EIEP 13B: Summary consumption information

Title:	**EIEP 13B: Summary consumption information**
Version:	1.~~43~~
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	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 Number of detail records must be 0 (zero) and all of the following values in the DES row are to be set to NULL.~~the following DET records only require the ICP to be populated.

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

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.
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 3015	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	MC	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	MC	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	MC	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	MC	Date and time of start 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 period end date and time	DD/MM/YYYY HH:MM:SS	~~M~~C	Date and time of end of read period Mandatory unless response code is 001, 002, 003 or 004
Read status	Char 2	~~M~~C	RD = actual ES = estimated Mandatory unless response code is 001, 002, 003 or 004
Tariff name	Char 50	~~M~~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	~~M~~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.

Protocol specifications
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). 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