -- Adjustments:

- Adjustments for Invoices that are ***over billed*** can be credited to the Retailer/Consumer within up to a six-year time period as long as Measurement Canada has not become involved. The adjustment will also contain an interest amount as well as the adjustment amount. This adjustment will be performed by sending an Invoice transaction with a code for adjustment.
- Adjustments for Invoices that are ***under billed*** can be debited back to the Retailer/Consumer within up to a two-year time period as long as Measurement Canada has not become involved. This adjustment will be done by sending an Invoice transaction with a code for adjustment.

Cancel/Rebill Procedure – Distributor Consolidated Billing Option – Bill Ready

1. (Conditional) Distributor Cancels Meter Readings: Distributor will forward one Usage Cancel transaction for each billing period being cancelled to the current Retailer. Usage Cancellation transactions older than 12 months and/or cancellations involving prior Retailers shall be communicated by a method other than EBT.
2. Retailer Cancels Charges related to Cancelled Meter Readings: The current Retailer shall cancel their charges by forwarding an EBT Invoice Cancel transaction for each original Invoice transaction sent. The Distributor will reject Invoice Cancel transactions from all previous Retailers.
3. (Conditional) Distributor Sends Corrected Meter Readings: Distributor will forward one new Usage transaction to the current Retailer for the applicable period of time. Corrected usage data older than 12 months and/or corrected usage involving prior Retailers shall be communicated by a method other than EBT.
4. Bill Ready Bill Data: Within two (2) business days of Step 3, the current Retailer shall forward to the Distributor one Billing transaction for each Usage transaction. Any Invoice transactions received after the two-day window will be rejected by the Distributor using the Application Advice transaction. When the Invoice is rejected, the Retailer will be required to send multiple Invoice transactions the following month, one for the rejected Invoice and one for the current month's charges. Additionally, Invoice transactions received from all previous Retailers will be rejected.

Cancel/Rebill Procedure – Distributor Consolidated Billing Option – Rate Ready

1. (Conditional) Distributor Cancels Meter Readings: Distributor will forward one Usage Cancel transaction for each billing period being cancelled to the current Retailer. Usage Cancellation transactions older than 12 months and/or cancellations involving prior Retailers shall be communicated by a method other than EBT.
2. (Conditional) Distributor Cancels Charges related to Cancelled Meter Readings: Distributor will forward one Invoice Cancel transaction for each billing period being cancelled to the current Retailer. Invoice Cancellation transactions older than 12 months shall be communicated by a method other than EBT. Distributor will NOT send Invoice Cancel transactions to prior Retailers.
3. (Conditional) Distributor Sends Corrected Meter Readings: Distributor will forward one new Usage transaction to the current Retailer for the applicable period of time. Corrected usage data older than 12 months and/or corrected usage involving prior Retailers shall be communicated by a method other than EBT.
4. Distributor Sends Corrected Charges: Distributor will forward one new Invoice transaction to the current Retailer for the applicable period of time. Corrected charges older than 12 months shall be communicated by a method other than EBT.

Cancel/Rebill Procedure – Retailer Consolidated Billing Option – Bill Ready

1. (Conditional) Distributor Cancels Meter Readings: Distributor will forward one Usage Cancel transaction for each billing period being cancelled to the current Retailer. Usage Cancellation transactions older than 12 months and/or cancellations involving prior Retailers shall be communicated by a method other than EBT.
2. Distributor Cancels Charges related to Cancelled Meter Readings: The current Distributor shall cancel their charges by forwarding an EBT Invoice Cancel transaction for each original Invoice transaction sent. The Retailer will reject Invoice Cancel transactions from all previous Distributors.
3. (Conditional) Distributor Sends Corrected Meter Readings: Distributor will forward one new Usage transaction to the current Retailer for the applicable period of time. Corrected usage data older than 12 months and/or corrected usage involving prior Retailers shall be communicated by a method other than EBT.
4. Bill Ready Bill Data: Within two (2) business days of Step 3, the current Distributor shall forward to the Retailer one Billing transaction for each Usage transaction. Any Invoice transactions received after the two-day window will be rejected by the Retailer using the Application Advice transaction. When the Invoice is rejected, the

Distributor will be required to send multiple Invoice transactions the following month, one for the rejected Invoice and one for the current month's charges. Additionally, Invoice transactions received from all previous Distributors will be rejected.

Cancel/Rebill Procedure – Retailer Consolidated Billing Option – Rate Ready

1. (Conditional) Distributor Cancels Meter Readings: Distributor will forward one Usage Cancel transaction for each billing period being cancelled to the current Retailer. Usage Cancellation transactions older than 12 months and/or cancellations involving prior Retailers shall be communicated by a method other than EBT.
2. (Conditional) Retailer Cancels Charges related to Cancelled Meter Readings: Retailer will forward one Invoice Cancel transaction for each billing period being cancelled to the current Distributor. Invoice Cancellation transactions older than 12 months shall be communicated by a method other than EBT. Retailer will NOT send Invoice Cancel transactions to prior Distributors.
3. (Conditional) Distributor Sends Corrected Meter Readings: Distributor will forward one new Usage transaction to the current Retailer for the applicable period of time. Corrected usage data older than 12 months and/or corrected usage involving prior Retailers shall be communicated by a method other than EBT.
4. Retailer Sends Corrected Charges: Retailer will forward one new Invoice transaction to the current Distributor for the applicable period of time. Corrected charges older than 12 months shall be communicated by a method other than EBT.

Cancel/Rebill Procedure – Settlement Invoice

1. (Conditional) Distributor “Cancels” Settlement Invoice: Distributor will forward one Settlement Invoice transaction that reverses the invoice to be “cancelled” for each billing period being “cancelled” to the current Retailer. Settlement Invoice transactions older than 12 months shall be communicated by a method other than EBT. Distributor will NOT send Settlement Invoice transactions to prior Retailers.
2. Distributor Rebills Settlement Invoice: Distributor will forward one new Settlement Invoice transaction to the current Retailer for the applicable period of time. Corrected Settlement Invoice data older than 12 months and/or corrected Settlement Invoice involving prior Retailers shall be communicated by a method other than EBT.

Cancel/Rebill Procedure – Market Participant Invoice

1. (Conditional) Distributor/Retailer “Cancels” Invoice: Distributor/Retailer will forward one Invoice Market Participant transaction to reverse each Invoice affected to the Distributor/Retailer. Invoice Market Participant transactions older than 12 months shall be communicated by a method other than EBT. Distributor/Retailer will NOT send Invoice Market Participant transactions to Distributor/Retailers without a valid service agreement.
2. Distributor/Retailer Rebills Invoice: Distributor/Retailer will forward one new Invoice transaction to the Distributor/Retailer for the applicable period of time. Corrected Invoice data older than 12 months shall be communicated by a method other than EBT.

Cancel/Rebill Procedure -- Over Bill Option Changes

Any cancel/rebill that pertains to a prior billing option change will be done outside the EBT system.

Cancel/Rebill Procedure -- Prior Retailers and Distributors

Any cancel/rebill that pertains to a prior Market Participant will be done outside the EBT system.

Correction of Taxes

The billing party will be responsible for the correction and settlement of all taxes to the government. The taxes in a transaction have to be listed and applied at the structural level within the transaction where the charge is actually listed. See Section 5.3.6 Invoice – Settlement under “Billing of Taxes” for further information.

5.4 Payment Advice

The sections below define the definition/purpose, flow, response, and business rules around implementing any type of Payment Advice. The types of Payment Advice transactions that are specified in the Retail Settlements Code:

- Settlement Invoice
- Market Participant Invoice

The above Settlement Invoice Payment Advice can be sent in the following manner. The Market Participant Invoice will be the “Payment Advice Total” transaction only.

“Payment Advice Total” transaction includes just the summarized total that is to be paid by the Trading Partner for a given Consumer’s billing cycle.

“Payment Advice Detail” transaction contains only one Consumer per transaction. This is sent if individual information is needed on an individual Consumer level. If it is used, it has a Payment cross reference number back to the “Payment Advice Total” transaction for the Trading Partner to match up.

5.4.1 Payment Advice – Settlement Billing

Definition/purpose

This is a transaction to let either the Distributor or Retailer know when and how to expect their payment of the Settlement Invoice. The payment due date is the same as the Consumer bill.

Flow

On the due date of payment, the Distributor or Retailer forwards the Payment Advice to the other party. The actual payment will be sent according to the Payment Advice. The options are “Direct Deposit”, “Wire Transfer”, and “Cheque”. See flow PA-1 for details.

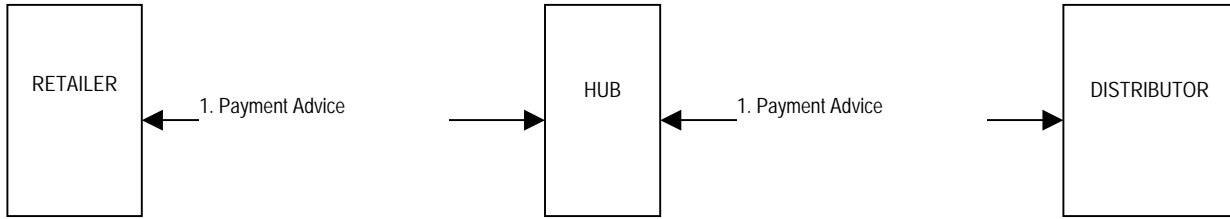
Response

Once the Distributor or Retailer receives this transaction, they send an Application Advice back to the other party stating that it was either accepted or rejected. This Application Advice is sent no later than two business days after the receipt of the Payment Advice transaction.

Rules

Payments are made based on the amount and due date of the Settlement Invoice.

TRANSACTION FLOW PA-1: Settlement Payment Advice



*****Application Advice must be sent on all above transactions to indicate an accept or reject of the transaction.**

Flow:

1. Retailer validates Invoice and Distributor forwards Payment Advice (Total and/or Detail) to the Retailer if payment is due to the Retailer. If monies are owed to the Distributor, then the Retailer forwards the Payment Advice (Total and/or Detail) to the Distributor.

Rules:

Either Retailer or Distributor can send Settlement Payment Advice (Total and/or Detail), so this process flow is bi-directional.

5.4.2 Payment Advice – Market Participant

Definition/purpose

This is a transaction to let either the Distributor or Retailer know when and how to expect their payment on their portion of the Market Participant Invoice. The only Payment Advice transaction allowed for this is the “Payment Advice Total”. The payment due date is decided upon by Trading Partners and defined in their Service Agreement.

Flow

On the due date of payment, the Distributor or Retailer forwards the Payment Advice to the other party. The actual payment will be sent according to the Payment Advice. The options are “Direct Deposit”, “Wire Transfer”, and “Cheque”. See flow PA-2 for details.

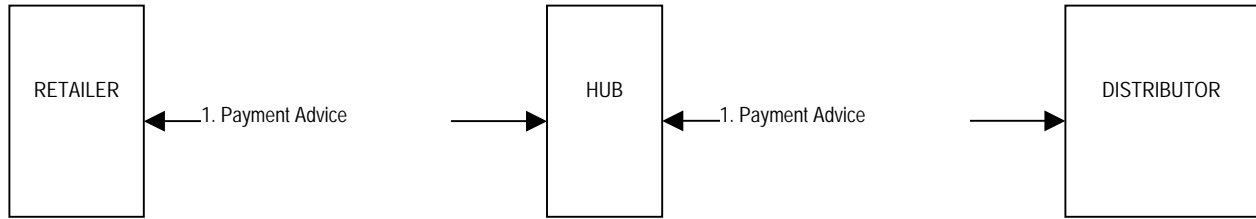
Response

Once the Distributor or Retailer receives this transaction, they send an Application Advice back to the other party stating that it was either accepted or rejected. This Application Advice is sent no later than two business days after the receipt of the Payment Advice transaction from the Trading Partner that sent the Payment Advice.

Rules

Payments are made based on the amount and due date of the Market Participant Invoice.

**TRANSACTION FLOW PA-2:
Market Participant Payment Advice**



*****Application Advice must be sent on all above transactions to indicate an accept or reject of the transaction.**

Flow:

1. Market Participant validates Invoice and forwards Payment Advice (Total only) to the other Market Participant.

Rules:

Either Retailer or Distributor can send Market Participant Payment Advice (Total only), so this process flow is bi-directional.

5.5 Net System Load Shape Daily

Definition/Purpose

The NSLS Daily transaction provides net system load shape (NSLS) information from a Distributor to a Retailer. The Distributor must transmit a particular day's NSLS to all the Retailers operating within its territory no later than three business days after receiving the preliminary daily statement data from the IMO.

Flow

The NSLS Daily transaction is a one-way posting from a Distributor to a Retailer.

Data

The NSLS Daily transaction uses the units of kWh for usage and cents per kWh for price. Prices should be provided to three decimal places. An example of conversion - \$1,499.99 per MWh becomes 0149.999 cents per kWh.

The NSLS Daily transaction provides the ability to convey information for many zones within a Distributor's territory. Initially, the vast majority of Distributors will only have a single zone. For each zone there are 24 samples of total consumption data for the zone and the corresponding spot price. Each sample given in the transaction represents an hour of the day beginning with the hour between midnight and 1:00am EST.

Response

No form of an acknowledge transaction such as an Application Advice response is required for this transaction. The only response back from a NSLS Daily transaction will be a Functional Acknowledgement.

Rules

Any NSLS information re-sent for a specific day will replace all older copies of the data. Because of this, no cancel transaction is required. To correct invalid data, the Distributor simply creates a new NSLS Daily transaction with valid data and re-sends this to the Retailers.

5.6 CSV Transport

Definition/Purpose

The CSV Transport transaction allows the transmission of Comma Separated Value (CSV) data through the EBT infrastructure to ensure proper logging, security and archiving as required by the EBT Standards. Sending CSV files outside the EBT system using email may compromise the security of any confidential data being sent.

This transaction is intended to be used temporarily to transmit data between Distributors and Retailers in reaction to situations requiring rapid changes to the EBT system while proper XML-based EBT transaction changes are developed, implemented and tested.

Flow

The CSV Transport transaction can be sent from Distributor to Retailer or from Retailer to Distributor. This transaction can be used for purposes that are defined and approved by the industry using the normal method of Working Group development and Working Group, Advisory Committee and OEB approval. This transaction can also be used between any pair of Retailer and Distributor market participants by their mutual definition and agreement.

Data

This transaction will transport CSV data in a secure manner using the EBT system. No specific uses for the CSV Transaction have been approved. When specific uses are approved, the global issue defining the use will also define the data format and conventions to be used.

The CSV Transaction can also be used by any pair of Distributor and Retailer market participants by their mutual agreement. In this situation, it is up to the market participants to define the data formats and conventions to be used.

For recipients of the CSV Transport transaction, it is anticipated that tools would be developed for the recipient's spoke or point that would enable placing CSV data into a folder for manual processing. For senders of CSV Transport transactions, it is similarly anticipated that tools would be developed for the sender's spoke or point to enable loading of CSV data into the CSV Transport transaction. In some cases, market participants may automate the processing of CSV data, and may wish to pass the CSV data to and from their CIS for that purpose.

Response

No response is defined at the application level for this transaction. The usual Functional Acknowledgement shall be returned at the transport level as with all transactions.

Rules

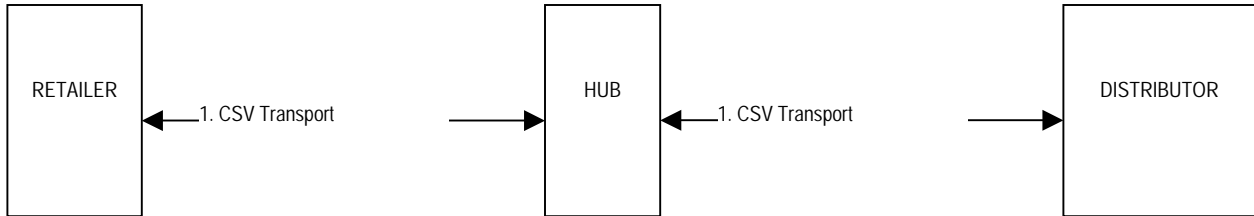
The CSV Transport transaction is intended to be used temporarily when new market requirements dictate that data needs to be sent between market participants during the period when proper XML-based transaction changes are being developed and

implemented. In this case, a plan to develop the proper XML-based EBT transaction changes should be documented together with the details for the CSV Transport solution.

The transaction may also be used to transmit data for temporary situations where the cost of developing and implementing modifications to the XML-based transactions is not warranted.

When a pair of trading partners mutually agrees to use the CSV Transport transaction for their own defined purposes, it is suggested that the GlobalIssue attribute be set to 754 for this use.

TRANSACTION FLOW CSV-1: CSV Transport



*****There is no Application Advice to be sent for the above transactions to indicate an accept or reject of the transaction.**

Flow:

Market Participant sends CSV Transport to the other Market Participant. No response other than Functional Acknowledgement is expected.

Rules:

Either Retailer or Distributor can send CSV Transport, so this process flow is bi-directional.

5.7 Application Advice

The sections below define the definition/purpose, flow, response and business rules around implementing the Application Advice. This transaction is in response and returned by the recipient for every Meter Data, Invoice and Payment Advice transaction to notify the sender that the transaction was either accepted or rejected at their application level. If the transaction was accepted, no further action is needed. If the transaction is rejected, the originator of the transaction must send a corrected transaction.

Definition/purpose

This is an application level transaction that is in response to a Meter Data, Invoice and/or Payment Advice transaction to acknowledge whether the transaction was either accepted or rejected within the receiver's system.

Flow

The Trading Partner sends a Meter Data, Invoice, or Payment Advice to the other Trading Partner. The originating Trading Partner will get an Application Advice for each one of the transactions that was sent. See flow AA-1 for details.

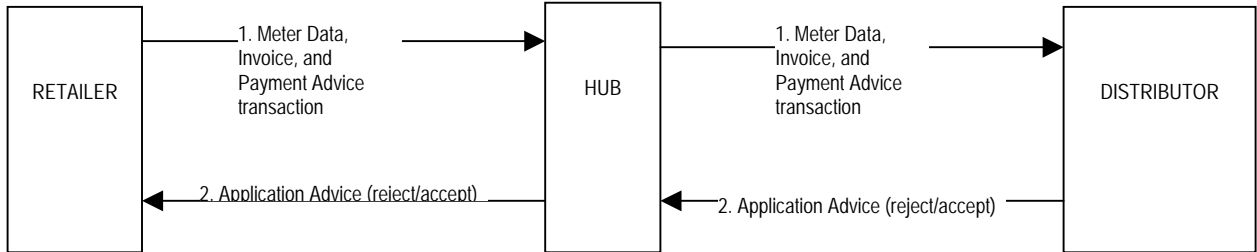
Response

The only response back from an Application Advice will be a Functional Acknowledgement because the Application Advice is a response transaction.

Rules

An Application Advice must be sent no later than two business days after each Meter Data, Invoice, and Payment Advice transaction. Both Retailers and Distributors can send an Application Advice.

**TRANSACTION FLOW AA-1:
Application Advice
“Reject or Accept”**



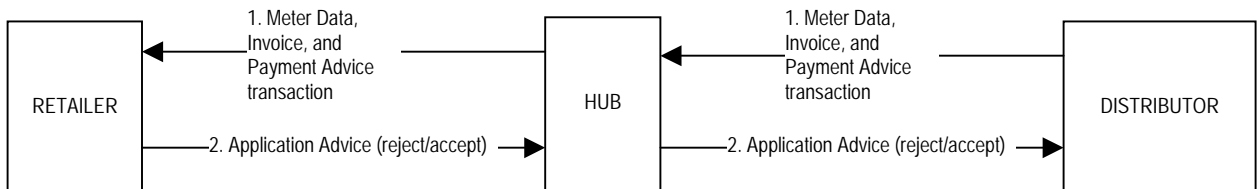
Flow:

1. The Retailer will send an EBT (Meter Data, Invoice and Payment Advice) to the Distributor.
2. The Distributor will return to the Retailer an Application Advice (reject/accept) in response to each EBT (Meter Data, Invoice and Payment Advice).

Rules:

1. Application Advice is sent no later than 2 business days after receipt of each Meter Data, Invoice, and Payment Advice transaction.
2. Both Retailer and Distributor will send an Application Advice, so this process flow is bi-directional.

**TRANSACTION FLOW AA-2:
Application Advice
“Reject or Accept”**



Flow:

1. The Distributor will send an EBT (Meter Data, Invoice and Payment Advice) to the Retailer.
2. The Retailer will return to the Distributor an Application Advice (reject/accept) in response to each EBT (Meter Data, Invoice and Payment Advice).

Rules:

1. Application Advice is sent no later than 2 business days after receipt of each Meter Data, Invoice, and Payment Advice transaction.
2. Both Retailer and Distributor will send an Application Advice, so this process flow is bi-directional.

5.8 Status Advice

Definition/Purpose

The Status Advice (SA) transaction is used by a Trading Partner for an informational change in status/response to an originating STR or Meter Data transaction. The SA is sent on an as needed basis. It contains contact information, effective processing dates and descriptions of status changes.

Flow

The Status Advice may flow from any Trading Partner to any other Trading Partner. For an example, see the flows in the STR and Meter Data sections.

Data

The information contained in the Status Advice includes the status codes, the reference to an Original Transaction Reference Number if appropriate, new effective date, and any contact information that may assist the recipient. Some example reasons for the Status Advice include:

Contest Period Over-Lost

This Status advice is sent by a Distributor to inform a losing Retailer that the 20-day contest is now closed. The effective date field should be loaded with the date that the contest period ended. Examples of its use can be found under STR-3 and STR-4.

Contest Period Over-Won

This Status advice is sent by a Distributor to inform a winning Retailer that the 20-day contest is now closed. The effective date field should be loaded with the date that the contest period ended. Examples of its use can be found under STR-3 and STR-4.

Change Consumer Location

This Status advice can be sent by the current Retailer to inform the Distributor that the Consumer is moving. The effective date field should be loaded with the date that the Consumer will disconnect from the old service. Examples of its use can be found under STR-21.

New Effective Date

This Status advice can be sent by any party to modify a previously arranged effective date. The effective date field should be loaded with the new expected operation date for the transaction. For example, this transaction can be used to change the effective date of a meter read, power flow date, or drop date. Any scheduled date can be modified through the use of this status advice. Examples include STR-20, STR-22, STR-24, STR-25 (Change Consumer Location), STR-26 (Drop to SSS), and MDT-6 (Historical usage request). In the event that a Retailer should choose to consider transmitting SA-NED

transactions, a Global Item should be opened by the Working Group to outline business rules and example flows for acceptance.

Notice of Pending Switch

This Status advice is sent by a Distributor to inform the current or prospective Retailer that a contest for a Consumer is starting. The date of this notice begins the 20-day hold period also known as the contest period. The effective date field should be populated with the proposed switch date. Examples of its use can be found under STR-3 through STR-7, inclusive.

Terminate Transfer Request

This Status advice can be sent by any party to terminate a previously requested activity, if allowed. For example, it can be used:

- As a notice that the Consumer has informed whoever sends this Status Advice that the Consumer wants to cancel the switch request and remain with Retailer A; or
- To cancel a request for enrolment before the power has begun to flow with the new Retailer.

The effective date field should be loaded with the date that the original transaction was cancelled. Examples of its use can be found under STR-5, STR-6, and STR-7 (for Enrol Request), STR-20 (for Consumer Change Location), STR-28 (for drop to SSS).

The Status Advice contains contact information to be used when the request comes from the Consumer and may need to be validated by the other party. It also contains contact information for resolution with specific Account Managers at the Retailer or the Distributor. Validation occurs for only the "Account Validator".

Response

The only response back from a Status Advice will be a Functional Acknowledgement. Therefore, the party receiving the SA transaction has no means by which to acknowledge receipt of a valid transaction, nor to acknowledge receipt of an invalid transaction, back to the sender of the SA. Conversely, the sender of the SA transaction does not receive a positive acknowledgement that the SA has been received by the intended party, or whether the transaction is acceptable or has failed for any reason.

The responsibility for identifying errors or exceptions with the processing of Status Advice transactions lies solely with the party who has received the transaction. Where an SA fails, either with the content of a given SA transaction, or where the SA has been sent in error, the receiver should notify the sender of the transaction. Once the sender has been notified, the receiver may continue processing as if the transaction had never been received. The sender and the receiver should resolve the discrepancy in a mutually agreeable manner.

Rules

When the Status Advice is sent to a third party (not the originator) the original transaction number is “blocked”. This prevents the sharing of one Trading Partner’s information with another Trading Partner in a possibly inappropriate manner.

Use of the Original Transaction Reference Number Field

The Original Transaction Reference Number Field is required when the Status Advice is part of a series of transactions with a specific trading partner. The original transaction reference number must be one that the receiver can know of and associate to the status advice. This is an issue during contests when there are two Retailers involved, as only one of them knows of the enrol request causing the contest.

The reference to the Original Transaction Reference Number must be supplied unless the Status Advice being sent is starting the transaction flow (for example, in the case of the Notice of Pending Switch sent to the current Retailer to notify of the start of a contest). In this case, there is no Original Transaction Reference Number preceding this Status Advice. Consequently, the Original Transaction Reference Number is “optional” in the schemas, even though it is “mandatory” if an Original Transaction Reference Number does exist. This conditional logic (i.e. “mandatory” if it exists, “optional” if it does not exist) cannot be expressed in the schemas in any other way than declaring the item “optional”.

The table below (see Table 1) contains the complete set of Status Advice scenarios and which transaction reference number should be used as the Original Transaction Reference Number. Certain Status Advice transactions can have different Original Transaction Reference Numbers, depending upon the relationship of sender and receiver. Those transactions have multiple listings in the table.

Table 1

	Status Advice	Situation	Sender	Receiver	Original Transaction Reference Number document
1	New Effective Date	Any time a scheduled date has to be adjusted	Distributor Retailer	Retailer Distributor	The Transaction Reference Number of the transaction that started the sequence of events, such as the Enrol Request from the Retailer, or the Drop Request from either the Retailer or the Distributor. In a contest, <ul style="list-style-type: none"> • If there is a change to the date for the CPO Won for Retailer B, then the SA NED will reference the Enrol Request • If the current Retailer gets the CPO, the SA NED references the NPS transaction.
2	Change Consumer Location	Notify Distributor of Consumer's change of location	Current Retailer	Distributor	No Original Transaction Number
3	Notice of Pending Switch	Notify <u>current</u> Retailer of contest	Distributor	Current Retailer	No Original Transaction Number. (This is the originating notification transaction the Contest process).
4	Notice of Pending Switch	Notify <u>prospective</u> Retailer of contest	Distributor	Prospective Retailer	Transaction Reference Number of the prospective Retailer's Enrol Request.
5	Contest Period Over	Notify <u>current</u> Retailer of contest period over	Distributor	Current Retailer	Notice of Pending Switch originally sent to current Retailer.
6	Contest Period Over	Notify <u>prospective</u> Retailer of contest period over	Distributor	Prospective Retailer	Enrol Request sent by prospective Retailer
7	Terminate Transfer Request	Notify <u>current</u> Retailer of switch cancellation	Distributor	Current Retailer	Notice of Pending Switch transaction originally sent to current Retailer.
8	Terminate Transfer Request	Notify <u>prospective</u> Retailer of switch cancellation	Distributor	Prospective Retailer	Enrol Request sent by prospective Retailer
9	Terminate Transfer Request	Notify Distributor of cancellation of switch	Current Retailer	Distributor	Notice of Pending Switch transaction originally sent to current Retailer.
10	Terminate Transfer Request	Notify Distributor of cancellation of switch	Prospective Retailer	Distributor	Enrol Request transaction sent by prospective Retailer.
11	Terminate Transfer Request	To cancel an accepted Change Consumer Location Request	Distributor only	Retailer only	Transaction Number of the Change Consumer Location Request transaction that is being rescinded.
12	Terminate Transfer Request	To cancel a previously sent SA CCL	Retailer Only	Distributor Only	Transaction Reference Number of the SA CCL
13	Terminate Transfer Request	To cancel a Drop Request	Distributor Retailer	Retailer Distributor	The Transaction number of the Drop Request Transaction
14	Terminate Transfer Request	To cancel a previously sent SA TTR	Distributor Retailer	Retailer Distributor	This is not allowed.

5.9 Functional Acknowledgement

The sections below define the definition/purpose, flow, response, and business rules around implementing the Functional Acknowledgement. Every Trading Partner and the Hubs send this transaction for every PIPE Document (which contains one or more PIP Transactions i.e.: STR, Meter Data, Invoice, Payment Advice, and Application Advice transactions) that is received by them.

Purpose/Definition

The Functional Acknowledgement transaction is used to indicate the results of the syntactical analysis of the XML encoded PIPE document as well as validation of the Trading Partner (i.e. is this a valid trading partner). This transaction does not cover the semantic meaning of the information contained in the transaction sets. The result of the transaction is to notify the Trading Partners and the Hubs that the PIPE Document was either “accepted” or “rejected” at either the PIPE Document or PIP Transaction level due to the syntactical analysis of the document content as well as other Trading Partner validations. A PIPE Document contains one or more PIP Transactions (e.g., STR, Meter Data, Invoice, Payment Advice, and Application Advice transactions). There are three levels of the Functional Acknowledgement:

- A PIPE Document is “accepted” when no further action is needed. (PIPE document can contain one or more PIP transactions.)
- A PIPE Document is “rejected” when the document is not readable and the sender of this document needs to resubmit the document.
- A PIPE Document partial acceptance is sent when the overall PIPE Document is readable, but contains at least one rejected PIP Transaction. The partial acceptance will indicate the specific PIP transactions that are rejected with reject reasons. The partial acceptance will also indicate all PIP transactions (*STR, Meter Data, Invoice, Payment Advice, and Application Advice transactions*) that are accepted as well.

Flow

The Functional Acknowledgement is sent by each recipient (being the Trading Partner as well as the Hubs) of a PIPE Document (PIPE document can contain one or more PIP transactions). See flow FA-1 and FA-2 for details.

Data

Each PIPE Document has a reference number assigned by the originator that uniquely identifies the document. The Functional Acknowledgement identifies this PIPE Document reference number on all correspondence. Also within each PIPE Document, each PIP Transaction will have a transaction reference number assigned to it as well. This number will be used in the event of a partial “accept” and/or “reject” of a Functional Acknowledgement.

It is a requirement that participants entering the Ontario Electricity Market as of October 1, 2003 shall use a document reference number such that the sender of the document is uniquely identifiable. One possible method that could be used to achieve this requirement is to include the market participant's OEB License Number (which is unique to that market participant) in the document reference number. Market Participant OEB License Numbers can be found using the reference in Appendix A.

Rules

A Functional Acknowledgement will be sent from the Hub within four business hours of receipt of the PIPE Document. A Functional Acknowledgement from the Trading Partner will be sent within one business day from the day of receipt of the original transaction. A Functional Acknowledgement is sent in response to each PIPE Document that is sent between the Trading Partner and a Hub.

The originator of the Functional Acknowledgement is the entity that last received the file.

- Rule 1: When a Hub is required to send a Functional Acknowledgement in response to a PIPE Document, the sending Hub should fill in the sender field with sending Hub's name, the sending Hub's pseudo OEB-licence number and a participant type of 'hub'.
- Rule 2: Likewise for situations where a trading partner is sending a Functional Acknowledgement to a Hub, the originating trading partner should fill in the recipient field with the destination Hub's name, the destination Hub's pseudo OEB-licence number and a participant type of 'hub'.

The above rules apply in the following cases:

- When a Hub is sending a Functional Acknowledgement to a Spoke or Point, apply rule 1.
- When a Spoke or Point is sending a Functional Acknowledgement to a Hub, apply rule 2.
- When a Functional Acknowledgement is being sent from one Hub to another, apply both rules.

A document reject Functional Acknowledge is used where all transactions are bad in the originating PIPE Document.

The full set of rules for the Functional Acknowledgement transaction (FA) is:

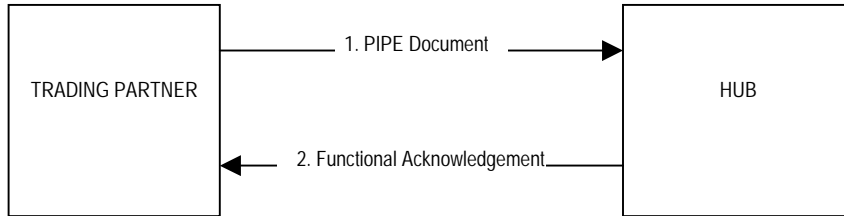
Accept FA: Used when all transactions are good. In Hub situations, the Hub will forward all transactions.

DocReject FA: Used when the EBT PIPE Document cannot be read. In Hub situations this is also used when all transactions are bad and the Hub is forwarding none of the transactions. As much detail with respect to each transaction

is presented in the FA, including errors for each of the transactions if all failed.

Partial FA: Used when there is a mix of good and bad transactions. In Hub situations, the Hub will only forward the good transactions. There are elements describing each transaction and whether it was good or failed. A Hub will remove messages that fail XML validation against the relevant schema from the EBT document before placing it in the intended recipient's mailbox. These messages will be acknowledged in a PIPEFunctionalAcknowledgement of type partial

**TRANSACTION FLOW FA-1:
Functional Acknowledgement**



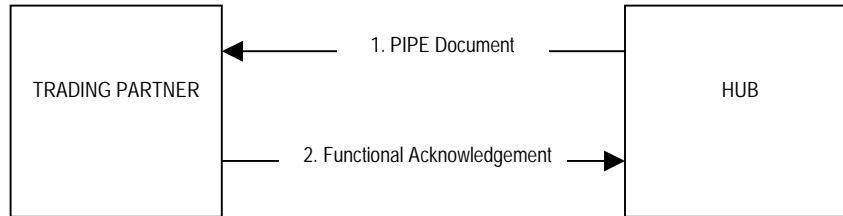
Flow:

1. The Trading Partner sends a PIPE Document (which contains one or more PIP Transactions i.e.: STR, Meter Data, Invoice, Payment Advice, and Application Advice transactions) to a Hub.
2. The Hub will send back to the Trading Partner a Functional Acknowledgement that states at which of the three levels the PIPE Document was either “accepted” or “rejected”.

Rules:

Trading Partners and the Hubs must send a Functional Acknowledgment for all PIPE Documents that are received.

TRANSACTION FLOW FA-2: Functional Acknowledgement



Flow:

1. A Hub sends a PIPE Document (which contains one or more PIP Transactions i.e.: STR, Meter Data, Invoice, Payment Advice, and Application Advice transactions) to the Trading Partner.
2. The Trading Partner will send back to the Hub a Functional Acknowledgement that states at which of the three levels the PIPE Document was either “accepted” or “rejected”.

Rules:

Trading Partners and the Hubs must send a Functional Acknowledgment for all PIPE Documents that are received.

Appendix A:

References

APPENDIX A: REFERENCES

1. Retail Settlement Code

Access the OEB Site, www.oeb.gov.on.ca . Once on their page you will find the Code by selecting the “Quick Link” option “Rules, Guidelines and Forms”, then selecting “Electricity” under “Regulatory Instruments”. A link to the document can be found under “Retail Settlement Code”.

2. Original OEB License Numbers for Market Participants

The original OEB license numbers assigned to market participants at market opening are to be used for processing EBT transactions in spite of any new OEB license numbers that may be assigned. A list of these original license numbers can be found at:

http://www.xmlenergy.net/oeb_ebt_wg/docs/global_issues/GI%20755%20Original%20OEB%20License%20Numbers%20CR.doc

3. Implementation Guides

The Implementation Guides for Ontario’s EBT Standards can be found at:

http://www.xmlenergy.net/oeb_ebt_wg/wg_schemas_guides.htm

4. Schemas

The Schemas for Ontario’s EBT Standards can be found at:

http://www.xmlenergy.net/oeb_ebt_wg/wg_schemas_guides.htm

5. Reject Reasons and Status Codes

The message codes to be used by the Market Participants to communicate reject reasons, drop reasons, status codes etc can be found at:

http://www.xmlenergy.net/oeb_ebt_wg/docs/standards/Appendix%20M%20-%20EBTStdsDocument%20Addendum3.doc

6. BPPR Process and Standard

A description of the process and standard for communication of the Business Protection Plan Rebate (BPPR) information between Distributors and Retailers can be found at:

http://www.xmlenergy.net/oeb_ebt_wg/docs/global_issues/GI%20738%20BPPR%20Part%20B%20File.doc

7. Retroactive Settlement Reconciliation

A method that can be used to reconcile settlement information between Distributors and Retailers for the first 15 months of operation of the Ontario Retail Electricity market can be found at:

http://www.xmlenergy.net/oeb_ebt_wg/docs/global_issues/GI%20751%20Retroactive%20Settlement%20Reconciliation.doc

8. List of Mandatory Transactions

A list of mandatory transactions can be found at:

http://www.xmlenergy.net/oeb_ebt_wg/docs/standards/Mandatory%20and%20Optional%20Transactions.doc. All market participants are expected to use the mandatory transactions to conduct their business in the Ontario Retail Electricity Market. Optional transactions can be used with agreement between the pairs of market participants who would send and receive these transactions.

9. Final IBRs Not Billed and Settled

The details of the manual process and CSV file for dealing with final IBRs that have not been billed and settled can be found at:

http://www.xmlenergy.net/oeb_ebt_wg/docs/global_issues/GI%20741%20Settling%20Final%20IBRs%20not%20Billed.doc

The suggested invoice to the Distributor can be found at:

http://www.xmlenergy.net/oeb_ebt_wg/docs/global_issues/GI%20741%20Invoice%20to%20LDC.xls

A letter received from OEFC clarifying the responsibilities of Retailers and Distributors in using the presented manual method can be found at:

http://www.xmlenergy.net/oeb_ebt_wg/docs/global_issues/GI%20741%20OEFC%20Clarification.doc

10. XML Schema Background

Pending standards for the schema logic can be found at <http://www.w3.org/XML/Schema.html>

11. XML Parsers

While programs may experience different results using different parsers, member companies of the EBT Working Group have used versions of the following XML parsers to validate XML transactions according to the current set of EBT schema. The Working Group cannot guarantee that these parsers will work in all cases, or with future releases of the EBT schema. This list represents a starting point for users when they are selecting a parser for their own use.

- Oracle
- Apache

A list of additional XML parsers may be found at the following web site:

[//www.w3.org/XML/](http://www.w3.org/XML/)

Appendix B:

Relationship Between Distribution Rate Handbook Services And EBTs

Appendix B: Relationship Between Distribution Rate Handbook Services and EBTs

Services from Distribution Rate Handbook	EBT Name for Associated STRs for Request Fee	EBT Name for Associated Processing Fee
A change in electricity supply for a Consumer from SSS to a retailer	EnrollmentRequestBillReadySplit, EnrollmentRequestRateReady (optional)	EnrollmentAcceptBillReadySplit, EnrollmentAcceptRateReady (optional)
A change in electricity supply for a Consumer from one retailer to another	EnrollmentRequestBillReadySplit, EnrollmentRequestRateReady (optional)	EnrollmentAcceptBillReadySplit, EnrollmentAcceptRateReady (optional)
A change in electricity supply for a Consumer from a retailer to SSS	DropRequest (retailer to Distributor only)	DropAccept (Distributor only)
A change in a Consumer’s metering or billing options for Consumers currently served by a retailer	ChangeBillingOptionRequest, MeterRequest (requesting meter change only) (optional)	ChangeBillingOptionAccept, MeterAccept (accepting change request only) (optional)
A change in Consumer location	ChangeConsumerLocationRequest (Distributor to retailer Only)	ChangeConsumerLocationRequest (Retailer to Distributor) Or no response at all (Service takes place anyway)

Appendix C:

Sample Settlement Transaction Flows And ISD and IST Calculations

Appendix C: Sample Settlement Transaction Flows and ISD and IST Calculations

1.0 Examples for Distributor Consolidated Billing ISDs

This section provides example transaction flows and the corresponding ISD transaction details to be captured for settlement. This section does not provide an exhaustive list of all variations possible during transaction processing, nor are all example flows mandatory.

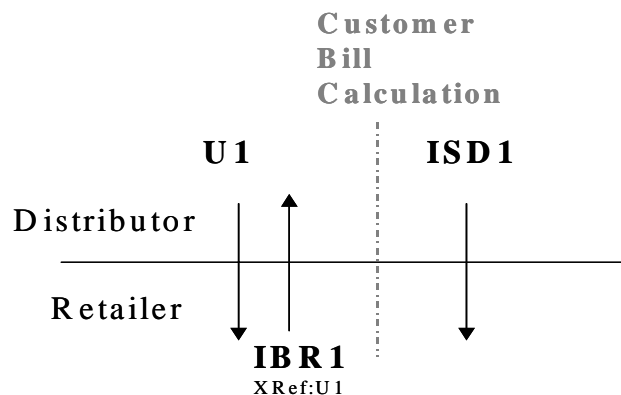
Notes:

1. The examples provided below do not outline all required field values for an ISD transaction but depict the additional requirements/changes introduced in GI 686.
2. The Source Transaction Reference Number column listed below in each example identifies the transaction to which the Source Transaction Reference Number should be captured.
3. Amounts are fictitious and used as example values for the purpose of illustration.
4. Retailer pricing is set at \$0.05/kWh.
5. Example 1 (Section 1.1) depicts the ISD for both Tax presentation options 1 and 2. All other examples provide the example for Tax presentation Option 1 only (although both options are available). Tax presentation options are described in Section 5.3.6 under heading “Billing of Taxes”.
6. For the transaction process flow diagrams in the examples that follow;
 - a. ORef: is defined as the transaction to be referenced in the ‘Original Transaction Reference Number’ field of the stated transaction.
 - b. XRef: is defined as the transaction to be referenced in the ‘Transaction Cross Reference Number’ field of the stated transaction.

1.1 Example 1- Simple Transaction Flow

Scenario:

- o Consumer with a metered service (using 500 kWh) with a Service period of May 1-15th and an unmetered service (using 100 kWh) with a Service Period of May 16-31st. Both services are captured on one Usage transaction.
- o The WAHSP is different for each service period in this example.



For a Distributor using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD1” would be:

Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U1	0.04635	23.18	1.62
Commodity	U1	0.04578	4.58	0.32
RetailerBillAmount	IBR1		-30.00	0.00

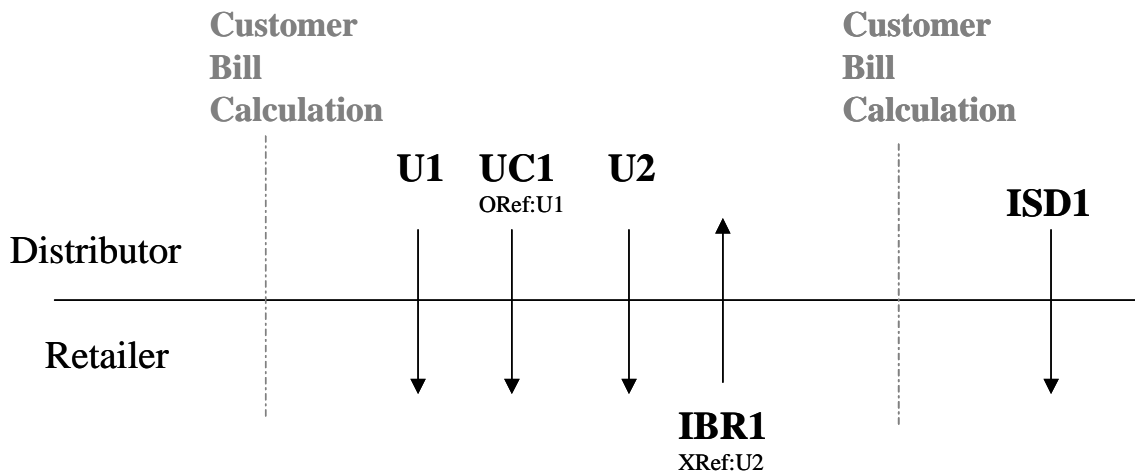
For a Distributor using Tax Option 2, the Account Charges on the Invoice Settlement Detail EBT “ISD1” would be:

Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U1	0.04635	23.18	
Commodity	U1	0.04578	4.58	
RetailerBillAmount	IBR1		-30.00	
Taxes	< Null Value >		0.00	1.94

1.2 Example 2- Usage is Cancelled Before IBR is Sent and New Usage is Sent

Scenario:

- o Consumer with a metered service (using 500 kWh).
- o Usage 1 is cancelled and sent prior to the issuance of an IBR
- o Usage 2 is sent to the Retailer
- o IBR1 is issued in response to Usage 2
- o All transactions occur prior to Billing



For a Distributor using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD1” would be:

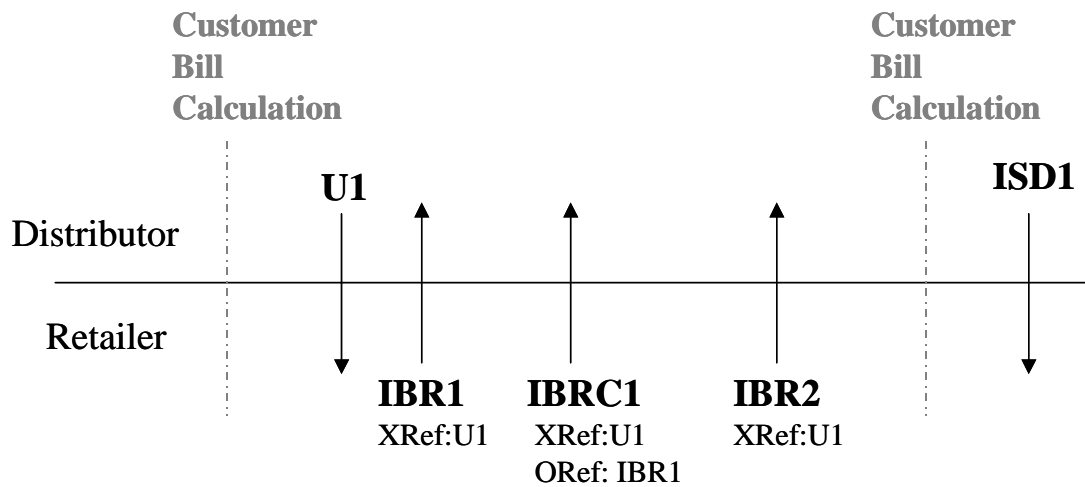
Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U2	0.04635	23.18	1.62
RetailerBillAmount	IBR1		-25.00	0.00

*Note: The original Usage and Usage-Cancel have occurred prior to Billing. There is no net effect on the Bill and therefore they are not captured on the ISD.

1.3 Example 3- IBR Is Cancelled After it is Sent

Scenario:

- o Consumer with a metered service (using 500 kWh).
- o Usage 1 is sent
- o IBR1 is sent in reference to Usage 1
- o IBR1 is then cancelled (IBRC1)
- o Corrected IBR2 is sent in reference to Usage1
- o All transactions occur prior to Billing



For a Distributor using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD1” would be:

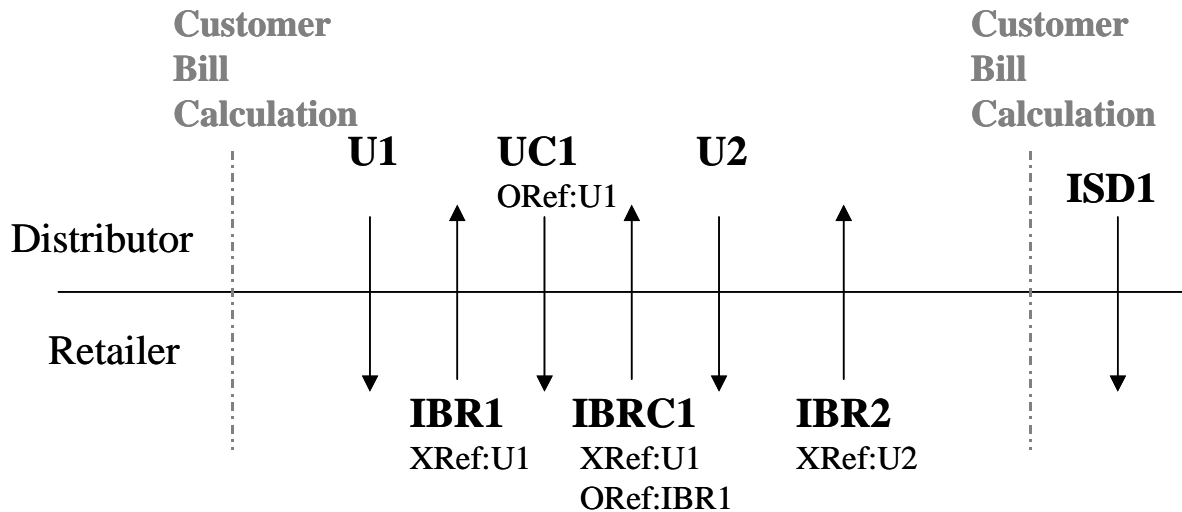
Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U1	0.04635	23.18	1.62
RetailerBillAmount	IBR2		-25.00	0.00

*Note: The original IBR1 and IBR-Cancel have occurred prior to Billing. There is no net effect on the Bill and therefore they are not captured on the ISD.

1.4 Example 4- Usage-Cancel is Sent After the IBR is Sent

Scenario:

- o Consumer with a metered service (using 500 kWh) with a service period of May 1-15th and a second metered service (using 100 kWh) with a service period of May 1-15th, and a third unmetered service (using 300 kWh) with a service period of May 16th-31st.
- o The WAHSP is different for each service period.
- o All services are captured on one Usage transaction.
- o All transactions occur prior to Billing



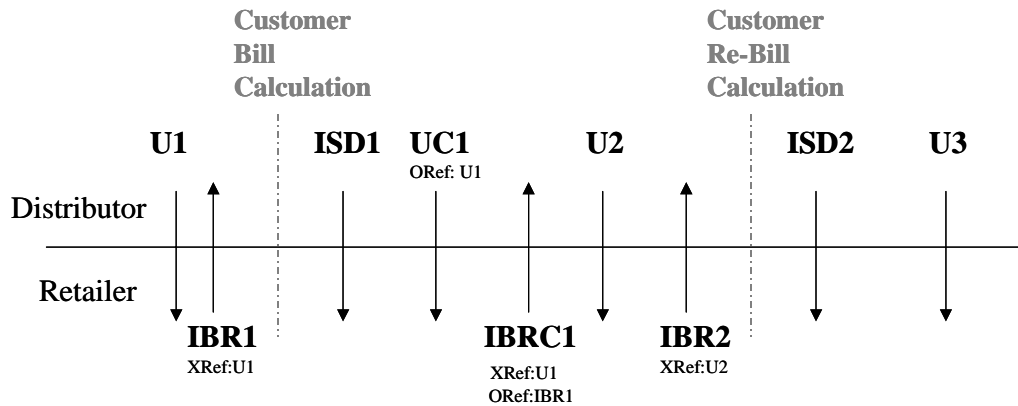
For a Distributor using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD1” would be:

Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U2	0.04635	27.81	1.95
Commodity	U2	0.04578	13.73	0.96
RetailerBillAmount	IBR2		-45.00	0.00

1.5 Example 5- Usage-Cancel Occurs After Billing (ReBill)

Scenario:

- o Consumer with a metered service (using 500 kWh).
- o Usage 1 is issued for 600kWh consumption.(incorrect Usage)
- o Usage 1 is subsequently cancelled after Billing and Settlement occur.
- o Usage 2 is issued for 500 kWh (correct usage)
- o The correction (Usage –Cancel) for Usage 1 does not occur until after Billing and Settlement for that billing cycle.



For a Distributor using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD1” would be:

Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U1	0.04635	27.81	1.95
RetailerBillAmount	IBR1		-30.00	0.00

For a Distributor using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD2” would be:

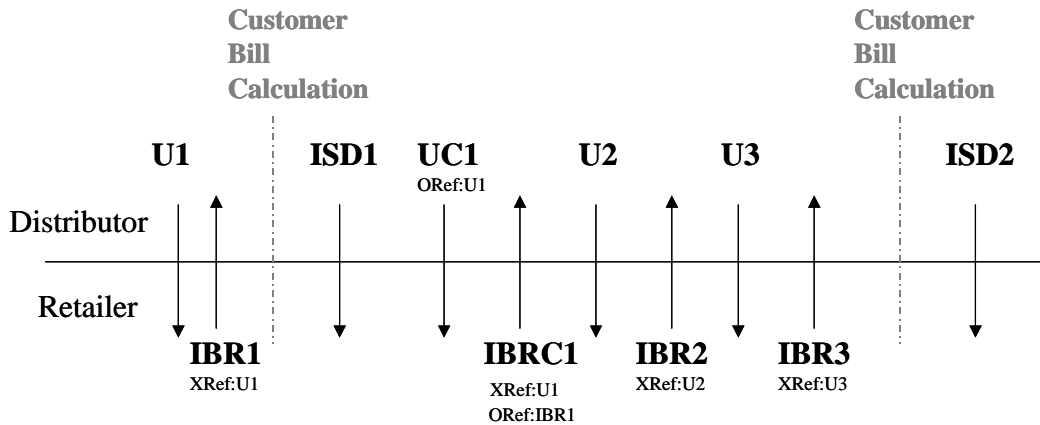
Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	UC1	0.04635	-27.81	-1.95
Commodity	U2	0.04635	23.18	1.62
RetailerBillAmount	IBRC1		30.00	0.00
RetailerBillAmount	IBR2		-25.00	0.00

1.6 Example 6- Usage-Cancel Occurs After Billing (No ReBill)

Scenario:

- o Consumer with a metered service (using 500 kWh).

- o Usage 1 is issued for 600kWh consumption (incorrect Usage)
- o Usage 1 is subsequently cancelled after Billing and Settlement occur.
- o Usage 2 is issued for 500 kWh (correct usage)
- o The correction (Usage –Cancel 1 and Usage 2) does not occur until after Billing and Settlement for that billing cycle.
- o Usage 3 (450 kWh) is issued for the current billing cycle.



For a Distributor using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD1” would be:

Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U1	0.04635	27.81	1.95
RetailerBillAmount	IBR1		-30.00	0.00

For a Distributor using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD2” would be:

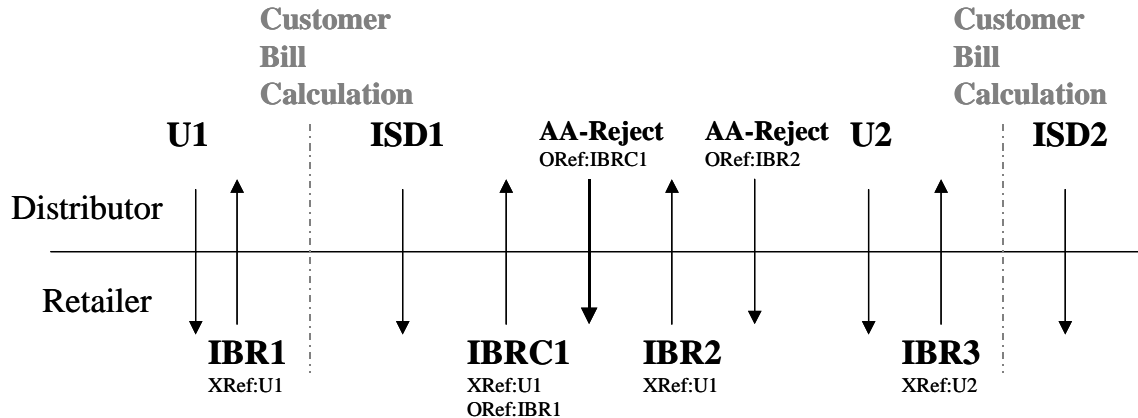
Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	UC1	0.04635	-27.81	-1.95
Commodity	U2	0.04635	23.18	1.62
Commodity	U3	0.04375	19.69	1.38
RetailerBillAmount	IBRC1		30.00	0.00
RetailerBillAmount	IBR2		-25.00	0.00
RetailerBillAmount	IBR3		-22.50	0.00

1.7 Example 7- The IBR is Cancelled after Billing Has Occurred- Rejected

Scenario:

- o Consumer with a metered service (using 500 kWh).
- o Usage 1 is issued for 500 kWh

- o IBR 1 issued to the Distributor with an incorrect bill amount (\$20.00)
- o The Consumer Bill and Settlement process occurs
- o IBR1 is cancelled (IBRC1) post Consumer billing
- o IBR2 issued with the correct bill amount (\$25.00) post Consumer Billing
- o The IBR-Cancel (IBRC1) and IBR2 are rejected by the Distributor
- o Usage 2 is issued for the next service period (500kWh)



For a Distributor using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD1” would be:

Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U1	0.04635	23.18	1.62
RetailerBillAmount	IBR1		-20.00	0.00

For a Distributor using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD2” would be:

Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U2	0.04635	23.18	1.62
RetailerBillAmount	IBR3		-30.00	0.00

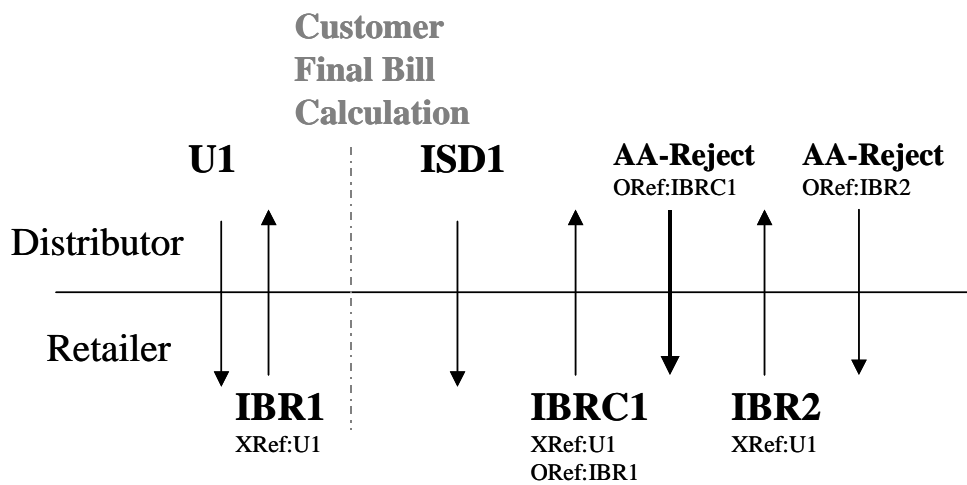
***Note:**

- o IBRC1 and IBR2 will not be settled as the Distributor rejected the correction.
- o The Retailer is responsible to consider this previous adjustment in the calculation of the bill amount provided in IBR3. In the example above, the retailer under-billed \$5.00 on IBR1 and subsequently included this adjustment in the bill amount of IBR3 (25.00 + 5.00 = \$30.00).

1.8 **Example 8- The IBR is Cancelled after Final Billing Has Occurred- Rejected**

Scenario:

- o Consumer with a metered service (using 500 kWh).
- o Final Usage 1 is issued for 500 kWh
- o IBR 1 issued to the Distributor with an incorrect bill amount (\$20.00)
- o The Consumer Bill and Settlement process occurs
- o IBR1 is cancelled (IBRC1) post Consumer billing
- o IBR2 issued with the correct bill amount (\$25.00) post Consumer Billing
- o The IBR-Cancel (IBRC1) and IBR2 are rejected by the Distributor
- o The Consumer has been Final Billed.



For a Distributor using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD1” would be:

Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U1	0.04635	23.18	1.62
RetailerBillAmount	IBR1		-20.00	0.00

***Note:**

- o IBRC1 and IBR2 will not be settled as the Distributor rejected the correction. The Consumer was Final Billed. The Retailer, in this example, has under-billed \$5.00.
- o The Retailer is responsible to manage this adjustment directly with the Consumer.

2.0 Examples for Retailer Consolidated Billing ISDs

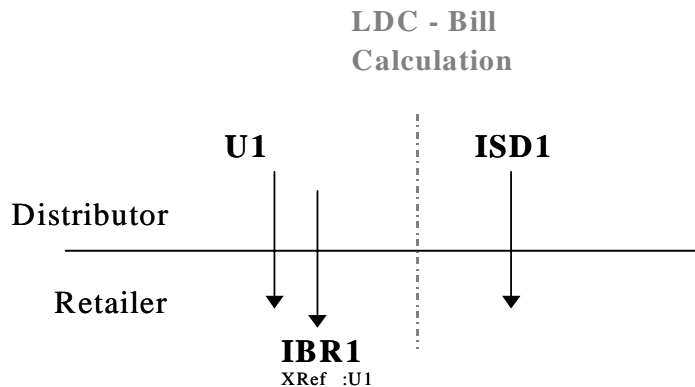
This section provides example transaction flows and the corresponding ISD transaction details to be captured for settlement. This section does not provide an exhaustive list of all variations possible during transaction processing, nor are all example flows mandatory.

Notes:

1. The examples provided below do not outline all required field values for an ISD transaction but depict the additional requirements/changes introduced in GI 686.
2. The Source Transaction Reference Number column listed below in each example identifies the transaction to which the Source Transaction Reference Number should be captured.
3. Amounts are fictitious and used as example values for the purpose of illustration.
4. All examples provide Tax presentation Option 1 only (although both options are available). Tax presentation options (both options) are described in Section 5.3.6 under the heading “Billing of Taxes”.
5. For the transaction process flow diagrams in the examples that follow;
 - a. ORef: is defined as the transaction to be referenced in the ‘Original Transaction Reference Number’ field of the stated transaction.
 - b. XRef: is defined as the transaction to be referenced in the ‘Transaction Cross Reference Number’ field of the stated transaction.
6. In the various examples that follow, we have captured only some Account Charge Categories out of the possible total listed in Section 5.3.6 under the heading “Rules”.

2.1 Example 1- Simple Transaction Flow

Consider this simple Retailer-Consolidated Billing scenario for a Consumer with a metered service (using 500 kWh).



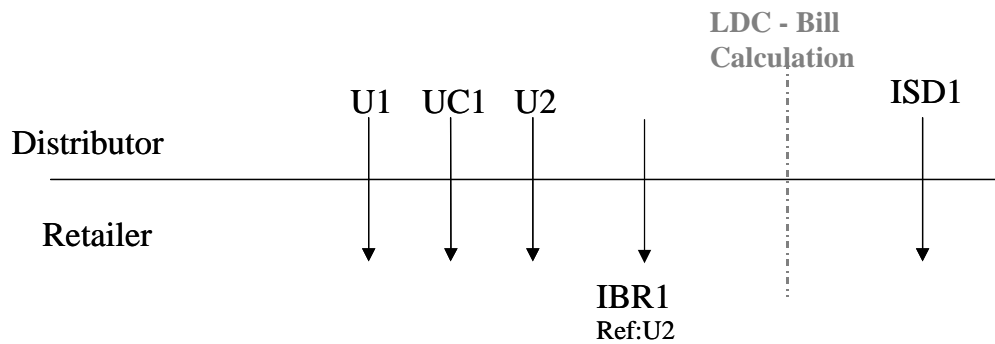
Given that we are exemplifying a Retailer using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD1” would be:

Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U1	0.04635	23.18	1.62
Distribution	IBR1		10.00	0.70
Transmission	IBR1		20.00	1.40
Customer	IBR1		30.00	2.10

2.2 Example 2- Usage is Cancelled Before IBR is Sent and New Usage is Sent

Scenario:

- o Consumer with a metered service (using 500 kWh).
- o Usage 1 is cancelled and sent prior to the issuance of an IBR
- o Usage 2 is sent to the Retailer
- o IBR1 is issued in response to Usage 2
- o All transactions occur prior to ISD1



Given that we are exemplifying a Retailer using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD1” would be:

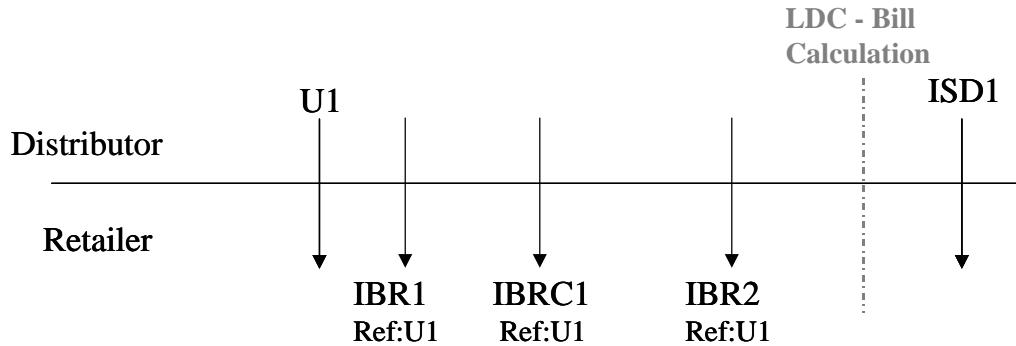
Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U2	0.04635	23.18	1.62
Distribution	IBR1		40.00	2.80
Transmission	IBR1		80.00	5.60
Customer	IBR1		25.00	0.00

*Note: The original Usage and Usage-Cancel have occurred prior to ISD1. There is no net effect on the Consumer’s Bill and therefore they are not captured on the ISD.

2.3 Example 3: IBR Is Cancelled After it is Sent

Scenario:

- o Consumer with a metered service (using 500 kWh).
- o Usage 1 is sent
- o IBR1 is sent in reference to Usage 1
- o IBR1 is then cancelled (IBRC1)
- o Corrected IBR2 is sent in reference to Usage1
- o All transactions occur prior to ISD1



Given that we are exemplifying a Retailer using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD1” would be:

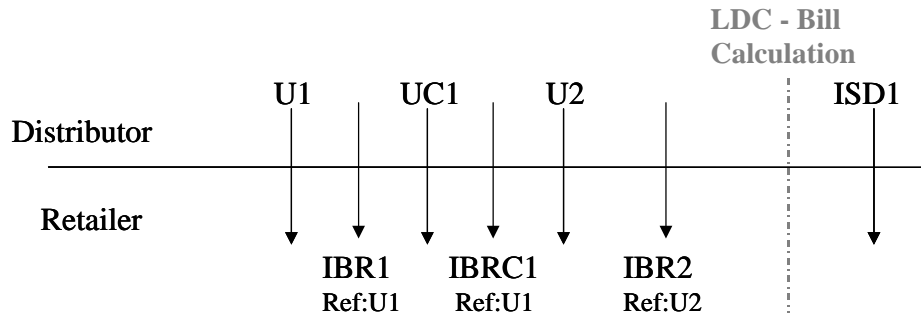
Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U1	0.04635	23.18	1.62
Customer	IBR2		25.00	0.00
Distribution	IBR2		40.00	2.80
Transmission	IBR2		80.00	5.60

*Note: The original IBR1 and IBR-Cancel have occurred prior to ISD1. There is no net effect on the Consumer’s Bill and therefore they are not captured on the ISD.

2.4 Example 4- Usage-Cancel is Sent After the IBR is Sent

Scenario:

- o Consumer with a metered service (using 500 kWh) with a service period of May 1-15th and a second metered service (using 100 kWh) with a service period of May 1-15th, and a third unmetered service (using 300 kWh) with a service period of May 16th-31st.
- o The WAHSP is different for each service period.
- o All services are captured on one Usage transaction.
- o All transactions occur prior to ISD1



Given that we are exemplifying a Retailer using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD1” would be:

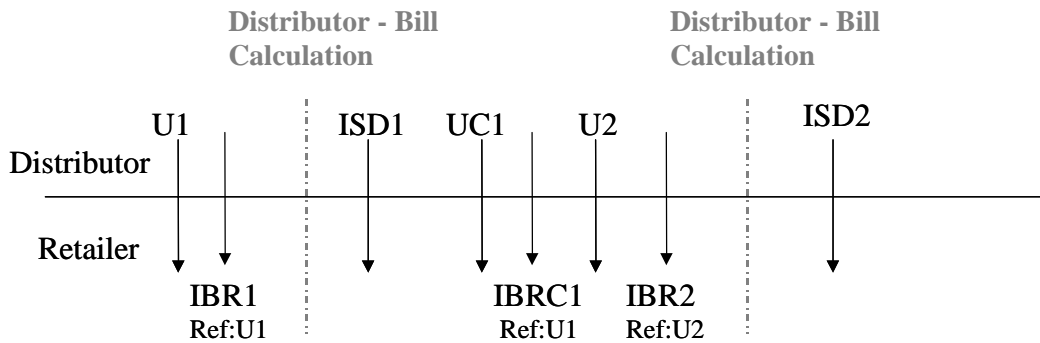
Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U2	0.04635	27.81	1.95
Commodity	U2	0.04578	13.73	0.96
Distribution	IBR2		40.00	2.80
Transmission	IBR2		80.00	5.60
Customer	IBR2		45.00	0.00

*Note: The original U1 and UC1, IBR1 and IBR-Cancel 1 have occurred prior to ISD1. There is no net effect on the Consumer’s Bill and therefore they are not captured on the ISD.

2.5 Example 5 - Usage-Cancel Occurs After ISD1

Scenario:

- o Consumer with a metered service (using 500 kWh).
- o Usage 1 is issued for 600kWh consumption.(incorrect Usage)
- o Usage 1 is subsequently cancelled after Billing and Settlement occurs.
- o Usage 2 is issued for 500 kWh (correct usage)
- o The correction for Usage 1 (Usage –Cancel 1) and IBR1 (IBR – Cancel 1) does not occur until after ISD1 has taken place.



Given that we are exemplifying a Retailer using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD1” would be:

Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U1	0.04635	27.81	1.95
Distribution	IBR1		40.00	2.80
Transmission	IBR1		80.00	5.60
Customer	IBR1		30.00	0.00

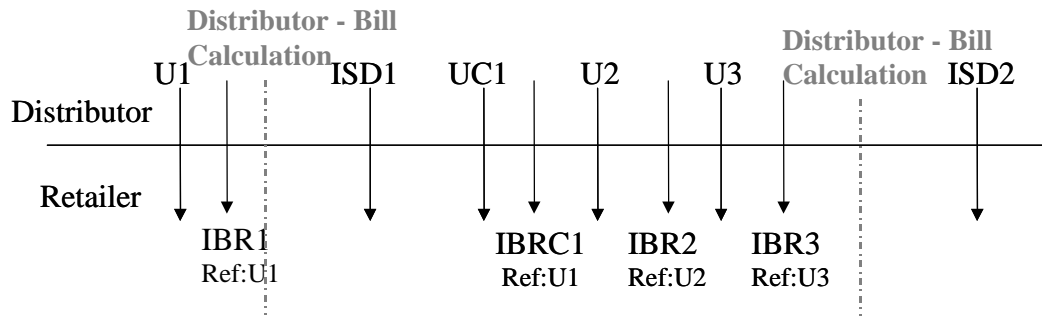
The Account Charges on the Invoice Settlement Detail EBT “ISD2” would be:

Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	UC1	0.04635	-27.81	-1.95
Commodity	U2	0.04635	23.18	1.62
Customer	IBRC1		-30.00	-0.00
Distribution	IBRC1		-40.00	-2.80
Transmission	IBRC1		-80.00	-5.60
Customer	IBR2		25.00	0.00
Distribution	IBR2		40.00	2.80
Transmission	IBR2		80.00	5.60

2.6 Example 6- Usage-Cancel Occurs After ISD1

Scenario:

- o Consumer with a metered service (using 500 kWh).
- o Usage 1 is issued for 600kWh consumption (incorrect Usage)
- o Usage 1 is subsequently cancelled after Billing and Settlement occurs.
- o Usage 2 is issued for 500 kWh (correct usage)
- o The Usage 1 correction (Usage –Cancel 1 and Usage 2) does not occur until after ISD1 has taken place.
- o Usage 3 (450 kWh) is issued for the current billing cycle.



Given that we are exemplifying a Retailer using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD1” would be:

Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U1	0.04635	27.81	1.95
Customer	IBR1		30.00	0.00
Distribution	IBR1		40.00	2.80
Transmission	IBR1		80.00	5.60

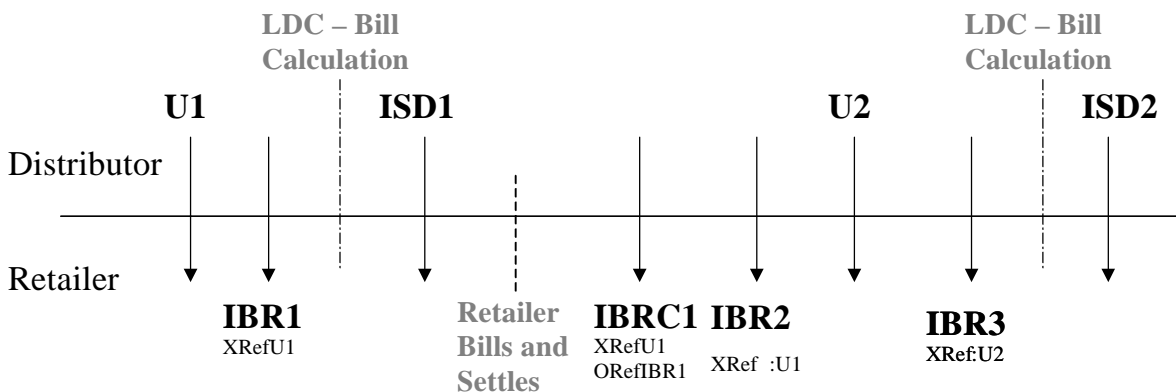
The Account Charges on the Invoice Settlement Detail EBT “ISD2” would be:

Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	UC1	0.04635	-27.81	-1.95
Commodity	U2	0.04635	23.18	1.62
Commodity	U3	0.04375	19.69	1.38
Customer	IBRC1		-30.00	-0.00
Distribution	IBRC1		-40.00	-2.80
Transmission	IBRC1		-80.00	-5.60
Customer	IBR2		25.00	0.00
Distribution	IBR2		20.00	1.40
Transmission	IBR2		40.00	2.80
Customer	IBR3		22.50	0.00
Distribution	IBR3		40.00	2.80
Transmission	IBR3		80.00	5.60

2.7 Example 7 - The IBR is cancelled by the Distributor after “Distributor - Bill Calculation” has been completed. Additionally, the Retailer has already billed its Consumer and has settled with Distributor (i.e. IST was paid by Retailer)

Scenario:

- o Consumer with a metered service (using 500 kWh).
- o Usage 1 is issued for 500 kWh
- o IBR 1 issued from the Distributor to the Retailer with an incorrect bill amount (\$20.00)
- o The ‘Distributor - Bill Calculation’ has occurred and the Retailer has sent the composite Bill to its Consumer
- o The Retailer has settled with the Distributor
- o IBR1 is cancelled (IBRC1) post Retailer Consumer billing and post settlement with Distributor.
- o IBR2 issued with the correct bill amount (\$25.00) post Retailer Consumer billing and post settlement with Distributor.
- o The IBR-Cancel (IBRC1) and IBR2 are accepted by Retailer
- o Usage 2 is issued for the next service period (500kWh).



For a Distributor using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD1” would be:

Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U1	0.04635	23.18	1.62
Distribution	IBR1		10.00	0.70
Transmission	IBR1		6.00	0.42
Customer	IBR1		4.00	0.28

For a Distributor using Tax Option 1, the Account Charges on the Invoice Settlement Detail EBT “ISD2” would be:

Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U2	0.04635	23.18	1.62
Distribution	IBR3		10.00	0.70
Transmission	IBR3		20.00	1.40
Customer	IBR3		30.00	2.10
Distribution	IBRC1		-10.00	-0.70
Transmission	IBRC1		-6.00	-0.42
Customer	IBRC1		-4.00	-0.28
Distribution	IBR2		10.00	0.70
Transmission	IBR2		6.00	0.42
Customer	IBR2		9.00	0.63

***Note:**

- o Retailer has settled IBR1 prior to it receiving and accepting IBRC1 and IBR2.
- o On ISD2, Charge Category ‘Customer’ referencing IBRC1 and IBR2 show the corrections (i.e. cancellation of IBR1 and replacement by IBR2) as described in section 2.3.4 and specifically exemplified in section 2.4.9

3.1 Example – Distributor Consolidated Billing for IST

Scenario: An IST, which totals two corresponding ISD transactions.

ISD1

Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U1	0.04635	23.18	1.62
Commodity	U1	0.04578	4.58	0.32
RetailerBillAmount	IBR1		-30.00	0.00

ISD 2

Charge Category	Source Transaction Reference Number	WAHSP	Amount	Taxes (GST)
Commodity	U1	0.04635	23.18	1.62
RetailerBillAmount	IBR2		-25.00	0.00

In addition to the Total of all charges, the Account Charges on the Invoice Settlement Detail EBT “IST” would be:

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Charge Category	Amount	Taxes
Commodity	50.94	3.56
RetailerBillAmount	-55.00	0.00

3.2 Example- Retailer Consolidated Billing for IST

The Invoice Settlement Total transaction will cross add to the Invoice Settlement Detail transaction(s) at the Account Charge Level and at the total level.

An example of an IST transaction

INVOICE SETTLEMENT TOTAL

Charge Category	Amount	Taxes
Commodity	100.00	7.00
Distribution	40.00	2.80
Transmission	80.00	5.60
Customer	120.00	8.40

3.3 Example- Retailer Consolidated Billing for IST Showing ISDs and IBRs

Retailer Consolidated Billing Option							
Example of Invoice Settlement Total Equating IST, ISDs and IBRs							
<i>Note 1: The purpose of this example is to show the need from the Retailers' perspective to have symmetry in the individual Charge Categories for each type of EBT so as to allow for facilitating and verification of all charges.</i>							
<i>Note 2: Invariably there are multiple Usage EBTs that make up the 'commodity charge' dollar amount. The idea here is that the Commodity Charge (\$) can be verified by multiplying HOEP by the Hourly Usage of each Usage EBT (noting that to facilitate this, all associated EBTs of the various types have all been associated by the Source Transaction Reference Number, as referred in the document)</i>							
Charge Categories	Charge Description	IST	ISD1	ISD2	IBR1	IBR2	
Total		3,630.0	2,423.6	1,206.4	283.6	136.4	
Account Charges							
Wholesale Market Services		75.0	50.0	25.0	50.0	25.0	
Transmission	Network	150.0	100.0	50.0	100.0	50.0	
Transmission	Connection	110.0	75.0	35.0	75.0	35.0	
Distribution	Monthly Customer Charge	40.0	30.0	10.0	30.0	10.0	
Distribution	Based on kW	17.5	10.0	7.5	10.0	7.5	
Customer							
Commodity							
		3,000.0	2,000.0	1,000.0			
Miscellaneous							
Account Taxes*							
Wholesale Market Services		5.3	3.5	1.8	3.5	1.8	
Transmission		10.5	7.0	3.5	7.0	3.5	
Transmission		7.7	5.3	2.5	5.3	2.5	
Distribution		2.8	2.1	0.7	2.1	0.7	
Distribution		1.2	0.7	0.5	0.7	0.5	
Customer							
Debt retirement charges							
Commodity		210.0	140.0	70.0			
Miscellaneous							
*Taxes applied to NCEC if tax option #3 (as indicated on the Service Agreement) was selected. For NCEC options 1 and 2, taxes applied to Commodity only							