Electricity Information Exchange Protocols (EIEP)

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

Regulated

Version 1.4

Effective from: 26 July 2022

Version control

Version	Date amended	Comments
1.2	1 February 2016	
1.3	19 December 2019	Updated to reflect changes as per the ACCES project, including: - mandatory use of the EIE system - a unique request identifier must be provided - two new response codes (005 and 006).
1.4	26 April 2022	Increase the ‘unique request identifier’ field from 15 Char to 36 Char

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1 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:	1.4
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
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 Authority prescribed EIE system, the response must be sent via the prescribed EIE system.
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 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

Business requirements	
	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) 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.

General requirements
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 36	M	The unique request identifier is provided in the requesting EIEP 13C.
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 005 – Request rejected, agent authority requested 006 – Request rejected, incorrect format 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
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

Event data	Format	Retailer to Consumer: Mandatory/ Optional/ Conditional	Validation rules
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 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

2 Table of codes used in EIEP 13A

2.1 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
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 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)
BLANK		Field contains no data (appears in the file as two sequential commas (,,))	,,

2.2 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.