

Maine

Electronic Business Transactions (EBT) Standards

for Electronic Data Interchange (EDI)

in the Restructured Electric Industry

Prepared by: The Maine EBT Working Group

Version 3.0

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Maine EBT Change Log

Revision Date	Revised Section and Reason:
February 26, 1999 Version 1.0	The initial EBT documents (Version 1.0) drafted by the Maine EBT Working Group were submitted to the MPUC and other parties for comment.
April 6, 1999 Version 1.1	The EDI Subteam of the Maine EBT Working Group updated Appendix C (Version 1.1) to reflect technical changes to support Maine specific business rules and UIG Version 4010 of the transaction sets.
May 14, 1999 Version 2.0	<p>The Maine EBT Working Group updated various sections of the document to correspond with changes in Maine rules (chapter 322) and updated EDI transactions.</p> <p>The EBT document was edited based on comments from the Office of the Public Advocate, Energy Express and the Working Group. The Appendices, which support the technical implementation requirements were updated by the EDI Subteam to be technically accurate and content changes were minimal.</p> <p>Version 2.0 is submitted for MPUC approval by June 30, 1999.</p>
June 17, 1999	Following review and comment by the Maine Public Utilities Commission, the document was updated to reflect those comments, specifically work group continuation and training sections.
November 2, 1999 Version 2.2	The Maine Public Utilities Commission adopted the EBT Standards by rule in Chapter 323. The Standards were revised to reflect comments and to make minor clarifications and updates.

Maine EBT Standards Document

September 12, 2001
December 6, 2001

Added the 814-11 transaction throughout the document.

Removed "Current Versions of the EBT Document and Date Issued" entries in Change Log.

Page 8 – Described process how changes are made to Technical Appendices.

Modified areas in the Work Group Process Continuation section to address changes in process and removed references to March 1,2000.

Made corresponding changes to the Technical Specifications documents.

Version 2.5

CES Rate Codes and CES Rate Prices - added definitions to Glossary and added clarifying language in the 814 Account Administration section.

Version 2.7

Added EDI 814-12 and 814-13 transactions to the document

Version 3.0

Moved EDI specific technical information from document to the technical specification appendices

I. Introduction:

The Maine Electronic Business Transaction (ME-EBT) Working Group is a partnership among Transmission & Distribution (T&D) Utility Companies, Competitive Electricity Providers and other interested parties, established for the purpose of developing detailed business processes and defining electronic transactions necessary to support retail choice as of March 1, 2000 in accordance with the Maine Public Utilities Commission (MPUC) rules and regulations.

Maine legislation and rules use the term Competitive Electricity Provider in a confusing manner, at times meaning all providers including aggregators and brokers, and at other times excluding aggregators and brokers, including only those providers selling electricity directly to retail customers. To avoid this confusion, the ME-EBT Working Group will use the term Competitive Electricity Supplier (CES) to mean any provider that sells electricity directly to retail customers.

These standard transactions have been designed to meet the needs of Maine, considering regional standards and published Utility Industry Group (UIG) 4010 standards currently adopted. This will allow Maine to remain flexible enough to accommodate the gradual adoption of regional and national standards.

These electronic standards have been developed by consensus, maintaining the objective of practical and operational results. Recognizing that the processes outlined in this proposal are new to many stakeholders, the ME-EBT Working Group will work with the Maine Public Utilities Commission and all parties to resolve issues which are certain to arise during the implementation stage of these new protocols. A plan for the continuation of the ME-EBT Working Group is included in Section X.

CES Implementation Considerations:

The following overview of the work required to implement EBT is provided as a guide for new market entrants. The Working Group recognizes that each company's implementation team will develop its actual implementation plan. Implementing the EBT standards requires a significant effort. EDI implementation and testing may involve weeks or months to complete and includes the following tasks:

1. Acquire a copy of the Maine EBT Implementation Guidelines (see Appendix C) and attend technical training. The EDI translation software vendor may also need the Implementation Guidelines to map the Maine transactions to the translation software.
2. Select and install any required computer equipment and EDI translation software. Assure that the translation software supports the required versions of the EDI transactions.
3. Configure selected translation software to interpret the transactions sent and received by individual companies' Customer and Billing systems. It must include the

programming needed to acquire and match the appropriate time and date stamp to the transactions.

4. Negotiate and execute a service agreement with a T&D Utility prior to electronically enrolling customers. The service agreement specifies utility specific systems, operations and billing practices.
5. Finally, carry out and complete the pre-production testing of the translation software, application interfaces and data exchange according to the Maine EBT Implementation Guidelines.

Glossary of Terms used in this Document:

Account: The delivery point for a customer, usually premise specific, and can include multiple meters and/or services.

Aggregator: An entity that gathers individual customers together for the purpose of purchasing electricity, provided such entity is not engaged in the purchase or resale of electricity directly with a CEP, and provided further that such customers contract for electricity directly with a CES.

Applicant of CES: Any person working with a CEP to negotiate electricity supply and not yet receiving supply from a CES.

Applicant of T&D: (per MPUC Chapter 810 and 860) Any person who applies for utility service and who is not a customer of the utility.

Broker: An entity that acts as an agent or intermediary in the sale and purchase of electricity, but does not take title to electricity, provided such entity is not engaged in the purchase or resale of electricity directly with a CEP, and provided further that such customers contract for electricity directly with a CES.

Customer: (per MPUC Chapter 810 and 860) Any person who has applied for, been accepted and is either receiving utility service or has agreed to be billed for utility service. This term also includes a person who was a customer of the same utility within the past thirty (30) days and who requests service at the same or a different location.

Customer of Record: The person owning or occupying the premise.

Competitive Electricity Provider (CEP): (per Maine Statute) Entities working with customers to offer competitive electricity service, means a marketer, broker, aggregator or any other entity selling electricity to the public at retail.

Competitive Electricity Supplier (CES): Competitive Electricity Providers registered in Maine, that maintain a Load Asset identification number for settlement with ISO New England. In general, these are providers who are not aggregators or brokers who are selling electricity directly to customers.

Enroll: The process of signing a customer up for competitive electricity supply. A customer is considered enrolled when a successful enrollment transaction is returned by

the T&D. The assignment of the customer's usage to the new CES occurs no later than the customer's next scheduled meter read date.

Estimation: A formula used to determine the kWh consumption and meter reading in the event an actual reading cannot be obtained. This formula varies by T&D utility.

Proration: A formula used to determine the average daily kWh consumption or cost over a defined period of time. Allows usage to be calculated for a date between valid meter readings.

Rate Code – CES: The code that identifies the price and structure used to bill the customer(s).

Rate Price – CES: The monetary component(s) of a specific rate code.

Separate (Dual) Billing: The T&D sends the Customer a bill for only the T&D related charges, and the Competitive Electricity Supplier sends the Customer a separate bill for the energy charges and any other services it has provided.

Service: Refers to a type of service on a T&D account, can be meters and/or rates.

Service Agreement: A set of terms and conditions between CESs and T&Ds to define operational, system and other issues specific to that T&D.

Standard Offer Service Provider (SOP): (per Maine Statute) The successful CES bidder responsible for electric generation service provided to any electricity consumer who does not obtain electric generation service from a CES or who has terminated service with a CES.

T&D Utility Consolidated Billing: The T&D sends one bill to the customer that includes both the T&D related charges and the Competitive Electricity Supplier energy charges.

Terms and Conditions (T&Cs): When Terms and Conditions (capital letters) is referenced, it means MPUC regulated and approved tariffs for that T&D.

Trading Partner: Term used for companies transmitting transactions electronically to each other, common term for EDI industry.

Transmission & Distribution Utility (T&D): (per Maine Statute) A person, its lessees, trustees, receivers or trustees appointed by a court, owning, controlling, operating or managing a transmission and distribution plant for compensation within the state. In other jurisdictions, is referred to UDC (Utility Distribution Company), LDC (Local Distribution Company) and Distribution Company.

Utility Industry Group (UIG): A national group of stakeholders, meeting to establish standards for EDI transactions.

Value Added Network (VAN): A commercial network which enables the electronic exchange of information between trading partners.

II. Summary:

The following sections of the ME-EBT Document provide a description of the transaction sets and business rules, the record layouts and data formats, the transmission methodology, and the testing and training requirements to implement the EBT standards.

Section III. Business Relationships. This section summarizes the relationships between the Customers, Competitive Electricity Suppliers and the Transmission & Distribution Utilities at the start of retail competition. It is intended to foster the development of a mutual understanding of those relationships. These relationships result from Maine Public Utility Commission Rules. A more thorough understanding will come from a reading of these Rules.

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

Section V. Standard Offer. This section defines the electronic business transactions applicable to the Standard Offer Service Providers.

Section VI. Electronic Transmission. This section describes the approach for sending and receiving the transactions between the Competitive Electricity Suppliers and the Transmission & Distribution Utilities. The approach defines the data formats and standardization of initial transport methodology. We will also offer a path for a transition into future technologies and regional and national standards as they emerge.

Section VII. Computer Operations Considerations. This section discusses the operational issues (both manual and automated) that, while primarily technical in nature, can have a significant effect on the efficiency and consistency of business processes.

Section VIII. Training. This section provides an overview of the supplier training program offered jointly by Maine's T&D Utilities to Competitive Electricity Providers, covering Maine rules and requirements for using Electronic Business Transactions. This section lists the topics and order of presentation for the training.

Section IX. EDI Testing Overview. This section provides an overview of testing objectives and test plan requirements for Competitive Electricity Suppliers and Standard Offer Providers working with Maine's T&D Utilities to complete EDI testing. Test condition descriptions and instructions are provided in appendix D.

Section X. Working Group Process Continuation. This section offers an approach for continuing the working group, taking advantage of the experience gained in the new marketplace.

Technical Specifications Appendices:

These appendices are modified through the EBT Working Group using the process described in the Work Group Continuation Process at the end of this document, and are not subject to the MPUC rule making process.

Technical Specification Appendix A: Maine EBT Transaction Sets. This appendix includes the detailed transaction sets and their expected use.

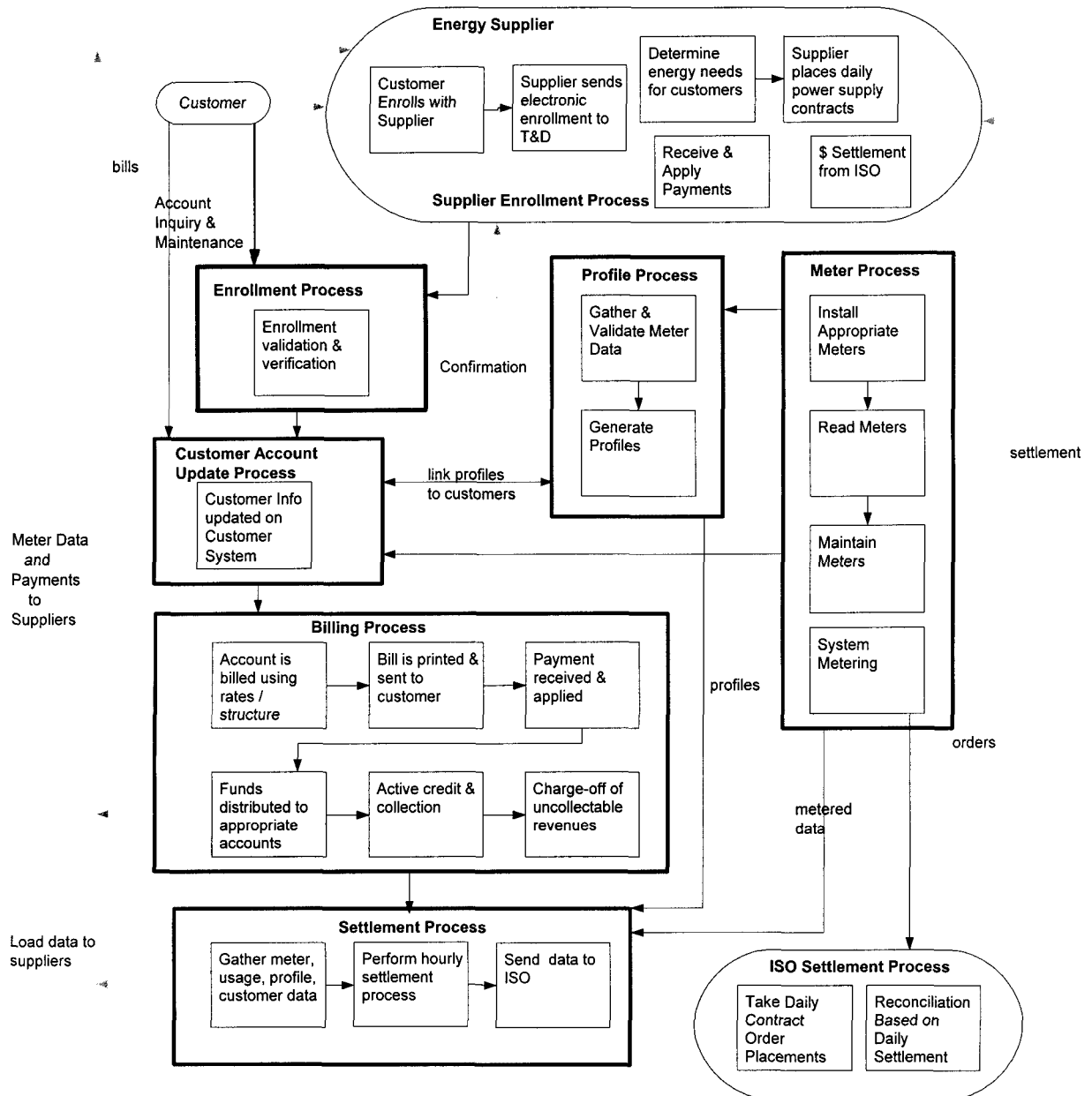
Technical Specification Appendix B: Glossary of Terms. This appendix contains a definition of all terms used in Maine's EBT transactions and applicable codes.

Technical Specification Appendix C: Implementation Guide. This appendix contains a version 4010, implementation guide including appropriate segments and codes for transactions in Maine's EDI environment.

Technical Specification Appendix D: Test Plans and Transactions. This appendix contains the detailed test plan requirements, test conditions and test data formats for EDI testing.

III. Business Relationships:

The business relationships described in this document are intended to serve as a general guide for establishing standards for exchanging information. The flowchart below depicts a high level flow of business process in Maine's deregulated marketplace for electricity supply.



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

Customer:

1. Provides appropriate authorization to a CES for release of historical consumption information from the T&D to that CES.
2. Selects one CES for enrollment per T&D account.
3. Provides the applicable T&D account identification to the CES.
4. Provides the appropriate authorization for the CES to enroll the Customer.
5. Selects a billing option per T&D account from CES, if offered or applicable.
6. Notifies CES to drop from CES to standard offer service; alternatively may contact T&D to drop to standard offer service but may incur charge with this option.
7. Notifies T&D of a move, initiation or disconnect of T&D service.

Competitive Electricity Supplier (CES):

1. Obtains license from the Maine Public Utilities Commission.
2. Enters into a service agreement with each T&D.
3. Obtains the appropriate authorization from the Customer for historical consumption information to be released by the T&D to the CES.
4. Obtains the appropriate authorization from the Customer for enrollment.
5. Obtains the applicable information from the Customer, required to enroll the Customer on the T&D's records as receiving generation service from the CES.
6. Submits request for Enrollment after the 8 day Customer rescission period has passed. (for customers under 100kW per MPUC Chapter 305) Note, one enrollment per T&D account and one billing option per T&D account.
7. Sends the applicable information via EDI transaction to the T&D for Customer enrollment, changes, or termination of generation service.
8. Provides the T&D with billing rates and pricing information for the T&D Consolidated billing option or renders its own bills to customers for generation service.
9. Maintains its own set of records to reconcile information from the T&D related to Customer information and accounts receivable.
10. Completes required training and electronic systems testing of the electronic business transactions prior to customer enrollment.

11. Identifies both a business and a technical contact to facilitate inter-business communications (may be the same person).
12. Contacts each T&D for company specific information (e.g. rate structures).
13. Processes EBT transactions according to EBT standards, including use of a functional acknowledgment on all transactions.
14. Responsible for own VAN charges for sending and receiving transactions and responsible for the full cost of historical usage transaction per MPUC Chapter 322.
15. Responsible for collecting own arrears from the customer, on T&D Consolidated billing, after transfer of final billed amount per EBT standards.

Transmission & Distribution Utility (T&D):

1. Provides Customers with a list of licensed CEPs as directed by the MPUC.
2. Provides Supplier training and certificate of completion.
3. Administer EBT testing to demonstrate EDI capability of CEP.
4. Provides the Customer's appropriate historical usage information and other information to the authorized CEP upon request.
5. Schedules normal cycle meter-read dates and reads meters.
6. Schedules and completes off-cycle reads under terms of service agreement with CES.
7. Renders bills to the Customer as required by Customer/CES relationship.
8. Maintains records of required data related to the current and active Customer/CES services.
9. Provides the CES with Billing and Usage information required by the agreed upon billing option.
10. Provides the CES with payment information and the funds collected when using the T&D Consolidated billing option.
11. Performs daily and monthly aggregate load estimate for each CES and reports estimates to ISO New England and optionally to the CES (or equivalent in Northern Maine).
12. Identifies both a business and a technical contact to facilitate inter-business communications.
13. Participates in an Internet World Wide Web site, containing various standard documents and other data, available for access by CESs and Customers.
14. Responsible for own VAN charges for sending and receiving EDI transactions, except for historical usage the CES is responsible, per MPUC chapter 322.
15. Only the T&D can terminate (i.e. physically disconnect) electric service to the Customer.

16. Processes EBT transactions and updates customer account information according to EBT standards, including use of functional acknowledgments on all transactions.

IV. Competitive Electricity Supplier Electronic Business Transactions:

The following principles will guide the development of the EBT Standards:

- Minimize the number of transactions.
- Use electronic solutions rather than paper-based ones.
- Minimize exception and manual processing.
- Control costs, increase efficiency, speed and accuracy.

Electronic Business Transaction Sets: The tables and narrative below contain the business process flows and associated electronic transactions that implement the business rules. For these transactions to be accepted by the T&D Utility, the CES must have complied with the state mandated licensing requirements, participated in training, successfully completed tests of electronic transactions and equipment, obtained the authorization of the Customer for enrollment, and executed a service agreement with the appropriate T&D.

Business Rules for Transaction Sets: Below are the business rules that correspond to each electronic transaction.

Account Administration

Enrolling a Customer: The general rule is one request for enrollment for one T&D account and one billing option per T&D account. The enrollment will be made to coincide with the Customer's normal cycle meter-read date. A customer move into the standard offer is not considered an enrollment.

The CES notifies the T&D to enroll a Customer. A CES must transmit the enrollment transaction, no less than two business days prior to the scheduled cycle meter-read date or the enrollment will be processed effective in the next enrollment period. The T&D confirms the successful enrollment with a positive response transaction.

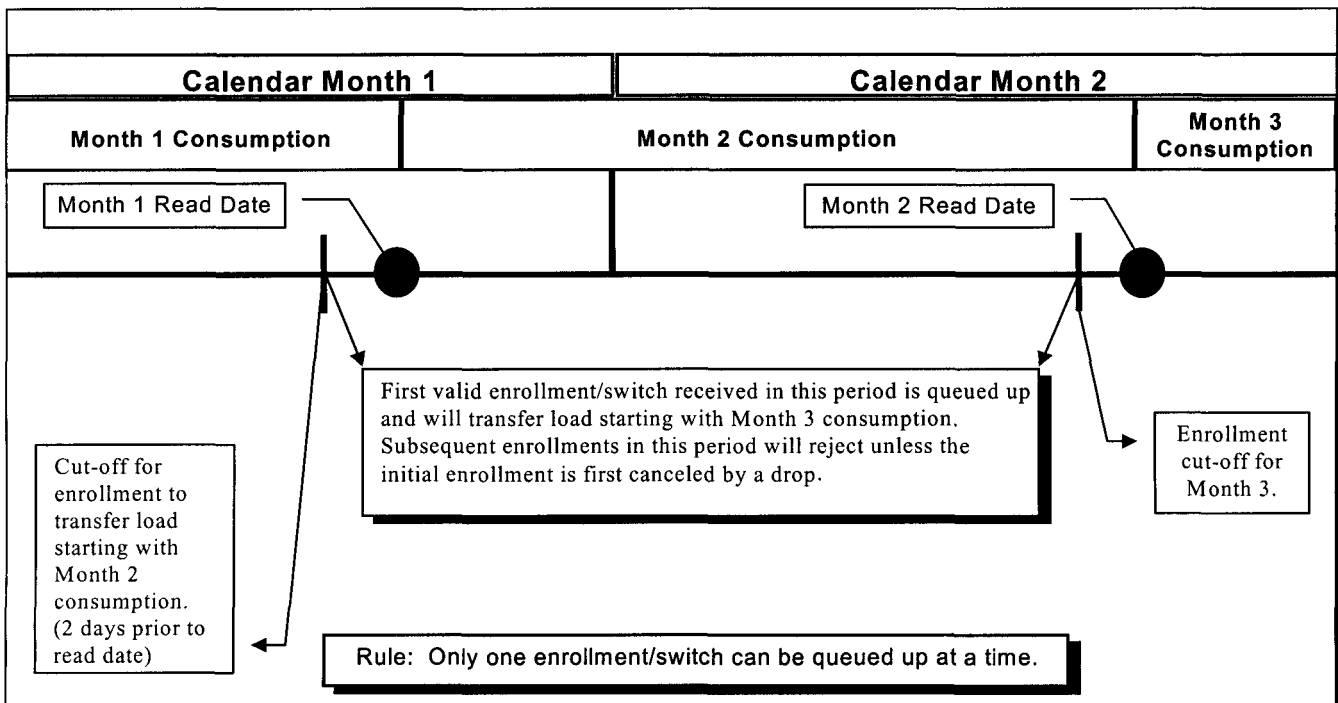
Historical Data: The T&D will provide twelve months of a Customer's historical usage data to a CES upon enrollment if requested. The CES is responsible for obtaining and maintaining the appropriate customer authorization in accordance with MPUC rules. If there is less than twelve month's historical usage data available for that customer, the T&D will provide the historical usage data that is available.

Multiple Enrollments: In the vast majority of cases, it is anticipated that a Customer will select a CES, the CES will allow any Customer right of rescission period to lapse, and will enroll the Customer with the T&D, as outlined above. It is foreseeable, however, that there may be cases where the Customer selects more than one CES and that those CESs will attempt to enroll the same Customer during the same enrollment period. The T&D has no clear way of determining Customer selection and which CES enrollment transaction to process. The first valid and accepted enrollment transaction

during the enrollment period will preclude acceptance of any other enrollment during that period.

This rule would be implemented as follows: The enrollment period commences two business days prior to the Customer’s scheduled cycle meter-read date and ends two business days prior to the Customer’s next scheduled cycle meter-read date. The T&D processes the first valid and accepted enrollment transaction received from a CES during the enrollment period. Once an enrollment is in force for that enrollment period, any other enrollment transaction for that Customer during the same enrollment period will be rejected by the T&D (but may be resubmitted by the CES for processing in the next enrollment period).

Enrollment Period Timeline



Multiple Services: When more than one Service is assigned to a Customer account, the CES will submit one enrollment transaction for the entire T&D account. When a CES successfully enrolls an account with multiple services, a successful enrollment transaction will be sent to the CES listing each service enrolled. All services will be established based on the information submitted by the CES, i.e. all on one rate code if only one rate code was specified. If the customer’s metering does not support the rate structure specified in the rate code, the enrollment will be rejected. Because of the nature of these accounts, all portions of the enrollment must be successful, and if any portion is invalid, the enrollment of the entire account will be rejected.

Off-Cycle Changes: The general business rule is that all activities will take place on the scheduled cycle meter-read date. However, Maine's Standard Offer rule and Chapter 322 allow exception to this rule, allowing a customer to drop a CES or a Supplier to drop a customer off cycle for a fee. Therefore, the EBT Standards allow for off-cycle drops from a CES to the standard offer, initiated by the CES or the Customer, but the standards do not provide for off cycle enrollments.

Supplier Changing Customer Account Information: The CES can notify the T&D via EDI to Change Supplier Company Data (e.g. CES billing rates) for a specific Customer. The general rule is that the Supplier will provide the reason for change, the changed data and the changes would then be effective on the next cycle meter read date, or within two business days of the notification as appropriate. It is the Working Group's intention that rate code changes made between bill cycles will be effective as of the previous meter reading, so the new rate code is effective for the entire billing period for that customer

Rate Price Change (Non EDI): When a CES requests a new rate price for an existing rate code, that new price will be effective on the date requested by the CES provided that the date requested is no sooner than five business days after providing written notification to the T&D Utility.

New Rate Code (Non EDI): New CES rate codes require testing with the T&D. Testing shall occur within 20 business days and then the new rate code can be used. If the new CES rate code does not match an existing T&D rate structure and requires programming to implement, a cost estimate will be provided within 15 business days. Any implementation of a new rate code based on a cost estimate will be completed in accordance with the service agreement terms.

T&D Changing Customer Account Information: The T&D may also send the CES a Change transaction for a specific T&D account to update customer information. (e.g. meter change or budget billing) The T&D will provide the reason for change and may send all or just the changed data.

Notification of a Successful Enrollment: The T&D notifies the CES that the requested Enrollment was successful by sending a notification back to the CES. This notification will include the projected effective date and meter or rate information if needed.

Customer Switching CES: When a Customer changes CES, it is only necessary for the new CES to send an Enrollment transaction; if successful, a Successful Enrollment transaction is returned to the new CES and a Customer Drops Supplier transaction is sent to the old CES. The Customer does not need to be concerned about dropping the old CES.

Customer Movement: A Customer normally will contact a T&D customer service representative when they are moving. If the Customer is moving within the service territory, then the customer service representative will initiate action that will result in

continuation of service with the same CES at the new address, (referred to as a seamless move), unless the Customer indicates that they wish to return to Standard Offer.

The seamless move allows the Customer to stay enrolled with the same CES at the new address and is possible when the following conditions are met:

- the new account will be on the same Supplier rate,
- the customer contacts the T&D at least two business days prior to the move,
- the customer knows where they are going (T&D account),
- there is no break in service (concurrent service will be allowed)
- the meter at the new location must support the supplier rate code.

Any break in service will final the CES relationship and require a new enrollment.

Error Handling Transaction: If an Enrollment, Change or CES Drops Customer transaction is rejected by the T&D, an error transaction will be returned to the CES identifying the rejected record and the reason(s) for the rejection. Up to 10 reject codes can be transmitted in one transaction, however, an invalid T&D account number will reject with no additional processing or error codes. The error can also be sent from CES to T&D.

Customer Dropping a CES: If a Customer desires to drop a CES other than through enrolling with a new CES, the Customer may inform the T&D or the CES. If the Customer informs the CES directly, the CES will send an EDI transaction to the T&D notifying them of change. The CES will be sent final Customer Usage or Customer Billing and Usage Information transaction at the time of billing to allow the completion of the customer accounting process.

If the Customer informs the T&D directly to drop a CES, generation service will be terminated on the date of the Customer's next scheduled meter read. If the customer desires to drop the CES off cycle, the T&D will send an EDI transaction notifying the CES of the change, indicating the predicted off cycle drop date. The T&D will automatically move the Customer to Standard Offer based on a prorated read or actual read and bill the customer the appropriate fee. The CES will be sent final Customer Usage or Customer Billing and Usage Information transaction at the time of billing to allow the completion of the customer accounting process. The Customer may have another CES enroll them effective on their next scheduled cycle meter-read date.

The T&D only sends the customer drop when the customer has elected to have the drop occur off cycle.

Customer's Final Bill: When a Customer moves and final the service or moves outside of a given service territory the CES will be notified of the Customer drop via the final Customer Usage or Customer Billing and Usage Information transaction at the time of billing to allow the completion of the customer accounting process. For the consolidated billing option, the arrears will be carried for 60 days (or 1 bill following the final bill)

prior to sending the write off to the supplier. If later, the customer establishes an account and the T&D transfers the receivables to the new account, any supplier receivables will also be transferred and carried for the remainder of the collection period.

CES Dropping a Customer: The CES, after complying with any applicable notification period, notifies the T&D to discontinue generation service for a Customer. The general rule is that the termination will be made to coincide with the Customer's normal cycle meter-read date. If the CES desires to drop the customer off cycle, the T&D will send a Confirm Drop transaction to the CES, indicating the predicted off cycle drop date. The T&D will automatically move the Customer to Standard Offer based on a prorated read or actual read and bill the CES the appropriate fee. The CES will be sent final Customer Usage or Customer Billing and Usage Information transaction at the time of billing to allow the completion of the customer accounting process. After that date, the Customer will automatically receive Standard Offer until they enroll with a new Supplier.

Requesting Customer Usage History: The T&D will provide twelve months of a Customer's historical usage data to a CES if requested, assuming that the CES has received the appropriate customer authorization, in accordance with MPUC rules. If there is less than twelve month's historical usage data available for that customer, the T&D will provide the historical usage data that is available.

Monthly Usage/Billing

Customer Usage Information, Separate (Dual) Billing Option: The general rule is that there is a "one to one" transaction, meaning one EDI billing transaction for each account per billing period. After the meter reading data is obtained and processed, the T&D will provide the Customer's CES with consumption information to facilitate CES billing, within 5 business days of the meter read.

Customer Usage and Billing Information, T&D Consolidated Billing Option: After the meter reading data is obtained and processed, the T&D will provide the Customer's CES with consumption and billing information, within 5 business days of the meter read.

When a Customer moves, is shut off for non-payment or is no longer a Customer of record, the T&D renders a Final Bill to the Customer, at that location. At that time the T&D sends the CES the final usage, or billing and usage, information as appropriate. This process is also followed if the T&D discontinues distribution service to a Customer. Validated billing and usage information will be transmitted to CESs the day following the T&Ds' processing cycle, per terms and times in the service agreement.

Arrears Processing: Within the billing information, the CES arrears will be calculated using the same rules that the T&D uses. Whenever a Customer switches CES, there is a chance that there will be outstanding arrears for the old CES. If the T&D Consolidated billing option had been chosen for the old CES, the T&D will carry the old CES's arrears for one bill after the final bill. Then, an EDI transaction using the bad debt write off code

will be sent to settle the account with the CES. It is the CES's responsibility to pursue credit and collection activity on the outstanding arrears after the bad debt write off has occurred. As the T&D collects money from the Customer, and that money is determined to be applied to the CES portion of the bill, it will be applied against the oldest CES's outstanding arrears first.

Bill Cancellation: When it is determined that a consumption-based adjustment to a customer bill is necessary, the T&D will notify the CESs of the cancellation of the original bill by sending an EDI transaction with a cancellation activity code. Numeric fields will be sent as originally billed, i.e. not negated, since the activity code determines the purpose of the transaction. The CES can then apply the amounts to its own system as needed.

For Separate (Dual) Billing, the Usage transaction will be sent so that the CES will know the amount of consumption being canceled. For T&D Consolidated Billing, the T&D will cancel the bill in question, and provide the CESs with a Billing transaction indicating the consumption and dollars that have been canceled.

Rebilling of Canceled Amounts: If a rebill of the canceled billing is appropriate, the T&D will notify the CESs of the corrected consumption amounts being billed by sending an EDI transaction. For T&D Consolidated billing, the CES portion will be recalculated based on the corrected consumption, and the corrected dollar amounts sent as well.

For T&D Consolidated billing, if the cancellation and/or rebill covers a period of historical consumption in which the customer's accounts/receivable information for the CES is no longer available (i.e. for one bill after the final bill with the CES, and an EDI transaction containing a Write-off Adjustment has been sent to the CES), the T&D will send the canceled and/or rebilled amounts to the CES.

Payments & Payment Corrections

(T&D Consolidated Billing Option Only)

Customer Payment/Payment Correction: The general rule is that the payment/adjustment transaction is a "one to many" transaction, meaning it will contain remittance advice and information on one or more accounts per CES. Each business day, information about recorded Customers' payments and corrections will be sent to the Customers' CES. Recorded payments reported in the transaction will set up a trigger to release the funds to those CESs based on terms contained in the service agreement, anticipated to be five business days.

Error Responses

Response, Errors on Usage, Billing and Payment/Payment Correction transactions: If the T&D has sent a Usage/Billing or Payment/Payment Correction transaction that has data error problems and cannot be processed, then the CES will send a Response Error Transaction to the T&D Utility, referencing the original transaction and the reason the transaction cannot be processed.

E-mail Settlement Transaction

Settlement: The Aggregate Load Estimate record will be sent electronically to those CESs that request it. As the daily load estimate information is made available to ISO New England, it will be sent to those CESs in the same format. The daily load settlement data can be provided in a different format based on the service agreement.

Transaction Conclusion

These business rules are intended to resolve most questions about the business relationships in Maine's deregulated marketplace. However, there are many unusual and irregular situations that will occur in the normal course of business (e.g. administrative account changes). While these situations are extraordinary, they are nonetheless important. For example, a T&D's administrative change may have the effect of final billing a Customer with its CES. In many of these cases, the rules do not apply directly. The Working Group makes the explicit assumption that the necessary communication between the Customer and the T&D will be extended to the CES, making the three parties aware of the appropriate actions that must be taken. Further, given that the proper communication between the parties has taken place, the Working Group feels confident that the transaction sets will be sufficient to accommodate these anomalies. As was recognized in the Introduction, work must continue on these standards as the marketplace evolves and as the parties gain experience.

Transaction details including syntax, transaction flows and other important information is provided in Appendix C of this document. Changes in the Appendices occur from time to time per the EBT working group process as described in Section X.

V. Standard Offer Electronic Business Transactions:

The Standard Offer in Maine is a wholesale model in some respects. Standard Offer Providers, (SOP) are not provided customer specific information, therefore, no enrollment detail or individual payment information is sent. In general, T&Ds will provide the appropriate percent, based on bid percentage, of aggregated customer data by rate class to Standard Offer Providers. The total number of accounts by standard offer rate class each day will be provided from the settlement process according to the settlement schedule. An aggregated version of the Usage/Billing transaction will be provided daily to each Standard Offer Provider according to the T&D's billing schedule. The transaction will detail the SOP percent for each of the billed components by time period, the associated billed dollar amounts and the amount deducted for bad debt retainage equaling the amount due to the SOP.

Further information can be obtained from the MPUC report on "information Needs of the Standard Offer Providers".

VI. Electronic Transmission Standard Approach:

The ME-EBT Working Group has reviewed the standards, technologies and services available for defining transaction sets and transport mechanisms. We have also considered developments taking place in the rapidly emerging, restructured electricity markets in neighboring New England states and other regions of the country.

The position of the Working Group is:

- Implement EDI in Maine using VANs.
- Participate in national standard setting for our industry
- Continue to monitor Internet progress.
- Find opportunities to model and experiment with Internet transport solutions where appropriate, in non deregulation applications.
- Move to using the Internet when open solutions and national standards are ready.
- Let Consumer Owned Utilities investigate low cost/shared solutions.

There is general agreement among the participants that transaction formats should be standardized so that all parties can develop the business processes and automated systems needed to facilitate the required set of electronic business transactions. It is less certain that a single means of transferring the data should be mandated for use by all parties. Successful implementation of both Value Added Network (VAN) and limited Internet file transfer systems are presently in use in New Hampshire, Massachusetts and Rhode Island. In addition, other methods, such as dedicated, leased phone line connections, dial-up phone connections, and other computer-to-computer file transfer mechanisms are available, and could be practical and economical transfer mechanisms for certain scenarios.

The ME-EBT Working Group reviewed the technologies and services available for packaging standardized transaction formats for transmission over public and private networks. A unanimous decision was made to use the electronic commerce industry's Electronic Data Interchange (EDI) implementation and the UIG standards. Future changes to UIG standards will be reviewed on a case-by-case basis as provided for in Section X.

The EDI format will use existing ANSI ASC X.12 transactions which are tailored for use in the exchange of information between T&Ds and CESSs. The group has "mapped" the fields we have defined in Appendix A and B of this report to the existing segments of the EDI transaction sets as defined in the implementation guide, appendix C.

The ME-EBT Working Group adopted a Value Added Network (VAN) as the default transport medium for the market. VANs are a reliable and proven technology, and they include the services in the key areas identified above. However, other methods may be permitted if there is a service agreement between market participants to implement and support such methods, and provided they address requirements in the following key areas:

- Security/encryption of transactions and customer information
- Proof of transmission and receipt (non-repudiation)
- Reliability
- Data and file integrity
- Network performance and availability
- Recoverability and archiving of data

VII. Computer Operations Considerations:

Other sections of this document address essential standards for business transactions, data formats and electronic transmission of data. This section deals with the operational issues (both manual and automated) that, while primarily technical in nature, can have a significant effect on the efficiency and consistency of business processes. The ME-EBT Working Group identified the following principles for computer operations:

- Processing of data must be reliable, predictable, accurate and efficient.
- Transaction processing must be equitable and verifiable.
- Trading partners' daily operational schedules should be accommodated.
- The entire process must be designed to detect and report errors without intervention.
- There must be a clear assignment of responsibility.
- The complete process occurs over a 24 hour period and includes:
 - Daily input and validation of CES input transactions (Enrollments, etc.)
 - T & D billing cycle ("T&D Company CIS")
 - ISO New England load estimating and reporting
 - Daily output to the CES (Successful Enrollments, Usage and Billing, Customer Payments, Errors, Load Settlement if requested, etc.).

Computer operations issues have been categorized into the following topics: scheduling, file handling, error handling and recovery.

Schedule: Each trading partner will have daily schedules that should be accommodated to the extent possible. Operating schedules cannot be standardized because of differences in daily transaction volumes, processing techniques, technology, etc. At the same time, there should be a baseline schedule that all trading partners can rely on that does not place an undue burden on any trading partner. Each T&D will publish their daily operation schedule as a guideline to CESs. The schedule should include cycle reading dates, processing "work days" and "no work" days (i.e., holidays, weekends).

The ME-EBT Working Group reviewed the daily computer operation schedules of the T&Ds in order to develop a baseline schedule. The Working Group proposed a target schedule pertaining to a normal business day. As testing provides more information on the unknowns of volume and processes, the schedule will be revisited. We will make the effort to be consistent on key cut-off times across utilities. The proposed schedule target is as follows:

- CES transactions must be ready for T&D processing each work-day, at a time specified in the service agreement.
- Transactions received on the current business day will be responded to by the end of the next business day.

- Validated billing and usage transactions will be transmitted to CESs by the next business day following the corresponding T&D processing cycle.
- T&D output transactions should be ready for CES processing each business day, at a time specified in the service agreement.
- Refer to the Enrollment Period Timeline in Section VI, for a description of the customer enrollment process.

File Handling: The operational guidelines pertaining to file handling are based on the business rules defined elsewhere in this document concerning transaction standards and data transmission. It should be considered that changes to those business rules could impact file handling.

- The T&D will attempt to process all files sent by the CES unless specific action is taken by the CES to avert processing (i.e., delete files, replace files). Refer to the Error Handling section for additional information.
- The recipient of a file (CES or T&D) is responsible for reviewing and editing file contents to prevent adverse impact on the recipient's operations or systems (data errors, duplicate files, illogical conditions, etc.). The recipient of a file has the right to reject the file in whole or in part due to content or protocol errors. In the event that a file is rejected, the detail transactions will not be processed.
- The creator of a file is responsible for the accuracy and authenticity of the contents.
- All data exchanges will be done in a pre-established manner to ensure data security and integrity (refer to "Electronic Transmission" section).
- Each file will have one recipient, and should contain transactions intended only for that recipient. A file may contain multiple transactions of the same or different type for the same customer account.
- Files will be processed by the recipient according to the recipient's operating schedule. The T&D will sweep the input queue at least once each business day and will process all files that are available by the cut-off and up to the time of the last sweep.
- Files will be processed in chronological order. To ensure accurate and consistent posting of individual transactions, the T&D will validate them in physical sequence as presented on the input files. Errors and confirmations (e.g., Successful Enrollments) will be returned to the CES no later than the first business day following the processing of the transactions by the T&D.
- Daily transaction exchange between the CES and the T&D will generally not be limited in terms of the total number of files or transactions processed on a daily basis.

Error Handling: Each trading partner must establish two points of contact: one for technical operations problems, and another for business issues. Each trading partner should establish appropriate procedures for problem resolution such that problems are identified, documented, properly classified and resolved in a timely manner.

Because access to and manipulation of data must be controlled, the creator of a file is responsible for correcting any errors in the data. No transaction that contains error(s) will be accepted.

Recovery: A sound operation includes data recovery procedures that can be invoked in the event of unexpected situations that require transactions to be resubmitted for any reason. The primary purpose of these recovery procedures is to protect the originator of a file from damages related to loss of the data.

No matter what specific transmission method is used, the originator needs procedures so a file can be recovered and/or retransmitted or simply omitted from the job stream (unreadable data, invalid header, file control error, etc.). The CES will have to coordinate with the T&D in order to omit a file (dictated by T&D operational schedules); other conditions are addressed in the "File Handling" section.

The ME-EBT Working Group agreed that it is the responsibility of the originator of a file to maintain the ability to recover or recreate the data. In lieu of regulations that may specify data retention requirements, the specific recovery guidelines are left up to each trading partner. The minimum recovery criteria based on the normal file creation schedule is recommended to be six (6) months.

VIII. Supplier Training:

Introduction: Prior to providing power supply service to any Customer in the market area, a CES must complete training. Given the importance of understanding the operation and communication requirements of the new market infrastructure, the MPUC has concluded that each CES must complete the training program and testing prior to the first Enrollment transaction being submitted to a T&D.

Training Framework: The Maine EBT Working Group has developed a training framework to provide CESs with a solid base of knowledge for successfully doing business in Maine. Consistent with the concept of CESs having a primary business contact and a primary technical contact, the training will be structured in two sections.

Section One is Maine's Restructuring Overview focused on Maine's relevant business issues, including regulations, responsibilities and resources. The purpose of this section is to provide a solid information base for potential Competitive Electricity Providers who are likely to participate in Maine's retail electricity market.

Section Two, designed for the primary technical contact person, is Technical EBT/EDI Training focused on operational issues covering the requirements and responsibilities for testing and implementing electronic billing and EDI transactions.

Aggregators and brokers must attend training only if they will utilize EDI to conduct business.

Supplier Workshops are structured in such a manner as to maximize information exchange, maintain consistency between sections, and minimize resource impact for everyone. A workshop schedule and proposed agendas will be posted on the Maine Supplier Web Site. The frequency of the workshops, enrollment deadlines and workshop content will be determined by the level of interest and needs of the CEPs. Training will be offered quarterly at a minimum. Priority will be given to CEP registrants and others may attend as space allows. The workshops will be conducted with representation from the T&D Utilities and the MPUC.

The workshop coordination and the costs of the facility and training materials will be allocated among the T&Ds. Individual participants will be certified as trained. Each CEP will be provided with a Maine Supplier Guide of reference materials and updates will be communicated to participants.

IX. Supplier Testing:

Introduction: Prior to providing power supply service to any Customer, a CES and SOP must demonstrate its capability to electronically send (receive) data to (from) each T&D in whose service area it intends to offer competitive services. Successful testing of all transactions must be completed prior to the first enrollment transaction being submitted to the T&D.

Successful testing of the Historical Usage transaction can be completed to allow a CEP to get customer historical usage information without testing all other transactions.

The purpose of the ME-EBT Test Plan is to provide a standardized set of test conditions that CESs, SOPs and T&Ds will use to verify their customer transactions and EDI interface. The detailed test plan is contained in Appendix D.

The purpose of the testing is to verify that the CES is capable of complying with the data transfer standards specified in this document and has the necessary software and hardware required to send, receive, and translate the standard transactions required to do business in the market.

The test plan is not intended to exercise every conceivable transaction condition, but it will cover the most common scenarios and enough error conditions to demonstrate basic error handling. The test plan cannot anticipate limitations that exist within trading partners' systems, so trading partners may agree to perform additional testing or to add/modify transactions in order to cover special conditions. The test plan is not a substitute for internal testing of trading partners' systems. Each trading partner should conduct thorough testing of their internal systems to ensure that all transaction processing is accurate.

EBT Testing Procedure: This procedure provides CESs and T&Ds with a guide to initiating and successfully completing the ME-EBT Test Plan. This procedure will be followed by each T&D with which the CES wants to test and/or enroll customers. Successful completion of the test plan (Appendix D) is required before the T&D will accept enrollment transactions from the CES.

1. The CES representative (either the Business Contact or Technical Contact) must contact the person identified as the Business Contact for the T&D with which testing is to be conducted. This contact must be made at least two weeks before test files are transmitted to the T&D. The two week lead time is so the CES and the T&D can work together to establish the following:
 - Gain an understanding of the Test Plan conditions and requirements. (Appendix D)
 - Perform tests on rates and pricing structures in the T&D test system.
 - Perform tests on mailboxes and passwords or alternate method of file exchange.
 - Identify and agree on any specific test data needed for utility-specific conditions.
 - Set a schedule for transmitting test data and conducting the tests.

2. CES will transmit test files in EDI format (see ME-EBT EDI Implementation Guide, Appendix C) according to the schedule. CES notifies the T&D Business Contact when files have been transmitted. The T&D Business Contact or Technical Contact will provide prompt notification of any problems encountered with the input files.
3. The T&D will process CES input files and send result files according to the schedule. CES should process each file through its test record keeping system according to the test schedule and promptly notify the T&D Business Contact of any problems.
4. The Business Contact and Technical Contact for each party will review the results of their individual test system processing cycles. This review will ensure 1) that test results are consistent with internal requirements, 2) that the intent of the ME-EBT Test Plan is fulfilled, and 3) that any deviations from the expected results are legitimate and do not jeopardize the quality of the test.
5. The test is considered to be completed successfully when the Business and Technical Contacts for both the CES and T&D sign off on the test results. The test can be rescheduled and rerun as necessary to provide the reviewers with the confidence to sign off.

Test Completion: The test utilizes transactions from the standard transaction sets described in appendix D and verification of 100% error free transmission, receipt, and translation of the data by both CES and T&D is required. Upon *successful* completion of the test, (and any other registration requirements) the T&D will activate the CES on their production business system.

Updates to Test Standards: The details of the test procedures, data scenarios and transactions may vary over time. The version in effect when this report was issued is presented in Appendix D, ME-EBT Test Plan.

X. Work Group Process Continuation:

Introduction: The ME-EBT Working Group has produced this document to facilitate Electronic Business Transactions necessary to support Customer Choice in Maine. Additionally, standards and technologies are being proposed and adopted, in other states, both regionally and nationally, that merit observation and possible adoption.

For these reasons, and others, the ME-EBT Working Group will operate on an ongoing basis to develop these EBT Standards and keep them current. Its composition can remain open to the T&Ds, the CESs, and new entrants to the market (e.g. Customers, Aggregators). They can also help resolve some issues that may emerge in the future:

- Integrate ideas from new members into the standards.
- Coordinate timing for changes in any of the protocols.
- Continue to train the “old” Suppliers when changes to the protocol are made.
- Revisit the use of the Internet as a transmission solution.

The Working Group will meet on a regular basis, unless modifications to Maine’s Rules warrant more frequent meetings. New chairperson(s) will be chosen every year. Every T&D and licensed CES in Maine will be members of the Working Group and will be able to participate in the change process. This is important for the market to move forward, and to maintain viable regional standards and follow as possible the UIG national standards adopted by the Working Group.

Change Control Process: The ME-EBT Working Group will use this change control process to improve the efficiency and order of changes to the EBT document.

It is understood that change control is vital in order to allow the market to function successfully on a daily basis. Each CES and T&D will rely on established, documented and tested transactions, yet must have a process by which to modify, test and implement changes in an efficient, effective, timely, and well-coordinated manner. This section of the EBT document provides the process by which changes to the standard transactions may be discussed, reviewed, accepted and implemented.

The ME-EBT Working Group, in conjunction with the Maine Public Utilities Commission, will maintain, publish, and post the standards and the ongoing modifications/enhancements to these standards to a central web site, and linked to T&D web sites. Because all T&Ds and CESs will be members of the Working Group, the designated contacts of each CES and T&D will be notified of anticipated modifications or enhancements to the standards and of anticipated timing.

In order for such a process to work, the following are in place:

1. A Maine EBT working group has been formed.
2. Regular work group meetings are being held to discuss the desired changes and any issues that arise from initial implementation.

3. The EBT Standards Document and meeting minutes are used to communicate issues that arise and must be addressed at and between the regular meetings.
4. The timing of changes in the EBT process and associated testing requirements will be discussed and resolved by the Maine EBT Working Group..

The proponent proposing the modification/enhancement will be responsible for drafting the suggested changes to the specified document and any other documents that are affected. The proponent will send the proposed change to the Working Group using the list serve. Any member wishing to comment will do so and the Working Group will accommodate all requests to the greatest extent practicable. No entity will be required to carry out a change that is excessively burdensome. However, all entities must make all reasonable efforts to accommodate or implement changes supported by the Working Group. If the Working Group cannot reach consensus on a proposed change, it will submit the issue to the MPUC for a decision.

Once the Working Group has adopted changes to the EBT Standards, these changes will be submitted to the MPUC. The changes are subject to adoption by the Commission through its procedures for amending rules. Once the changes have been adopted by the Commission through the rulemaking process, they will be recorded in the change control log sheet in the front of this document and the document will be re-issued to the ME-EBT Standards book holders of record via e-mail and published on the web site. Changes to technical specifications adopted by the Working Group do not need to be approved through the Commission's rulemaking process. These adopted changes will be filed at the Commission, re-issued to the ME-EBT Standards book holders of record via e-mail and published on the web site.

Priority Classifications: All modifications and enhancements should be classified in one of the following three categories:

Emergency Priority: Changes must be implemented within 10 days or as otherwise directed by the working group.

High Priority: Changes/Enhancements implemented within 30 days, the next release, or as otherwise directed by the working group.

Low Priority: Changes/Enhancements implemented no earlier than 90 days, Future Release, or as otherwise directed by the working group.

Emergency Priority: For a change to be classified as *Emergency Priority*, the initiating party must demonstrate in writing to the working group that:

- The current standards cannot accommodate MPUC Rules.
- If the problem is left unattended, it could have a detrimental affect to a working group participant, or Maine's choice program in general.
- Service agreements between CESs and T&Ds cannot solve the problem efficiently.
- An urgent modification of the standards is required.

- All working group participants affected by the problem will accommodate said modification.

In addition, the initiating party must:

- Document in advance the scope of the modification and the affected standards.
- Document why the modification should not be classified as Next Release or a Low Priority change.
- Provide cost justification if appropriate.
- Document the proposed amendments, provide a test plan, test cases, and standards. This documentation shall be presented to the working group.

High Priority: For a change to be classified as *High Priority*, the initiating party must demonstrate in writing to the working group that:

- Service agreements between CES's and T&D's cannot solve the problem efficiently.
- The change addresses immediate regulatory and competitive market issues and mandates.
- All working group participants affected by the problem will accommodate said modification.

In addition, the initiating party must:

- Document in advance the scope of the modification and the affected standards.
- Document why the modification should not be classified as a Low Priority change.
- Provide cost justification if appropriate.
- Document the proposed amendments, provide a test plan, test cases, and standards. This documentation shall be presented to the working group.

Low Priority: For a change to be classified as future release *Low Priority*, the initiating party must demonstrate in writing to the working group that the suggested modifications or enhancements:

- Will meet changes as prescribed by the UIG or MPUC.
- Service agreements between CES's and T&D's cannot solve the problem.
- Will address regulatory and competitive market issues and mandates which affect all participants.

In addition, the initiating party must:

- Document in advance the scope of the modification and the affected standards.
- Document why the modification should not be classified as Next Release or a Low Priority change.
- Provide cost justification if appropriate.
- Document the proposed amendments, provide a test plan, test cases, and standards. This documentation shall be presented to the working group.

Notification Requirements

Emergency Priority

The party proposing the change/modification shall notify the working group chairperson(s) who will verify that the change/modification is an Emergency Priority in accordance with the Change Control Process. The working group Chairperson(s) will notify by e-mail, both CESs and T&Ds in as expeditious a manner as feasible.

High and Low Priority

The initiating party will notify the working group Chairperson(s) by phone and/or e-mail, and both CESs and T&Ds by e-mail, at least 30 days prior to the next scheduled working group meeting. The Chairperson(s) shall add the change/modification request to the meeting agenda.