
Communication Testing Procedures

The purpose of the testing is to verify that the retailer is capable of complying with the data transfer standards specified in this document and has the necessary technical environment to send, receive, and translate the standard transactions required to do business in the Alberta Electrical Utility market and specifically with EPCOR Distribution and Transmission Inc. (EDTI). There are three stages in the communication setup and verification process: establishing the DropChute communication between the retailer and test facility EDTI, exchange of electronic transactions, and establishing the DropChute communications to EDTI's production environment.

All enquiries regarding the communication test should be forwarded to the EPCOR Communication Testing Coordinator – Lisa Lamers-Zuger (llamers@epcor.ca) or Shun Fung (sfung@epcor.ca).

1. Test Facility DropChute Setup

The retailer has the responsibility of establishing a communications facility prior to requesting verification with EDTI's test facility. The steps involved in the setup are as follows:

- The most current version of the file transfer application - DropChute, manufactured by Hilgraeve Inc. has to be installed at retailer site.
- The retailer must obtain a digital certificate from Verisign. This can be accomplished by following the instructions on the Verisign Web site to obtain a Class 1 Personal ID with low security.
- The certificate must be installed on the retailer's DropChute computer in the following manner:
 - select Public-key security with MS Cryptography API on the Security page of the DropChute Pro entry that represents the other person;
 - select the cryptographic service provider using the dropdown list box on the Security page;
 - contact the EDTI and exchange each other's unique identifier (this is typically in the form of an email address) and internet protocol (I.P.) address or domain name;
 - EDTI and the retailer temporarily select Unique name user authentication – the retailer will connect to EDTI and DropChute Pro will automatically exchange the public keys;
 - after disconnecting, you both select Public-key security with MS Cryptography API.
- The retailer must provide a list of valid sender codes that will be used as part of the file name "from party" designation; e.g., for a retailer, this is their GST number.
- EDTI will set up inbound and outbound folders with which all data transmissions from and to the retailer will be held until transferred. It is the external entity's responsibility for initiating all data transfers to and from EDTI.

The installation and configuration of hardware, software, establishment of communications and basic testing are the responsibility of the retailer and must be completed prior to initiating this testing process.

2. Exchange of Electronic Transactions

The purpose of this series of tests is to validate the exchange and format of electronic transactions so that the expectations of both parties can be realized. It is expected that the retailer will use their actual system to generate the electronic transactions and to process the transactions that have been provided for the retailer's extraction from DropChute.

Throughout this test, a standard set of transactions will be used so that the verification process can occur as quickly as possible. In each instance, two test cases will be expected, one of which will be successful and the other will be rejected. This allows a retailer to encounter both types of responses. If problems are encountered during the manual verification of the transaction files transmitted by the retailer, the verification support staff will contact the retailer directly. While there are normally timing considerations associated with the transactions, it is expected that all of the required transactions defined in the test cases will be transmitted all of once – nine files containing two transactions each. Once these files have been verified, EDTI will prepare the response file for the retailer to extract from EDTI's DropChute.

2.1 Extract of the EDTI site directory

EDTI has implemented their site directory or 'phone book' requirements through a Web interface (see www.epcor.ca, specifying the options Electricity, EPCOR Distribution and Transmission, and Site Directory). EDTI will be publishing a full version of the site directory along with daily updates that identify changes that occurred since the previous posting. It is expected that the retailer has the ability to extract this data from the Web and use it to identify site to address relationships as well as the load settlement agent to which enrollments are to be directed. This is the only means by which EDTI will publish the site to load settlement agent relationship. Although not part of the actual test, it is expected that the retailer will perform this independent activity.

2.2 Transactions forwarded by the retailer

As per the file transfer protocol established by the SSG and implemented by EDTI, the following transaction scenarios will occur – only electronic transfers will be tested through this verification. Multiple transactions of the same type should be included in the same file transmitted to EDTI.

Site Search

EDTI supports the search site request (SSR) transaction. The only difference between the information that is made available through this transaction and the site directory is that the load settlement agent only exists on the site directory and the meter number and meter feed description can only be obtained through the SSR transaction. If no problems are encountered with the transaction, a search site identifier result (SIR) transaction will be issued; otherwise, the SSR transaction will be returned with an appropriate failure reason code.

Test case reference:

- RV01 SSR transaction: this is a successful request that returns the results in the SIR transaction with a failure reason of 0000
- RV02 SSR transaction: this is an unsuccessful transaction that returns the original search site request parameters within the SIR transaction with a failure reason of 8500 indicating that sites at more than one premise were located

Retailer Site Enrollment

The means by which a retailer enrolls a site with EDTI is through the select retailer request transaction (SRR) transaction. Any problems that are found in the request will be noted on the SRR transaction and returned back to the originator. The select retailer notification (SRN) and notify old retailer (SRO) are only generated if no problems were encountered with the SRR transaction.

Test case reference:

- RV03 SRR transaction: this successful enrollment request will return an SRN transaction along with a power site characteristics retailer (PSR) transaction and a cumulative switch estimate consumption (CSE) transaction after settlement.
- RV04 SRR transaction: this unsuccessful enrollment request will return the original SRR

transaction with a transaction status of 0013 indicating that the site does not exist.

Customer Information

After enrollment occurs, the retailer must provide the most recent customer information through the UCI transaction. This transaction is also required whenever the customer changes at a site without enrollment.

Test case reference:

- RV05 UCI transaction: the retailer should submit this transaction with data that would normally be provided with this transaction – as this will be a valid transaction with no problems, a return confirmation transaction will not be sent back to the retailer
- RV06 UCI transaction: the retailer should submit this transaction with data that would normally be provided with this transaction – this transaction will be rejected and returned back to the retailer with a transaction status of 0013 indicating that the site does not exist.

Energize Site

If a site does not currently have power, the retailer will prepare and forward an energize request for a site. The retailer can use the default priority codes to indicate when the site should be energized or the retailer can specify an actual date. If the request is successful, then an energize site completion (ENC) transaction will be issued; otherwise, an energize site failure (ENF) transaction will be issued.

Test case reference:

- RV07 ENR transaction: this successful energize transaction will cause an ENC transaction to be returned back to the retailer
- RV08 ENR transaction: this unsuccessful energize transaction will cause an ENF transaction to be returned back to the retailer with a transaction status of 0013 indicating that the site does not exist.

Revoke Energize Site

EDTI provides an extended SSG transaction that allows a retailer to revoke a previously issued energize request before the work is completed. Although this transaction's use is not mandatory, this is the only means by which EDTI will allow a retailer to revoke an energize request. If the request is received in time, the energize request will be cancelled and this revoke energize request will be successful; otherwise, the request will return with a failed status code. In either case, the results will be returned in a revoke energize confirmation (REC) transaction.

Test case reference:

- RV09 RES transaction: this successful energize transaction will cause a REC transaction to be returned back to the retailer.
- RV10 RES transaction: this unsuccessful energize transaction will cause a REC transaction to be returned back to the retailer with a transaction status of 0013 indicating that the site does not exist.

De-energize Site

Although there are various reasons for de-energizing a site, the reasons can be classified as permanent or temporary. While any retailer can request a temporary de-energize (e.g., for seasonal shut down), only those retailer functions that provide regulated rate option or supplier of last resort services can

request a permanent de-energize of a site. When a de-energize is required, the retailer will issue a de-energize site request (DER). If the request is successful, then a de-energize site completion (DEC) transaction will be issued; otherwise, a de-energize site failure (DEF) transaction will be issued.

Test case reference:

- RV11 DER transaction: this successful energize transaction will cause an DEC transaction to be returned back to the retailer
- RV12 DER transaction: this unsuccessful energize transaction will cause an DEF transaction to be returned back to the retailer with a transaction status of 0013 indicating that the site does not exist

Revoke De-energize Site

EDTI supports the SSG transaction that allows a retailer to revoke a previously issued de-energize request before the work is completed. This is the only means by which EDTI will allow a retailer to revoke a deenergize request. If the request is received in time, the de-energize request will be cancelled and this revoke deenergize request will be successful; otherwise, the request will return with a failed status code. In either case, the results will be returned in a revoke de-energize confirmation (RDC) transaction.

Test case reference:

- RV13 RDR transaction: this successful energize transaction will cause an RDC transaction to be returned back to the retailer
- RV14 RDR transaction: this unsuccessful energize transaction will cause an RDC transaction to be returned back to the retailer with a transaction status of 0013 indicating that the site does not exist

Off-cycle Meter Read

In some instances as in customer ins and outs, a retailer may want to have the meter at a site read. While the execution of this request will not return the actual meter reading in the confirmation transaction, it will cause a cumulative meter reading (DCM) transaction to be created and passed back to the retailer(s) enrolled at the site during the meter reading period. Regardless as to whether the request was successfully carried out by EDTI, the results will be returned to the retailer using an off-cycle meter read confirmation (ROC) transaction.

Test case reference:

- RV15 ROR transaction: this successful meter read transaction would cause a ROC transaction to be returned back to the retailer
- RV16 ROR transaction: this unsuccessful meter read transaction will cause an ROC transaction to be returned back to the retailer with a transaction status of 0013 indicating that the site does not exist

De-select Site

Where a competitive rate retailer decides that they no longer want to have the site enrolled, the retailer prepares and transmits a de-select site request (DSR) transaction. When the request is received by EDTI, the transaction's sender and recipient data will be changed and the transaction will be directed to the SOLR responsible for the site. A confirmation will not be sent back to the originating retailer unless the transaction failed one of EDTI's validation criteria; in this case, a de-select site notification

(DSN) transaction will be returned to the retailer. SOLR will be responsible for issuing an enrollment request (SRR) to transfer the site from the retailer to SOLR.

Test case reference:

- RV17 DSR transaction: this successful request will result in the request being rEDTIrected to SOLR – as this will be a valid transaction with no problems, a return confirmation transaction will not be sent back to the retailer
- RV18 DSR transaction: this unsuccessful de-select site transaction will cause a DSN transaction to be returned back to the retailer with a transaction status of 0013 indicating that the site does not exist.

3. Production Facility DropChute Setup

Once the verification step has been completed by both EDTI and the retailer, the last step in the process is establishing the DropChute connection between the retailer's production environment and EDTI's production environment. The process for establishing the communications link is defined in Section 1. As this is a production environment, the only transactions that will be allowed during this activity is the site search request as it does not cause any updates to be made to the database.

Appendix A: Retailer Verification Test Cases

The following sections define the data requirements for each of the test cases referenced in Section 2.2. Where 'tbd' is mentioned, it is up to retailer to fill in these fields before sending the files to EDTI. These fields are the transaction date/time (when the transaction is created by the retailer), the retailer identifier (the retailer's GST number), and the retailer's business function identifier (only specified in the function being performed is for regulated rate RR or supplier of last resort SL).

a) Search Site

Field Name	RV01	RV02
1. Transaction ID	SSR	SSR
2. Transaction Date/Time	TBD	TBD
3. Retailer ID	TBD	TBD
4. Business Function ID	TBD	TBD
5. Wires Service Provider ID	0030	0030
6. Meridian		
7. Range		
8. Township		
9. Section		
10. Quarter		
11. Plan		
12. Block		
13. Lot		
14. Suite		
15. House Number	10408	15525
16. Street Name	82	103
17. Street Type	Avenue	Avenue
18. Street Direction		
19. Quadrant		
20. City	Edmonton	Edmonton
21. Province	AB	AB
22. Postal Code		T5P4E9

b) Site Enrollment



Field Name	RV03	RV04
1. Transaction ID	SRR	SRR
2. Transaction Date/Time	TBD	TBD
3. Retailer ID	TBD	TBD
4. Business Function ID	TBD	TBD
5. Site Identifier	0030110496977	0030140496977
6. Load Settlement Agent ID	1030	1030
7. Priority Code	3	3
8. Transaction Status Code		
9. Retailer Account Number		
10. Retailer Reference Number		

c) Customer Information

Field Name	RV05	RV06
1 Transaction Id.	UCI	UCI
2 Transaction Date/Time	TBD	TBD
3 Retailer Id.	TBD	TBD
4 Business Function Id.	TBD	TBD
5 Wires Service Provider Id.	0030	0030
6 Site Identifier	0030110496977	0030140496977
.....		
106 Transaction Status Code		
107 Retailer Account Number		
108 Retailer Reference Number		

d) Energize Site

Field Name	RV07	RV08
1 Transaction Id.	ENR	ENR
2 Transaction Date/Time	TBD	TBD
3 Retailer Id.	TBD	TBD
4 Business Function Id.	TBD	TBD
5 Wires Service Provider Id.	0030	0030
6 Site Identifier	0030110496977	0030140496977
7 Priority Code 5 5	5	5
8 Requested Energize Date		
9 Meter Access Instructions		

e) Revoke Energize Site

Field Name	RV09	RV10	RV09	RV10
1 Transaction Id.	RES		RES	
2 Transaction Date/Time	TBD		TBD	
3 Retailer Id.	TBD		TBD	
4 Business Function Id.	TBD		TBD	
5 Wires Service Provider Id.	0030		0030	
6 Site Identifier	0030110496977		0030140496977	

f) De-energize Site

Field Name	RV11	RV12
1 Transaction Id.	DER	DER
2 Transaction Date/Time	TBD	TBD



3 Retailer Id.	TBD	TBD
4 Business Function Id.	TBD	TBD
5 Wires Service Provider Id.	0030	0030
6 Site Identifier	0030110496977	0030140496977
7 Priority Code	5	5
8 Requested De-energize Date		
9 De-energize Reason	0005	0005

g) Revoke De-energize Site

Field Name	RV13	RV14
1 Transaction Id.	RDR	RDR
2 Transaction Date/Time	TBD	TBD
3 Retailer Id.	TBD	TBD
4 Business Function Id.	TBD	TBD
5 Wires Service Provider Id.	0030	0030
6 Site Identifier	0030110496977	0030140496977

h) Off-cycle Meter Read

Field Name	RV15	RV16
1 Transaction Id.	ROR	ROR
2 Transaction Date/Time	TBD	TBD
3 Retailer Identifier	TBD	TBD
4 Business Function Id.	TBD	TBD
5 Wire Service Provider Id.	0030	0030
6 Site Identifier	0030110496977	0030140496977
7 Priority Code	5	5
8 Requested Off-cycle Read Date		
9 Meter Access Instructions		

i) De-select Site

Field Name	RV15	RV16	RV17	RV18
1 Transaction Id.			DSR	DSR
2 Transaction Date/Time			TBD	TBD
3 Retailer Id.			TBD	TBD
4 Business Function Id.			TBD	TBD
5 Wires Service Provider Id.			0030	0030
6 Site Identifier			0030110496977	0030140496977
7 Requested De-select date				
8 De-select Reason Code			0001	0001