Proposal to increase the interruption reason field and unique request identifier

Electricity Information Exchange Protocol 5A, 13A, 13B, and 13C

Consultation paper

Submissions close: 5.00 pm on 14 September 2021

24 August 2021

Market Services

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1 What you need to know to make a submission

What this consultation paper is about

1.1 The purpose of this paper is to consult with interested parties on the Authority's proposal to increase the character limits of:

(a) the '*interruption reason'* field in the Electricity Information Exchange Protocol 5A (EIEP5A)

(b) the '*unique request identifier*' in EIEP13A, EIEP13B and EIEP13C.

1.2 EIEP5A relates to planned service interruption information (Appendix A). EIEP13A, EIEP13B and EIEP13C relate to consumption information (Appendix B).

1.3 The proposed amendment to EIEP5A is intended to provide greater clarity in EIEP5A, minimising the impact of planned service interruptions on customers and enabling better decisions to be made from the available information.

1.4 The proposed amendment to EIEP13A, EIEP13B and EIEP13C will enable the 'unique request identifier' field to allow the use of universally unique identifier version 4 (UUID v4) identifiers.

How to make a submission

1.5 Our preference is to receive submissions in electronic format (Microsoft Word) in the format shown in Appendix C. Submissions in electronic form should be emailed to EIEPconsultation@ea.govt.nz with "Proposed amendment to EIEP5A and EIEP13s" in the subject line.

1.6 If you cannot send your submission electronically, post one hard copy to either of the addresses below, or fax it to 04 460 8879.

Postal address	Physical address
Submissions Electricity Authority PO Box 10041 Wellington 6143	Submissions Electricity Authority Level 7, Harbour Tower 2 Hunter Street Wellington

1.7 Please note the Authority wants to publish all submissions it receives. If you consider that we should not publish any part of your submission, please

(a) Indicate which part should not be published

(b) Explain why you consider we should not publish that part

(c) Provide a version of your submission that we can publish (if we agree not to publish your full submission).

1.8 If you indicate there is part of your submission that should not be published, we will discuss with you before deciding whether to not publish that part of your submission.

1.9 However, please note that all submissions we receive, including any parts that we do not publish, can be requested under the Official Information Act 1982. This means we would be required to release material that we did not publish unless good reason existed under

the Official Information Act to withhold it. We would normally consult with you before releasing any material that you said should not be published.

When to make a submission

1.10 Please deliver your submissions by **5pm** on Tuesday **14 September 2021**.

1.11 We will acknowledge receipt of all submissions electronically. Please contact the Authority at marketoperations@ea.govt.nz or 04 460 8860 if you don't receive electronic acknowledgement of your submission within two business days.

Issue the Authority would like to address

The existing arrangements

2.1 The Authority provides EIEPs to enable the low cost, standardised and reliable exchange of information between:

(a) traders and distributors

(b) traders and their field services providers for faults and new connections

(c) retailers and consumers (or their authorised agents)

(d) retailers and any person who requests generally available retail pricing plan information.

2.2 EIEPs enable parties to efficiently exchange regular and/or large volumes of information. There are currently 14 different EIEPs, covering a diverse range of electricity information routinely exchanged between the parties listed in clause 2.1 above.

2.3 Most participants have automated systems that create EIEPs and upload the information from EIEPs received. Any change to a format or business requirements can have a significant impact on participants' and field services providers' systems. Before any change to an EIEP format is made, the Authority must consult with affected parties.

2.4 EIEP5A is the file format used by distributors to:

(a) advise traders of planned service interruptions

(b) provide planned service interruption information to enable traders to:

(i) record details in their systems

(ii) notify affected customers where required under the relevant use of system agreement.

2.5 EIEP13A and EIEP13B are the file formats used by retailers when providing consumption information to consumers.

2.6 EIEP13C is the file format that can be used by consumers or their authorised agents to request consumption information from retailers.

Issue with the existing arrangements

EIEP5A

2.7 The Authority received a request from a participant to increase the character limit of the 'interruption reason' field in EIEP5A from 50 characters to 255 characters.

2.8 The current 50-character field limit is restrictive and does not allow sufficient space to include any meaningful information about the planned service interruption. Meaningful information will ensure customer expectations are better managed and are provided with the best possible explanation for the service interruption.

2.9 The proposed change to the 'interruption reason' field is supported by the Standing Data Formats Group (SDFG). The SDFG was set up to:

(a) consider suggestions by affected parties for the addition of new, or changes to the EIEPs made through the EIEP review process

(b) consider suggestions by affected parties for the addition of new, or changes to existing file formats between participants and the service provider positions of the registry or the reconciliation manager

(c) progress the development of new file exchange formats or recommend changes to the Authority for existing file exchange formats where it is agreed that participants would benefit.

EIEP13A, EIEP13B and EIEP13C

2.10 The Authority received a request from a participant to increase the character limit of the 'unique request identifier' field in EIEP13A, EIEP13B and EIEP13C from 15 characters to 36 characters.

2.11 The current 15-character field limit is restrictive and does not allow enough characters to generate identifiers using UUID v4. UUID v4 is a standardised methodology for generating what is essentially a unique identifier without the need for a central registration authority or coordination between the different parties generating the identifiers.

2.12 The proposed change to the 'unique request identifier' is supported by the SDFG.

Why the Authority is addressing this issue now

2.13 The Authority regularly consults with affected participants on changes to the EIEPs, generally with more than one change required at a time. We are seeking feedback on the change to EIEP5A as a priority as there is a corresponding piece of work in progress to determine whether the Authority mandates a delivery mechanism for EIEP5A. The Authority expects to provide a decision on these issues at the same time.

2.14 It is timely to consult on a change to EIEP13A, EIEP13B and EIEP13C as there is demand for updating the formats to allow for the use of UUID v4.

2.15 If there is widespread support for this amendment, the Authority proposes an implementation timeframe of three months to make the necessary system changes to accommodate the increase in the interruption reason field.

Q1. Do you agree the issue identified by the Authority is worthy of attention?

Q2. Do you agree that three months is adequate to implement any system changes required? If not, what timeframe would you consider adequate?

Regulatory statement for the proposed amendment

3.1 While the proposed amendments to EIEP5A, EPEI13A, EIEP13B and EIEP13C do not amend the Electricity Industry Participation Code 2010 (Code), the Authority considers it is prudent to have regard to the objectives, benefits, and costs of the proposal.

Objectives and benefits of the proposed amendment

3.2 Increasing the 'interruption reason' field in EIEP5A from 50 characters to 255 characters would:

(a) provide greater clarity about the reason for the planned service interruption

(b) enable traders to provide more meaningful information to its customers

(c) overall provide a better experience for customers.

3.3 Increasing the ‘‘unique request identifier’ field in EIEP13A, EIEP13B and EIEP13C from 15 characters to 36 characters would enable retailers, consumers and their agents to use more complex unique identifiers, including (but not limited to) UUID v4.

Q3. Do you agree with the objectives and benefits of the proposed amendment? If not, why not?

Identifying the costs of the proposed amendment

3.4 The Authority is aware that participants, consumers and their agents will have various system costs with implementing the proposed amendments to EIEP5A, EIEP13A, EIEP13B and EIEP13C. The Authority does not have good information on the cost to change the field size of free text fields, but believes it is likely to be negligible to low. For this reason, the Authority seeks participants feedback on:

(a) the cost to increase the interruption reason field

(b) whether you consider the benefit of the proposal outweighs its cost.

Q4. What would the cost be to your organisation to make the proposed amendments?

Q5. Do you agree the benefits of the proposed amendment outweigh its costs?

The proposed amendment complies with section 32(1) of the Act

3.5 The Authority’s objective under section 15 of the Act is to promote competition in, reliable supply by, and efficient operation of, the electricity industry for the long-term benefit of consumers.

3.6 Section 32(1) of the Act says that the Code may contain any provisions that are consistent with the Authority’s objective and is necessary or desirable to promote one or all of the following:

Table 1: How the proposal complies with section 32(1) of the Act

(a) competition in the electricity industry;	The proposed amendment will not affect competition in the electricity industry.
(b) the reliable supply of electricity to consumers;	The proposed amendment will not affect the reliable supply of electricity to consumers.
(c) the efficient operation of the electricity industry;	The proposed amendment will promote the efficient operation of the electricity industry by ensuring information provided is meaningful and can support standardised methodologies.
(d) the performance by the Authority of its functions;	The proposed amendment will not materially affect the performance of the Authority.

(e) any other matter specifically referred to in this Act as a matter for inclusion in the Code.	The proposed amendment will not materially affect any other matter specifically referred to in the Act for inclusion in the Code.

Appendix A Draft EIEP5A with proposed interruption reason field increased

Electricity Information Exchange Protocols (EIEP)

EIEP5A: Planned service interruptions

Effective date pending outcome from further EIEP consultation

Version control

Version	Date amended	EIEP Ref	Comments
10	27 November 2013	EIEP5	Sender format field decreased from 50 to 20 characters.
10.1 draft	30 June 2017	EIEP5A	Amendments include: Outcome from split of former combined EIEP5 (Service interruptions) into separate EIEP5A (Planned service interruptions) and EIEP5B (Unplanned service interruptions) EIEPs Improvements to add clarity and consistency to content PLI (initial advice only) added, PLR repurposed for all revisions Optional URL and PLR revision reason fields added. Amended business requirements to specify each interruption event must be represented in its own file RES description row added to provide headers for manual interpretation of fields
11	2 October 2018	EIEP5A	Amendments include: Improvements to add further clarity and consistency following submissions received in response to the 4 August 2017 consultation paper and the Authority's responses and decisions set out in the decision paper. Amended business requirements 11, 12 and 17 to ensure clarity for planned service interruption events that include multiple service interruptions Amended business requirement 14 to provide guidance for when a planned service interruption should be cancelled and replaced with a new event Add a new business rule setting out default notification periods EIEP5A to become a regulated EIEP Remove the additional description (DES) row New business requirement 23 to ensure clarity that active and inactive ICPs should be included in the file.

Contents

1 EIEP5A: Planned service interruptions

Title:	**EIEP5A: Planned service interruptions**
Version:	11
Application:	This protocol allows distributors to provide planned service interruption information to traders to enable traders to record details in their customer information systems and notify affected customers where required to do so by the relevant use of system agreement
Participants:	Distributor/Trader
Code reference:	
Dependencies:	The use of system agreement between the distributor and the trader should also set out processes relevant to planned service interruptions (including which party is required to notify affected consumers) that the distributor and/or the trader must comply with.

Description of when this protocol applies

This protocol is used by distributors to advise traders of planned service interruptions and provide planned service interruption information to enable traders to record details in their customer information systems and to notify affected customers where required to do so by the relevant use of system agreement.

Business requirements

1. The distributor and trader must agree on the file transport mechanism by which the distributor will provide information and the destination address. Non-manual interfaces use electronic file transfer either via File Transfer Protocol (FTP) or Secure File Transfer Protocol (SFTP) connectivity. In the case of FTP a security mechanism must be used to protect confidentiality. Whatever method is agreed that method must be in a format approved and published by the Authority.
2. Where information is required to be transferred using email, the contents must be delivered in a secure manner and password protected.
3. This protocol will be used in the timeframes when required as agreed between parties.
4. An agent may provide data on behalf of the distributor, in which case the header will identify the distributor. The appointment of an agent must be a permission function of the distributor and receiving traders must allow for agents in their systems.
5. A distributor must only use codes that are:
    (a) stipulated in this document;
    (b) approved and published by the Electricity Authority; or
    (c) determined in the registry and reconciliation functional specifications.
6. Information provided in the file will be consistent with the terminology used in the Glossary of Standard Terms published by the Authority.
7. The file must contain all mandatory information, failure to provide the required information will result in the file being deemed as incomplete.
8. Information is to be provided in accordance with the following status codes unless otherwise specified:
    O Optional

Business requirements

M Mandatory

C Conditional - Mandatory if available, otherwise Null (also refer to validation rules)

9. To assist in understanding where these apply when files can be communicated both ways between participants, the relevant status code is given in the assigned column either Trader to Distributor or Distributor to Trader.
10. This file is to be used by distributors to give traders advice of a planned service interruption affecting certain ICPs, the area affected, planned service interruption reason, and planned service interruption date(s) and off/on times. There is also provision for an alternative date or dates and times if the planned service interruption cannot take place on the original date(s) and time(s).
11. This protocol provides for planned service interruption events where the event includes a single service interruption, and where the event includes multiple service interruption.
12. For an event that includes a single service interruption, the distributor provides a list of affected ICPs with the appropriate date(s) and single off/on time. For an event that includes more than one service interruption on the same, consecutive or near-consecutive days, for the same group (or largely the same group) of ICPs, the distributor provides a single file with a list of ICPs affected and the appropriate dates and off/on times, and the same unique distributor event number.
13. The protocol can also be used to advise of a previously notified planned service interruption being cancelled by means of the appropriate communication type code in the file, and the file must include all ICPs affected.
14. Where the distributor wishes to revise any information previously provided in a file (except for a cancellation) due to rescheduling (change of date(s) and/or off/on times), a change to the list of ICPs affected, reason for the planned service interruption, area affected or feeder details, the distributor must provide an updated file using the appropriate communication type code for a revision, and the file must include all ICPs affected by the planned service interruption. Significant changes to the ICPs affected must be processed as a cancellation and new planned service interruption.
15. A notification for rescheduling is not required where a planned service interruption is simply being shifted to an alternative date and off/on times that have already been included in a file previously provided to traders.
16. Unless otherwise agreed, every notification file must include all affected ICPs regardless of their trader as recorded on the registry.
17. Each file may only provide for a single planned service interruption event (which may include more than one interruption), and each initial advice file must have a unique distributor event number.
18. The distributor event number must be the original distributor event number used in the initial advice if revising or cancelling a planned service interruption previously communicated in an EIEP5A file.
19. The recipient is to ensure that they apply the files in the order that they are received, with the latest information being the most current.
20. Where, in accordance with the use of system agreement, traders are required to provide advance notification to affected customers of a planned service interruption the file will be used as a source file for a mail merge.
21. If the trader or distributor becomes aware of a format error or the file is incomplete, that party must advise the other party as soon as practical after becoming aware of the issue.
22. In the absence of alternative notification periods agreed between the parties, the distributor is expected to provide the following minimum notice periods to traders:
    (a) Initial advice (PLS): 10 business days
    (b) Initial advice for information only (PLI): 4 business days
    (c) Revision (PLR): 7 business days (i.e. it must be rescheduled if fewer than 7 business days remain)
    (d) Cancellation (PLC): 4 business days where practicable
23. For clarity, all active and inactive ICPs should be included within the file.

Business requirements

General requirements
1 If there are any conflicts between this document and the Code, the Code will take precedence. 2 In general, all participants must provide the recipient with: (a) accurate information for all points of connection at which they are responsible for the current consumption period (b) when available, revised information for all points of connection at which they have purchased or sold electricity during any previous consumption period (c) any additional information requested in respect of any consumption period. 3 A number of data transfers are required between participants in order for the EIEP process to take place. These data flows if not previously agreed between participants are to be those recommended by the Authority. At all times data transfers must take place in a secure and predictable manner. 4 It is the responsibility of the parties to meet the principles of the Privacy Act when exchanging customer information.

Data inputs

Event data	Format	Distributor to Trader: Mandatory/Optional/Conditional	Validation rules
Header record type	Char 3	M	HDR – indicates the row is a header record type
File type	Char 7	M	Planned Service Interruption PLINT
Version of EIEP	Num 3.1	M	Version of EIEP protocol that is being used for this file.
Sender	Char 20	C	Name of sending party. Participant identifier to be used if the sender is a participant.
Sent on behalf of participant identifier	Char 4	C	Participant identifier of party on whose behalf data is provided. Mandatory if sender not a participant
Recipient Participant identifier	Char 4	M	Valid recipient participant identifier
Report run date	DD/MM/YYYY	M	Date the report is run
Report run time	HH:MM:SS	M	Time the report is run

Event data	Format	Distributor to Trader: Mandatory/Optional/Conditional	Validation rules
Unique File identifier	Char 15	M	Number that uniquely identifies the file
Number of detail records	Num 8	M	Total number of records in report
Communication type code	Char 3	M	As per table of planned service interruption communication type codes following this EIEP
Distributor event number	Char 15	M	Distributor's unique reference number for the planned service interruption.
Spare		O	Null
Utility type	Char 1	M	G (Gas) or E (Electricity)

Event data	Format	Distributor to Trader: Mandatory/Optional/Conditional	Validation rules
Detail record type	Char 3	M	DET – indicates the row is a detail record.
ICP identifier	Char 15	M	ICP identifier means a unique identifier for an ICP created by a distributor in accordance with clause 1 of Schedule 11.1
Feeder	Char 20	C	Transformer and feeder number if available.
Street/area affected	Char 255	M	Best description of locality affected if known
Interruption reason	Char ~~50~~255	M	Reason for planned interruption
Number of interruptions notified	Num 1	M	Number of planned interruptions notified (up to a maximum of 5)
Distributor event number	Char 15	M	Distributor's unique reference number for service interruption
Interruption 1 start date	DD/MM/YYYY	M	Date first interruption to commence
Interruption 1 restore date	DD/MM/YYYY	M	Most accurate indication of date when power will be restored for first interruption
Interruption 1 start time	HH:MM	M	Start time for first interruption

Event data	Format	Distributor to Trader: Mandatory/Optional/Conditional	Validation rules
Interruption 1 expected or actual restore time	HH:MM	M	Most accurate indication of time when power will be restored for first interruption
Interruption 1 alternative date	DD/MM/YYYY	C	Alternative date if first planned interruption cannot proceed on proposed start date. Mandatory if applicable, otherwise Null
Interruption 2 start date	DD/MM/YYYY	C	Date second interruption to commence Mandatory if applicable, otherwise Null
Interruption 2 restore date	DD/MM/YYYY	C	Most accurate indication of date when power will be restored for second interruption Mandatory if applicable, otherwise Null
Interruption 2 start time	HH:MM	C	Start time for second interruption Mandatory if applicable, otherwise Null
Interruption 2 expected or actual restore time	HH:MM	C	Most accurate indication of time when power will be restored for second interruption Mandatory if applicable, otherwise Null
Interruption 2 alternative date	DD/MM/YYYY	C	Alternative date if second planned interruption cannot proceed on proposed start date. Mandatory if applicable, otherwise Null
Interruption 3 start date	DD/MM/YYYY	C	Date third interruption to commence Mandatory if applicable, otherwise Null
Interruption 3 restore date	DD/MM/YYYY	C	Most accurate indication of date when power will be restored for third interruption Mandatory if applicable, otherwise Null
Interruption 3 start time	HH:MM	C	Start time for third interruption Mandatory if applicable, otherwise Null
Interruption 3 expected or actual restore time	HH:MM	C	Most accurate indication of time when power will be restored for third interruption Mandatory if applicable, otherwise Null
Interruption 3 alternative date	DD/MM/YYYY	C	Alternative date if third planned interruption cannot proceed on proposed start date. Mandatory if applicable, otherwise Null
Interruption 4 start date	DD/MM/YYYY	C	Date fourth interruption to commence Mandatory if applicable, otherwise Null

Event data	Format	Distributor to Trader: Mandatory/Optional/Conditional	Validation rules
Interruption 4 restore date	DD/MM/YYYY	C	Most accurate indication of date when power will be restored for fourth interruption Mandatory if applicable, otherwise Null
Interruption 4 start time	HH:MM	C	Start time for fourth interruption Mandatory if applicable, otherwise Null
Interruption 4 expected or actual restore time	HH:MM	C	Most accurate indication of time when power will be restored for fourth interruption Mandatory if applicable, otherwise Null
Interruption 4 alternative date	DD/MM/YYYY	C	Alternative date if fourth planned interruption cannot proceed on proposed start date. Mandatory if applicable, otherwise Null
Interruption 5 start date	DD/MM/YYYY	C	Date fifth interruption to commence Mandatory if applicable, otherwise Null
Interruption 5 restore date	DD/MM/YYYY	C	Most accurate indication of date when power will be restored for fifth interruption Mandatory if applicable, otherwise Null
Interruption 5 start time	HH:MM	C	Start time for fifth interruption Mandatory if applicable, otherwise Null
Interruption 5 expected or actual restore time	HH:MM	C	Most accurate indication of time when power will be restored for fifth interruption Mandatory if applicable, otherwise Null
Interruption 5 alternative date	DD/MM/YYYY	C	Alternative date if fifth planned interruption cannot proceed on proposed start date. Mandatory if applicable, otherwise Null
Revision reason	Char 50	O	Reason for revision (PLR communication type code)
URL	Char 50	O	URL for updated or additional information if available on distributor's website

Protocol specifications
1 The information is to be provided as a comma delimited text file. Commas are therefore prohibited within fields. 2 Each formatted file will consist of one or more records, with each record being a single line of text as defined in the business rules. Records are to be delimited with one of the following: (a) a carriage return character and a line feed character combination (ASCII characters 13 and 10) commonly used in Windows based programs, or (b) a line feed character (ASCII character 10) commonly used in Unix based programs, or (c) a carriage return character (ASCII character 13) commonly used in Mac based programs. 3 Data fields within files are defined using the attributes in the table following these specifications. 4 Matching of file names, code list values, etc, are to be case insensitive. 5 Each data file will contain only one header by may contain any number of detail records. 6 The first record of a file contains 'Header" information followed by zero or more detail lines. 7 The following file naming convention is to be used with this file: Sender + Utility Type + Recipient + File Type + Report Month + Report Run Date + UniqueID# (e.g. hhmm run time, or ICP but limited to Char (60)) with an extension of .TXT and with the components concatenated using the underscore character, to assist readability. e.g. TRUS_E_UNET_ PLINT_200007_20000802_1232.TXT [Char4_Char1_Char4_ Char7_yyyymm_yyyymmdd_UniqueID.TXT

Data outputs

2 Table of codes used in EIEP5A

2.1 Table 1 List of attributes to define data fields used in EIEP5A

Logical format	Data type	Rules	Example
INT (n)	Integer	ASCII representation of an integer number (i.e. no decimals), no leading zeros, no spaces, a leading "-" if negative (no sign if positive), with 1 to n digits. Numbers only: ASCII characters 48 to 57, and 45 where applicable.	INT (4) 12 -1234
NUM (n.d)	Decimal	ASCII representation of a decimal number (i.e. a rational number), no spaces, a leading "-" if negative (no sign if positive), with up n digits including up to (n minus d) digits to the left of the decimal place, and up to d digits to the right of the decimal place.	NUM (6.2) 123.45 1234.0 -12.32 NUM (6.3)

Logical format	Data type	Rules	Example
		For integers, the decimal point is not required. A decimal point on its own must not be used to represent zero (use “0”) Trailing zeros are optional.	-0.123 23.987 987.000 8
		No leading zeros other than when the number starts with “0.” Numbers only: ASCII characters 48 to 57, and 45/46 where applicable.	
CHAR (n)	Text	Up to n characters (ASCII characters 32 to 43 and 45 to 126 only). As commas (ASCII character 44) are used as field separators, they must not be used within the field data (it is recommended that any commas found in source data be changed to a semi-colon (ASCII character 59) when files are created. Where customer names require separation, a tilde character (~) should be used. Fields must not contain any leading or trailing spaces.	The quick brown fox
DATE	Date	ASCII format with: Year represented as: — YYYY for century and year Month represented as: — MM to display leading zero Day represented as — DD to display leading zero ASCII format for any separators used	YYYYMMDD e.g. 20050216 DD/MM/YYYY e.g. 16/02/2005
TIME	Time	ASCII in 24 hour format Hour represented as HH with leading zeros Minutes represented as MM with leading zeros Seconds represented as SS with leading zeros ASCII format for any separators used Note: both NZST and NZDT will be used and will be indicated as necessary	HH:MM:SS e.g. 13:15:01 HH:MM e.g. 13:15
DATETIME	Date/Time	ASCII format with same rules as both Date and Time Data Types	YYYYMMDDHHMMSS e.g. 20050216131501
NULL	Null	Field contains no data	

2.2 Table 2 ASCII character set for use within fields of EIEP5A

Character	ASCII
32	Space
33	!
34	"
35	#
36	$
37	%
38	&
39	'
40	(
41	)
42	*
43	+
45	-
46	.
47	/
48	0
49	1
50	2
51	3
52	4
53	5
54	6
55	7
56	8
57	9
58	:
59	;
60	<
61	=
62	>
63	?

Character	ASCII
64	@
65	A
66	B
67	C
68	D
69	E
70	F
71	G
72	H
73	I
74	J
75	K
76	L
77	M
78	N
79	O
80	P
81	Q
82	R
83	S
84	T
85	U
86	V
87	W
88	X
89	Y
90	Z
91	[
92	\
93	]
94	^
95	_
96	`

Character	ASCII
97	a
98	b
99	c
100	d
101	e
102	f
103	g
104	h
105	i
106	j
107	k
108	l
109	m
110	n
111	o
112	p
113	q
114	r
115	s
116	t
117	u
118	v
119	w
120	x
121	y
122	z
123	{
124	|
125	}
126	~

2.3 Table 3 Planned service interruption communication type codes for use in EIEP5A

Communication type code	Description
PLS	Planned Service Interruption - Initial Advice. To be used where the trader is required to notify affected customers.
PLI	Planned Service Interruption – Initial advice for information only, customers already notified. To be used where the distributor is required to notify or has optionally notified affected consumers.
PLR	Planned Service Interruption – Revision (other than a cancellation). Used to revise any information previously provided in a file which may be due rescheduling (change of date(s) and/or off/on times), change to the list of ICPs affected, reason for the planned service interruption, area affected or feeder details.
PLC	Planned Service Interruption – Cancellation

Appendix B Draft EIEP13A, EIEP13B and EIEP13C with unique request identifier field increased

EIEP 13A: Electricity conveyed information for consumers (half hour and non-half hour detailed)

Title:	**EIEP 13A: Electricity conveyed information for consumers (half hour and non-half hour detailed)**
Version:	1.2
Application:	This protocol must be used by retailers to provide electricity consumption information electronically to a consumer or to a consumer's authorised agent if a request is made in accordance with clause 11.32B of the Code.
Participants:	Retailers
Non-participants:	Consumers and authorised consumers' agents
Code reference:	Clauses 11.32A – 11.32F (effective from 1 February 2016)
Dependencies:	The Code and procedures document also contains requirements relevant to the information to be provided in files that are created in accordance with this format specification.

Description of when this protocol applies

This protocol applies when a consumer or a consumer's authorised agent requests detailed consumption information.

On request from a consumer or a consumer's authorised agent, a data file formatted in accordance with this EIEP 13A must be forwarded by the retailer to the consumer, or the consumer's authorised agent, to provide consumption information as required by clauses 11.32A – 11.32F of the Code.

Business requirements

1 Retailer's must give consumption information to consumers (clause 11.32F(2)(b)) in the format specified in this document.

2 If a request for EIEP 13A is received from a consumer's authorised agent via the EIEP transfer hub, the response will be sent via the EIEP transfer hub. However nothing prevents an agent requesting EIEP 13A via a valid email address and receiving a response to that valid email address.

3 Electricity conveyed is to be expressed as compensation-corrected volumes relevant to a date and time period that is defined by a start date/time value and an end date/time value.

4 The time period used in an EIEP 13A must be the most detailed consumption information that the retailer holds in its systems. For example, if a retailer holds half hourly information for publication on the web and non-half hourly information in its billing system, then the retailer should provide an EIEP 13A using half hour time periods. Retailers most frequently hold

Business requirements	
	consumption information in (a) monthly and (b) half hourly time periods.
5	Any read period comprising date and time can be accommodated using this format, whether monthly, weekly, daily, hourly, half hourly or sub half hourly:
5.1	If the interval of a consumption record is less than one whole day, the Time part of the DateTime formatted value must reflect the appropriate hours, minutes and seconds of the record (eg a half hour trading period record could have a start date/time of “01/03/2016 00:30:01” and an end date/time of “01/03/2016 01:00:00”). For clarity, the last period of that day can be shown as a start datetime of 01/03/2016 11:30:01” and an end date/time of either “02/03/2016 00:00:00” or “01/03/2016 24:00:00”).
5.2	If the interval of a record is equal to or longer than one whole day, the Time part of the DateTime format is to be coded as 00:00:01 (eg a consumption record for the period 1 May 2016 to 5 June 2016 (inclusive) would have a start date/time of “01/05/2016 00:00:01” and an end date/time of either “06/06/2016 00:00:00” or “05/06/2016 24:00:00”).
6	A retailer must only use codes that are: (a) stipulated in this document; or (b) approved and published by the Authority; or (c) determined in the registry and reconciliation functional specifications.
7	Information provided in the file must be consistent with the terminology used in the Glossary of Standard Terms published by the Authority.
8	The file must contain all mandatory information. Failure to provide the required information will result in the file being deemed as incomplete.
9	Information must be provided in accordance with the following status codes unless otherwise specified: O Optional M Mandatory where applicable C Conditional - Mandatory if available and required by recipient, otherwise optional.
10	The consumption information to be provided in an EIEP 13A formatted file is the energy volume imported or exported at a meter register on the requested ICP within a specified time period, after any ‘multiplier’ or compensation factor has been applied to the meter read, in units of: (a) kilowatt hours (kWh) for active energy; and (b) kilovolt ampere reactive hours (kVArh) for reactive energy.
11	Unmetered load is to be calculated as the volume of unmetered electricity applicable for the period between invoicing dates.
12	The amount of historical consumption information to be provided by the retailer in response to a consumer request is specified in clause 11.32A of the Code.
13	If reactive energy volumes are held by the retailer, they must be provided if the consumer (or their agent) specifically requests this.
14	If the retailer becomes aware of a format error in a transmitted file, or the file is incomplete or otherwise inaccurate, the retailer must advise the consumer as soon as practicable after becoming aware of the issue. This obligation is contained in clause 11.2 of the Code.
15	If previously transmitted information is to be corrected, the retailer must provide a complete replacement file.
16	The file must be named in accordance with the registry functional specification EI-030.
17	All DateTime formatted data must specify NZDT (New Zealand Daylight Savings time)

Business requirements
values, adjusted in accordance with clause 15.36 of the Code.

General requirements
1. If there are any conflicts between this document and the Code, the Code will take precedence. 2. For clarity, it is the responsibility of retailers to: (a) comply with the Privacy Act (b) maintain business confidentiality when exchanging consumer details (c) ensure that agent arrangements are recorded.

Data inputs
Information from a retailer's back office system.

Event data	Format	Retailer to Consumer: Mandatory/ Optional/Conditional	Validation rules
Header record type	Char 3	M	HDR – indicates the row is a header record type
File type	Char 7	M	Must be ICPCONS.
Version of EIEP	Num 3.1	M	Version of EIEP that is being used for this file.
Sender	Char 20	M	Name of sending party. Authority-approved participant and non-participant identifiers must be used where allocated.
Sent on behalf of	Char 4	M	Participant identifier of party on whose behalf consumption information is provided.
Recipient Participant identifier	Char 4	M	Valid recipient participant or non-participant identifier. In the case of a a) consumer this should be CUST b) consumer's agent should be the Authority approved non-participant identifier
Report run date	DD/MM/YYYY	M	Date the report is run
Unique request identifier	Char ~~15~~36	M	If the unique request identifier is provided in the requesting EIEP 13C it must be provided in EIEP 13A, otherwise BLANK.
Number of detail records	Num 8	M	Total number of DET records in report
Report period start date	DD/MM/YYYY	M	Report run start date (inclusive)
Report period end date	DD/MM/YYYY	M	Report run end date (inclusive)

Event data	Format	Retailer to Consumer: Mandatory/ Optional/ Conditional	Validation rules
Detail record type	Char 3	M	DET – indicates the row is a detail record of consumption information.
Consumer Authorisation code	Char 20	C	A unique number that links the data response to the request. Mandatory if the corresponding request was made with EIEP 13C, otherwise BLANK
ICP identifier	Char 15	M	ICP identifier means a unique identifier for an ICP created by a distributor in accordance with clause 1 of Schedule 11.1
Response code	Char 3	M	Indicates that the request for the specific ICP identifier is either accepted or rejected. The following codes must be used: 000 – Request accepted, data follows 001 – Request rejected, no ICP or address or customer match 002 – Request rejected, no ICP record 003 – Request rejected, no customer record 004 – Request rejected, no agent authority If Response code is 000, all of the following fields are required per the field specifications If Response code is 001, 002, 003 or 004, all of the following values in the DET row are to be set to NULL.
NZDT adjustment	Char 4	C	Refer to clause 15.36 of Part 15 of the Code. If information is NZDT adjusted, the field may be left BLANK, otherwise if it is not adjusted, 'NZST' must be used.
Metering component serial number	Char 30	C	Mandatory for a metering component. Identifies the metering component for installations that have multiple metering components. For unmetered load "UNM" must be used

Event data	Format	Retailer to Consumer: Mandatory/ Optional/ Conditional	Validation rules
Energy Flow direction	Char 1	M	An identifier of whether the channel records the import (injection from the ICP into the Network) ("I"), or the export (extraction from the Network to the ICP) ("X").
Register content code	Char 6	M	Identifies the register content code that information is provided for. Refer to SD-020 of the registry functional specification for a list of register content codes
Period of availability	Char 6	M	Identifies the period of availability that applies to the register content code
Read period start date and time	DD/MM/YYYY HH:MM:SS	M	Date and time of start of read period.
Read period end date and time	DD/MM/YYYY HH:MM:SS	M	Date and time of end of read period
Read status	Char 2	M	RD = actual ES = estimated
Unit quantity active energy volume	Num 12.2	M	Volume information for injection or extraction in kWh
Unit quantity reactive energy volume	Num 12.2	C	Volume information for extraction in kVArh. Mandatory if requested and the information is available to the retailer, otherwise optional. BLANK if information is not provided

Protocol specifications

1. The information is to be provided as a comma delimited text file (CSV). Commas are therefore prohibited within fields.
2. Each formatted file must consist of one or more records, with each record being a single line of text as defined in this format specification document. Records must be delimited with one of the following:
    (i) a carriage return character and a line feed character combination (ASCII characters 13 and 10) commonly used in the Microsoft Windows operating system
    (ii) a line feed character (ASCII character 10) commonly used in the Unix operating system, or
    (iii) a carriage return character (ASCII character 13) commonly used in the Apple OS X

Protocol specifications
operating system. 3. Data fields within files must be defined using the attributes in the table following these specifications. 4. Matching of file names, code list values, etc, must be case insensitive. 5. Any number of ICPs, register content codes and date range may be included in a single file. 6. Each data file must contain only one header line. 7. The first record of a file must contain “Header” information followed by zero or more detail lines. 8. File naming process shall be in accordance with the registry functional specification EI-030

Data outputs
1. File delivered electronically to a consumer or to the consumer’s agent

1 Table of codes used in EIEP 13A

1.1 Table 1 List of attributes to define data fields used in EIEP 13A

Logical format	Data type	Rules	Example
INT (n)	Integer	ASCII representation of an integer number (ie no decimals), no leading zeros, no spaces, a leading “-“ if negative (no sign if positive), with 1 to n digits. Numbers only: ASCII characters 48 to 57, and 45 where applicable.	INT (4) 12 -1234
NUM (n.d)	Decimal	ASCII representation of a decimal number (ie a rational number), no spaces, a leading “-“ if negative (no sign if positive), with up n digits including up to (n minus d) digits to the left of the decimal place, and up to d digits to the right of the decimal place. For integers, the decimal point is not required. A decimal point on its own must not be used to represent zero (use “0”) Trailing zeros are optional. No leading zeros other than when the number starts with “0.” Numbers only: ASCII characters 48 to 57, and 45/46 where applicable.	NUM (6.2) 123.45 1234.0 -12.32 NUM (6.3) -0.123 23.987 987.000 8

Logical format	Data type	Rules	Example
CHAR (n)	Text	Up to n characters (ASCII characters 32 to 43 and 45 to 126 only). As commas (ASCII character 44) are used as field separators, they must not be used within the field data (it is recommended that any commas found in source data be changed to a semi-colon (ASCII character 59) when files are created. Fields must not contain any leading or trailing spaces.	The quick brown fox
DATE	Date	ASCII format DD/MM/YYYY with: Year represented as: — YYYY for century and year Month represented as: — MM to display leading zero Day represented as — DD to display leading zero ASCII format for separator {forward slash (47)}	16/02/2005
DATETIME	DateTime	ASCII format DD/MM/YYYY HH:MM:SS Year represented as: — YYYY for century and year Month represented as: — MM to display leading zero Day represented as — DD to display leading zero Hour represented as — HH to display leading zero Minute represented as — MM to display leading zero Second represented as — SS to display leading zero ASCII format for separators {forward slash (47), colon (58), space (32)}	09/03/2015 09:00 (note the ASCII ‘space’ separator between YYYY and HH)

Logical format	Data type	Rules	Example
BLANK		Field contains no data (appears in the file as two sequential commas (,,))	,,

1.2 Table 2 ASCII character set for use within fields of EIEP 13A

Character	ASCII
32	Space
33	!
34	"
35	#
36	$
37	%
38	&
39	'
40	(
41	)
42	*
43	+
45	-
46	.
47	/
48	0
49	1
50	2
51	3
52	4
53	5
54	6
55	7
56	8
57	9
58	:
59	;
60	<
61	=
62	>
63	?

Character	ASCII
64	@
65	A
66	B
67	C
68	D
69	E
70	F
71	G
72	H
73	I
74	J
75	K
76	L
77	M
78	N
79	O
80	P
81	Q
82	R
83	S
84	T
85	U
86	V
87	W
88	X
89	Y
90	Z
91	[
92	\
93	]
94	^
95	_
96	`

Character	ASCII
97	a
98	b
99	c
100	d
101	e
102	f
103	g
104	h
105	i
106	j
107	k
108	l
109	m
110	n
111	o
112	p
113	q
114	r
115	s
116	t
117	u
118	v
119	w
120	x
121	y
122	z
123	{
124	|
125	}
126	~

Note: ASCII control characters 00 – 31 are not to be used within fields.

Glossary of abbreviations and terms

Act	Electricity Industry Act 2010
AMI	Advanced metering infrastructure
Authority	Electricity Authority
Consumer	means a person who is supplied electricity for consumption, and includes a distributor, a retailer or a generator if the distributor, or the retailer or the generator is supplied with electricity for its own consumption
CSV	Comma separated values
EIEP	Electricity Information Exchange Protocol
FTP	File Transfer Protocol
ICP	Installation Control Point
kWh	Kilowatt hour
Registry	National database that contains information on every point of connection on a network to or from a site for which electricity is supplied or generated.

EIEP 13B: Summary consumption information

Title:	**EIEP 13B: Summary consumption information**
Version:	1.4
Application:	This protocol specifies how retailers (or their appointed agents) must provide summary consumption information
Participants:	Retailers
Users:	Consumers and authorised consumers' agents
Code reference:	Clause 11.32A – 11.32F (effective from 1 February 2016)
Dependencies:	The Code and the procedures document also contain requirements relevant to the information to be provided in files that are created in accordance with this format specification.

When this protocol applies

This protocol applies when a consumer or a consumer's authorised agent requests summary consumption information.

If a retailer receives a request for consumption data from a consumer or a consumer's authorised agent, the retailer must send the consumption information in a data file formatted in accordance with this EIEP 13B. Refer clauses 11.32A – 11.32F of the Code.

Business requirements

1. Retailers must give consumption information to consumers (clause 11.32F(2)(b)) in the format specified in this document.
2. Consumers may choose whether to receive an output file as a CSV-formatted electronic file by email, or as printed output in a table format or similar by post.
3. If a request for EIEP 13B is received from a consumer's authorised agent via the EIEP transfer hub, the response will be sent via the EIEP transfer hub. However nothing prevents an agent requesting EIEP 13B via a valid email address and receiving a response to that valid email address.
4. Electricity conveyed must be expressed as compensation-corrected volumes for a date and time period that is defined by a start date/time value and an end date/time value.
5. The time period used for EIEP 13B formatted information must match the billed consumption information that the retailer has supplied to the consumer.
6. Any read period comprising date and time can be accommodated using this format, whether monthly, weekly, daily, or certain parts of a day:
   (a) If the interval of a consumption record is less than one whole day, the Time part of the

Business requirements

DateTime formatted value must reflect the appropriate hours, minutes and seconds of the record (eg a half hour trading period record could have a start date/time of “01/03/2016 00:30:01” and an end date/time of “01/03/2016 01:00:00”).

(b) If the interval of a consumption record is equal to or longer than one whole day, the Time part of the DateTime format is to be coded as 00:00:01 (eg a consumption record for the period 1 May 2016 to 5 June 2016 (inclusive) would have a start date/time of “01/05/2016 00:00:01” and an end date/time of “06/06/2016 00:00:00” or “05/06/2016 24:00:00”).

7. A retailer must only use codes that are:
   (i) stipulated in this document; or
   (ii) approved and published by the Authority; or
   (iii) specified in the registry and reconciliation functional specifications.
8. Language used in the file must be consistent with the terminology used in the Glossary of Standard Terms published by the Authority.
9. The file must contain all mandatory information. Failure to provide the required information will result in the file being deemed as incomplete.
10. Information must be provided using with the following status codes:
    O Optional
    M Mandatory where applicable
    C Conditional - Mandatory if available and required by recipient, otherwise optional.
11. The consumption information to be provided in an EIEP 13B formatted file is the energy volume imported or exported at a meter register on the requested ICP within a specified time period, after any ‘multiplier’ or compensation factor has been applied., in units of
    (i) kilowatt hours (kWh) for active energy; and
    (ii) kilovolt ampere reactive hours (kVArh) for reactive energy
12. Unmetered load is to be calculated as the volume of unmetered electricity applicable for the period between invoicing dates.
13. The amount of historical consumption information to be provided by the retailer in response to a consumer request is specified in clause 11.32A of the Code.
14. If the retailer holds reactive energy volumes, the retailer must provide them if the consumer (or their agent) specifically requests this.
15. If the retailer becomes aware of a format error in a transmitted file, or the file is incomplete or otherwise inaccurate, the retailer must advise the consumer as soon as practicable after becoming aware of the issue. This obligation is contained in clause 11.2 of the Code.
16. Where previously transmitted information is to be corrected, the retailer must provide a complete replacement file.
17. The file must be named in accordance with the registry functional specification EI-030.
18. All DateTime formatted data must specify NZDT (New Zealand Daylight Savings time) values, adjusted in accordance with clause 15.36 of the Code.

General requirements

1. If there are any conflicts between this document and the Code, the Code will take precedence.
2. For clarity, it is the responsibility of retailers to:
   (a) comply with the Privacy Act
   (b) maintain business confidentiality when exchanging consumer details

Business requirements
(c) ensure that agent arrangements are recorded.

Data inputs
Information from a retailer's information system.

Event data	Format	Retailer to Consumer: Mandatory/ Optional/Conditional	Validation rules
Header record type	Char 3	M	HDR – indicates the row is a header record type
File type	Char 7	M	Must be ICPSUMM.
Sender	Char 20	M	Name of sending party. Authority-approved participant and non-participant identifiers must be used.
Recipient Participant identifier	Char 4	M	Valid recipient non-participant identifier. In the case of a a) consumer this should be CUST b) consumers agent should be the Authority-approved non-participant identifier
Report run date	DD/MM/YYYY	M	Date the report is run
Unique request identifier	Char ~~15~~36	M	If the unique request identifier is provided in the requesting EIEP 13C it must be provided in EIEP 13B, otherwise BLANK
Response code	Char 3	M	Indicates that the request for the specific ICP identifier is either accepted or rejected. The following codes must be used: 000 – Request accepted, data follows 001 – Request rejected, no ICP or address or customer match 002 – Request rejected, no ICP record 003 – Request rejected, no customer record 004 – Request rejected, no agent authority If Response code is 000, all of the following fields are required per the field specifications If Response code is 001, 002, 003 or 004, the following DET records only require the ICP to be populated.
Number of detail records	Num 8	M	Total number of DET records in report

Event data	Format	Retailer to Consumer: Mandatory/ Optional/Conditional	Validation rules
Report period start date	DD/MM/YYYY	M	Report run start date (inclusive)
Report period end date	DD/MM/YYYY	M	Report run end date (inclusive)
NZDT adjustment	Char 4	C	Refer to clause 15.36 of Part 15 of the Code. If information is NZDT adjusted, the field may be left BLANK, otherwise if it is not adjusted, NZST must be used

Event data	Format	Retailer to Consumer: Mandatory/ Optional/Conditional	Validation rules
Title column 1	Char 3	M	DES – indicates the row is field descriptions, to align with columns in detail records
Title column 2	Char 30	M	Must be “ICP identifier”
Title column 3	Char 30	M	Must be “Metering component serial number”
Title column 4	Char 30	M	Must be “Energy flow direction”
Title column 5	Char 30	M	Must be “Register content code”
Title column 6	Char 30	M	Must be “Period of availability”
Title column 7	Char 30	M	Must be “Read period start date and time”
Title column 8	Char 30	M	Must be “Read period end date and time”
Title column 9	Char 30	M	Must be “Read status”
Title column 10	Char 30	M	Must be “Tariff name”
Title column 11	Char 30	M	Must be “Active energy kWh”
Title column 12	Char 30	M	Must be “Reactive energy kVArh”

Event data	Format	Retailer to Consumer: Mandatory/ Optional/ Conditional	Validation rules
Detail record type	Char 3	M	DET – indicates the row is a detail record of consumption information.

Event data	Format	Retailer to Consumer: Mandatory/ Optional/ Conditional	Validation rules
ICP identifier	Char 15	M	ICP identifier means a unique identifier for an ICP created by a distributor in accordance with clause 1 of Schedule 11.1
Metering component serial number	Char 30	C	Mandatory for a metering component. Identifies the metering component for installations that have multiple metering components. Includes unmetered load where there is a metering component and unmetered load on the same register content code. For unmetered load “UNM” must be used
Energy flow direction	Char 15	C	An identifier of whether the channel records the import (injection from the ICP into the Network) (“I”), or the export (extraction from the Network to the ICP) (“X”). If “X” format must show words = “Consumption” If “I” format must show words = “Generation” Mandatory unless response code is 001, 002, 003 or 004
Register content code	Char 6	C	Identifies the register content code that information is provided for. Refer to SD-020 of the registry functional specification for a list of register content codes Mandatory unless response code is 001, 002, 003 or 004
Period of availability	Char 6	C	Identifies the period of availability that applies to the register content code Mandatory unless response code is 001, 002, 003 or 004
Read period start date and time	DD/MM/YYYY HH:MM:SS	C	Date and time of start of read period. Mandatory unless response code is 001, 002, 003 or 004
Read period end date and time	DD/MM/YYYY HH:MM:SS	C	Date and time of end of read period Mandatory unless response code is 001, 002, 003 or 004

Event data	Format	Retailer to Consumer: Mandatory/ Optional/ Conditional	Validation rules
Read status	Char 2	C	RD = actual ES = estimated Mandatory unless response code is 001, 002, 003 or 004
Tariff name	Char 50	C	Name of tariff rate, e.g. “Anytime” or “Controlled” etc. To be assigned by the retailer to align with terminology it has used in its price schedule. Mandatory unless response code is 001, 002, 003 or 004
Unit quantity active energy volume	Num 12.2	C	Volume information for injection or extraction in kWh Mandatory unless response code is 001, 002, 003 or 004
Unit quantity reactive energy volume	Num 12.2	C	Volume information for extraction in kVArh. Mandatory if requested and the information is available to the retailer, otherwise optional. BLANK if information is not provided

Protocol specifications

1. The information is to be a comma delimited text file (CSV). Commas are therefore prohibited within fields.
2. Each formatted file must consist of one or more records, with each record being a single line of text as defined in this format specification document. Records must be delimited with one of the following:
    (i) a carriage return character and a line feed character combination (ASCII characters 13 and 10) commonly used in the Microsoft Windows operating system
    (ii) a line feed character (ASCII character 10) commonly used in the Unix operating system, or
    (iii) a carriage return character (ASCII character 13) commonly used in the Apple OS X operating system.
3. Data fields within files must be defined using the attributes in the table following these specifications.
4. Matching of file names, code list values, etc., must be case insensitive.
5. Any number of ICPs, register content codes and date ranges may be included in a single file.
6. Each data file must contain only one header line.
7. The first record of a file must contain “Header” information (HDR) followed by one heading description row (DES) followed by zero or more detail rows (DET).

Protocol specifications
8. File naming process must be in accordance with the registry functional specification EI-030

Data outputs
1. File delivered electronically to a consumer or to the consumer's agent

1 Table of codes used in EIEP 13B

1.1 Table 1 List of attributes to define data fields used in EIEP 13B

Logical format	Data type	Rules	Example
INT (n)	Integer	ASCII representation of an integer number (i.e. no decimals), no leading zeros, no spaces, a leading "-"if negative (no sign if positive), with 1 to n digits. Numbers only: ASCII characters 48 to 57, and 45 where applicable.	INT (4) 12 -1234
NUM (n.d)	Decimal	ASCII representation of a decimal number (ie a rational number), no spaces, a leading "-" if negative (no sign if positive), with up n digits including up to (n minus d) digits to the left of the decimal place, and up to d digits to the right of the decimal place. For integers, the decimal point is not required. A decimal point on its own must not be used to represent zero (use "0") Trailing zeros are optional. No leading zeros other than when the number starts with "0." Numbers only: ASCII characters 48 to 57, and 45/46 where applicable.	NUM (6.2) 123.45 1234.0 -12.32 NUM (6.3) -0.123 23.987 987.000 8
CHAR (n)	Text	Up to n characters (ASCII characters 32 to 43 and 45 to 126 only). As commas (ASCII character 44) are used as field separators, they must not be used within the field data (it is recommended that any commas found in source data be changed to a semi-colon (ASCII character 59) when files are created. Fields must not contain any leading or trailing spaces.	The quick brown fox

Logical format	Data type	Rules	Example
DATE	Date	ASCII format DD/MM/YYYY Year represented as: — YYYY for century and year Month represented as: — MM to display leading zero Day represented as — DD to display leading zero ASCII format for separator {forward slash (47)}	16/02/2005
DATETIME	DateTime	ASCII format DD/MM/YYYY HH:MM:SS Year represented as: — YYYY for century and year Month represented as: — MM to display leading zero Day represented as — DD to display leading zero Hour represented as — HH to display leading zero Minute represented as — MM to display leading zero Second represented as — SS to display leading zero ASCII format for separators {forward slash (47), colon (58), space (32)}	16/03/2015 09:30 (note the ASCII 'space' separator between YYYY and HH)
BLANK		Field contains no data (appears as two sequential commas (,,) in the file)	,,

1.2 Table 2 ASCII character set for use within fields of EIEP 13B

Character	ASCII
32	Space
33	!
34	"
35	#
36	$
37	%
38	&
39	'
40	(
41	)
42	*
43	+
45	-
46	.
47	/
48	0
49	1
50	2
51	3
52	4
53	5
54	6
55	7
56	8
57	9
58	:
59	;
60	<
61	=
62	>
63	?

Character	ASCII
64	@
65	A
66	B
67	C
68	D
69	E
70	F
71	G
72	H
73	I
74	J
75	K
76	L
77	M
78	N
79	O
80	P
81	Q
82	R
83	S
84	T
85	U
86	V
87	W
88	X
89	Y
90	Z
91	[
92	\
93	]
94	^
95	_
96	`

Character	ASCII
97	a
98	b
99	c
100	d
101	e
102	f
103	g
104	h
105	i
106	j
107	k
108	l
109	m
110	n
111	o
112	p
113	q
114	r
115	s
116	t
117	u
118	v
119	w
120	x
121	y
122	z
123	{
124	|
125	}
126	~

Glossary of abbreviations and terms

Act	Electricity Industry Act 2010
Authority	Electricity Authority
Code	Electricity Industry Participation Code 2010
Consumer	means a person who is supplied electricity for consumption, and includes a distributor, a retailer or a generator if the distributor, or the retailer or the generator is supplied with electricity for its own consumption
CSV	Comma separated values
EIEP	Electricity Information Exchange Protocol
ICP	Installation Control Point
kVArh	Kilovolt-ampere reactive hour
kWh	Kilowatt hour

Sample of electronic output file viewed as a CSV text file

HDR,ICPSUMM,EANZ,CUST,20/03/2014,Ron001,000,18,20/03/2014,20/03/2015,NZDT

DES,ICP identifier,Metering component serial number,Energy flow direction,Register content code,Period of availability,Read period start date and time,Read period end date and time,Read status,Tariff name,Active energy kWh,Reactive energy kVArh

DET,0000021314CPABC,213515698,Consumption,UN,24,25/03/2014 00:00,20/05/2014 00:00,RD,Anytime,350,35

DET,0000021314CPABC,213515698,Consumption,CN,17,25/03/2014 00:00,20/05/2014 00:00,RD,Controlled,450,45

DET,0000021314CPABC,213515698,Generation,EG,24,25/03/2014 00:00,20/05/2014 00:00,RD,Embedded generation,75,0

DET,0000021314CPABC,213515698,Consumption,UN,24,20/05/2014 00:00,18/07/2014 00:00,RD,Anytime,350,35

DET,0000021314CPABC,213515698,Consumption,CN,17,20/05/2014 00:00,18/07/2014 00:00,RD,Controlled,450,45

DET,0000021314CPABC,213515698,Generation,EG,24,20/05/2014 00:00,18/07/2014 00:00,RD,Embedded generation,75,0

DET,0000021314CPABC,213515698,Consumption,UN,24,18/07/2014 00:00,22/09/2014 00:00,RD,Anytime,350,35

DET,0000021314CPABC,213515698,Consumption,CN,17,18/07/2014 00:00,22/09/2014 00:00,RD,Controlled,450,45

DET,0000021314CPABC,213515698,Generation,EG,24,18/07/2014 00:00,22/09/2014 00:00,RD,Embedded generation,75,0

DET,0000021314CPABC,213515698,Consumption,UN,24,22/09/2014 00:00,25/11/2014 00:00,RD,Anytime,350,35

DET,0000021314CPABC,213515698,Consumption,CN,17,22/09/2014 00:00,25/11/2014 00:00,RD,Controlled,450,45

DET,0000021314CPABC,213515698,Generation,EG,24,22/09/2014 00:00,25/11/2014 00:00,RD,Embedded generation,75,0

DET,0000021314CPABC,213515698,Consumption,UN,24,25/11/2014 00:00,20/01/2015 00:00,RD,Anytime,350,35

DET,0000021314CPABC,213515698,Consumption,CN,17,25/11/2014 00:00,20/01/2015 00:00,RD,Controlled,450,45

DET,0000021314CPABC,213515698,Generation,EG,24,25/11/2014 00:00,20/01/2015 00:00,RD,Embedded generation,75,0

DET,0000021314CPABC,213515698,Consumption,UN,24,20/01/2015 00:00,17/03/2015 00:00,ES,Anytime,350,35

DET,0000021314CPABC,213515698,Consumption,CN,17,20/01/2015 00:00,17/03/2015 00:00,ES,Controlled,450,45

DET,0000021314CPABC,213515698,Generation,EG,24,20/01/2015 00:00,17/03/2015 00:00,ES,Embedded generation,75,0

Sample of electronic output file viewed as an Excel file (with a little formatting), or a PDF printed page

HDR	ICPSUMM	EANZ	Cust	20/03/2014	Ron001	000	18	20/03/2014	20/03/2015	NZDT				
DES	ICP Identifier	Metering component serial number	Energy flow direction	Register content code	Period of availability	Read period start date and time	Read period end date and time	Read status	Tariff name	Active energy kWh	Reactive energy kVArh			
DET	0000021314CPABC	213515698	Consumption	UN	24	25/03/2014 00:00	20/05/2014 00:00	RD	Anytime	350	35			
DET	0000021314CPABC	213515698	Consumption	CN	17	25/03/2014 00:00	20/05/2014 00:00	RD	Controlled	450	45			
DET	0000021314CPABC	213515698	Generation	EG	24	25/03/2014 00:00	20/05/2014 00:00	RD	Embedded generation	75	0			
DET	0000021314CPABC	213515698	Consumption	UN	24	20/05/2014 00:00	18/07/2014 00:00	RD	Anytime	350	35			
DET	0000021314CPABC	213515698	Consumption	CN	17	20/05/2014 00:00	18/07/2014 00:00	RD	Controlled	450	45			
DET	0000021314CPABC	213515698	Generation	EG	24	20/05/2014 00:00	18/07/2014 00:00	RD	Embedded generation	75	0			
DET	0000021314CPABC	213515698	Consumption	UN	24	18/07/2014 00:00	22/09/2014 00:00	RD	Anytime	350	35			
DET	0000021314CPABC	213515698	Consumption	CN	17	18/07/2014 00:00	22/09/2014 00:00	RD	Controlled	450	45			
DET	0000021314CPABC	213515698	Generation	EG	24	18/07/2014 00:00	22/09/2014 00:00	RD	Embedded generation	75	0			
DET	0000021314CPABC	213515698	Consumption	UN	24	22/09/2014 00:00	25/11/2014 00:00	RD	Anytime	350	35			
DET	0000021314CPABC	213515698	Consumption	CN	17	22/09/2014 00:00	25/11/2014 00:00	RD	Controlled	450	45			
DET	0000021314CPABC	213515698	Generation	EG	24	22/09/2014 00:00	25/11/2014 00:00	RD	Embedded generation	75	0			
DET	0000021314CPABC	213515698	Consumption	UN	24	25/11/2014 00:00	20/01/2015 00:00	RD	Anytime	350	35			
DET	0000021314CPABC	213515698	Consumption	CN	17	25/11/2014 00:00	20/01/2015 00:00	RD	Controlled	450	45			
DET	0000021314CPABC	213515698	Generation	EG	24	25/11/2014 00:00	20/01/2015 00:00	RD	Embedded generation	75	0			
DET	0000021314CPABC	213515698	Consumption	UN	24	20/01/2015 00:00	17/03/2015 00:00	ES	Anytime	350	35			
DET	0000021314CPABC	213515698	Consumption	CN	17	20/01/2015 00:00	17/03/2015 00:00	ES	Controlled	450	45			
DET	0000021314CPABC	213515698	Generation	EG	24	20/01/2015 00:00	17/03/2015 00:00	ES	Embedded generation	75	0			

EIEP 13C: Request file for EIEP 13A and EIEP 13B

Title:	**EIEP 13C: Request file for EIEP 13A and EIEP 13B**
Version:	1.0
Application:	This protocol allows a consumer's authorised agent to request consumption information on behalf of the consumer. The response sent by the retailer will be formatted in accordance with EIEP 13A or EIEP 13B and transmitted electronically.
Participants:	Retailers
Non-participants:	Authorised consumer agents
Code reference:	Clause 11.32A – 11.32F (effective from 1 February 2016)
Dependencies:	The Code and procedures document also contains requirements relevant to the information to be provided in files that are created in accordance with this format specification.

Description of when this protocol applies
This protocol allows a consumer's authorised agent to request consumption information on behalf of the consumer. The response sent by the retailer will be formatted in accordance with EIEP 13A or EIEP 13B and transmitted electronically.

Business requirements
1. The relevant Code provisions are set out in clauses 11.32A – 11.32F. The format in which information must be given to consumers (clause 11.32F(2)(b)) is the format specified in this document. 2. Information provided in the file must be consistent with the terminology used in the Glossary of Standard Terms published by the Authority. 3. The file must be named in accordance with the registry functional specification EI-030.

General requirements
1. If there are any conflicts between this document and the Code, the Code will take precedence. 2. For clarity, it is the responsibility of retailers and the consumer's authorised agents to: (a) comply with the Privacy Act (b) maintain business confidentiality when exchanging consumer details

General requirements
(c) ensure that agent arrangements are recorded. 3. The receipt of a valid EIEP 13C request from an authorised agent should trigger the release of an EIEP 13A or EIEP 13B formatted file in response.

Data inputs
Electronic request form

Event data	Format	Retailer to Consumer: Mandatory/ Optional/Conditional	Validation rules
Header record type	Char 3	M	HDR – indicates the row is a header record type
File type	Char 7	M	Must be REQCONS.
Sender	Char 20	M	Name of sending party. Authority-approved participant and non-participant identifiers must be used.
Recipient Participant identifier	Char 4	M	Valid recipient participant identifier of the retailer the request is made to.
Report run date	DD/MM/YYYY	M	Date the report is run
Unique request identifier	Char 36~~15~~	M	Number that uniquely identifies the file
Number of detail records	Num 8	M	Total number of DET records in report

Event data	Format	Consumer or consumers agent to retailer: Mandatory/ Optional/ Conditional	Validation rules
Detail record type	Char 3	M	DET – indicates the row is a detail record of consumption information.
EIEP format requested	Char 7	M	Must be either “EIEP13A” or “EIEP13B” depending on agent’s requirements. If both are required for a single customer, two DET rows must be included.

Event data	Format	Consumer or consumers agent to retailer: Mandatory/ Optional/ Conditional	Validation rules
EIEP delivery method	Char 7	M	EIEP13A and/or EIEP 13B can be delivered via either email or the registry data hub • "EMAIL" indicates a valid email address must be provided • "DATAH" indicates that a valid participant or non-participant identifier must be provided that has access to the registry data hub
Consumer Authorisation code	Char 20	C	A unique character code that links the consumer's authorisation of the data to the data file if an authorisation code has been previously agreed with the retailer Mandatory where a code has been agreed otherwise BLANK
Consumer no	Char 15	M	Trader's consumer number. Defined as the retailer's unique ID that links the premises and the customer. If not available then use null.
Customer name	Char 100	M	Legal name or the name of the customer that is shown on the customers invoice. Must be the responsible person recorded by the retailer against the ICP for a period within the last 2 years Multiple names to be concatenated into one field
ICP identifier	Char 15	M	ICP identifier means a unique identifier for an ICP created by a distributor in accordance with clause 1 of Schedule 11.1
Email address	Char 50	M	Mandatory if "EMAIL" entered in EIEP delivery method otherwise BLANK.
Install address unit	Char 25	M	Sub dwelling number; Level of sub dwelling that is shown on the customers invoice. Can be BLANK.
Install address number	Char 6	M	Number issued by government agency or local government authority that identifies a point or location on a street for postal purposes that is shown on the customers invoice. Can be BLANK.

Event data	Format	Consumer or consumers agent to retailer: Mandatory/ Optional/ Conditional	Validation rules
Install address street	Char 30	M	Official road name issued by government agency or local government authority that is shown on the customers invoice. Can be BLANK.
Install address suburb	Char 30	M	A bounded locality within a city, town or shire principally of urban character that is shown on the customers invoice. Can be BLANK.
Install address PO Box/RD	Char 30	M	Number assigned a postal delivery box or rural delivery number that is shown on the customers invoice. Can be BLANK.
Install address town	Char 30	M	An officially recognised and named population centre, defined within a geographic boundary that is shown on the customers invoice. Can be BLANK.
Install address postcode	Char 30	M	The post code assigned by NZ post (zip code if outside NZ) that is shown on the customers invoice. Can be BLANK.
Install address country	Char 30	M	The country for postal information that is shown on the customers invoice. Can be BLANK.

Protocol specifications

1 The information must be provided as a comma-delimited text file (CSV). Commas are therefore prohibited within fields.

2 Each formatted file must consist of one or more records, with each record being a single line of text as defined in this format specification document. Records must be delimited with one of the following:

(a) a carriage return character and a line feed character combination (ASCII characters 13 and 10) commonly used in the Microsoft Windows operating system

(b) a line feed character (ASCII character 10) commonly used in the Unix operating system, or

(c) a carriage return character (ASCII character 13) commonly used in the Apple OS X operating system.

3 Data fields within files must be defined using the attributes in the table following these specifications.

4 Matching of file names, code list values, etc, must be case insensitive.

5 Any number of ICPs, register content codes and date range may be included in a single file.

6 Each data file must contain only one header line.

Protocol specifications
7 The first record of a file must contain “Header” information followed by zero or more detail lines. 8 File naming process shall be in accordance with the registry functional specification EI-030

Data outputs
1. File delivered electronically to a retailer from a consumer or the consumer’s agent

1 Table of codes used in EIEP 13C

1.1 Table 1 List of attributes to define data fields used in EIEP 13C

Logical format	Data type	Rules	Example
INT (n)	Integer	ASCII representation of an integer number (ie no decimals), no leading zeros, no spaces, a leading “-“ if negative (no sign if positive), with 1 to n digits. Numbers only: ASCII characters 48 to 57, and 45 where applicable.	INT (4) 12 -1234
NUM (n.d)	Decimal	ASCII representation of a decimal number (ie a rational number), no spaces, a leading “-“ if negative (no sign if positive), with up n digits including up to (n minus d) digits to the left of the decimal place, and up to d digits to the right of the decimal place. For integers, the decimal point is not required. A decimal point on its own must not be used to represent zero (use “0”) Trailing zeros are optional. No leading zeros other than when the number starts with “0.” Numbers only: ASCII characters 48 to 57, and 45/46 where applicable.	NUM (6.2) 123.45 1234.0 -12.32 NUM (6.3) -0.123 23.987 987.000 8

Logical format	Data type	Rules	Example
CHAR (n)	Text	Up to n characters (ASCII characters 32 to 43 and 45 to 126 only). As commas (ASCII character 44) are used as field separators, they must not be used within the field data (it is recommended that any commas found in source data be changed to a semi-colon (ASCII character 59) when files are created. Fields must not contain any leading or trailing spaces.	The quick brown fox
DATE	Date	ASCII format DD/MM/YYYY Year represented as: — YYYY for century and year Month represented as: — MM to display leading zero Day represented as — DD to display leading zero ASCII format for separator {forward slash (47)}	16/02/2005
BLANK		Field contains no data (appears as two sequential commas (,,) in the file)	,,

1.2 Table 2 ASCII character set for use within fields of EIEP 13C

Character	ASCII
32	Space
33	!
34	"
35	#
36	$
37	%
38	&
39	'
40	(
41	)
42	*
43	+
45	-
46	.
47	/
48	0
49	1
50	2
51	3
52	4
53	5
54	6
55	7
56	8
57	9
58	:
59	;
60	<
61	=
62	>
63	?

Character	ASCII
64	@
65	A
66	B
67	C
68	D
69	E
70	F
71	G
72	H
73	I
74	J
75	K
76	L
77	M
78	N
79	O
80	P
81	Q
82	R
83	S
84	T
85	U
86	V
87	W
88	X
89	Y
90	Z
91	[
92	\
93	]
94	^
95	_
96	`

Character	ASCII
97	a
98	b
99	c
100	d
101	e
102	f
103	g
104	h
105	i
106	j
107	k
108	l
109	m
110	n
111	o
112	p
113	q
114	r
115	s
116	t
117	u
118	v
119	w
120	x
121	y
122	z
123	{
124	|
125	}
126	~

Glossary of abbreviations and terms

Act	Electricity Industry Act 2010
Authority	Electricity Authority
Consumer	means a person who is supplied electricity for consumption, and includes a distributor, a retailer or a generator if the distributor, or the retailer or the generator is supplied with electricity for its own consumption
CSV	Comma separated values
EIEP	Electricity Information Exchange Protocol
ICP	Installation Control Point
kWh	Kilowatt hour

Appendix C Format for submissions

Submitter	

Question		Comment
Q1.	Do you agree the issue identified by the Authority is worthy of attention?	
Q2.	Do you agree that three months is adequate to implement any system changes required? If not, what timeframe would you consider adequate?	
Q3.	Do you agree with the objectives and benefits of the proposed amendment? If not, why not?	
Q4.	What would the cost be to your organisation to make the proposed amendments?	
Q5.	Do you agree the benefits of the proposed amendment outweigh its costs?	

Glossary of abbreviations and terms

Act	Electricity Industry Act 2010
Authority	Electricity Authority
Code	Electricity Industry Participation Code 2010
EIEP	Electricity Industry Exchange Protocol
EIEP13A	One of two file format used by retailers when providing consumption information to consumers
EIEP13B	One of two file format used by retailers when providing consumption information to consumers
EIEP13C	File format that can be used by consumers or their authorised agents to request consumption information from retailers
EIEP5A	EIEP for planned service interruptions
SDFG	Standing Data Formats Group