

24 JUNE 2015

# ELECTRICITY INFORMATION EXCHANGE PROTOCOLS

DISTRIBUTOR WORKSHOP

COMPETITION • RELIABILITY • EFFICIENCY



# ELECTRICITY INFORMATION EXCHANGE PROTOCOLS (EIEPS)

- The purpose of the Electricity Information Exchange Protocols (EIEPs) is to provide a set of standardised formats that distributors and traders use when exchanging operational business information electronically
- The EIEPs have been developed and revised over a period of many years
- The scale of the potential efficiency benefits is significant, owing to the very large number of bilateral information exchange transactions that routinely occur between distributors and the traders that operate across their networks
- Standing Data Formats Group advises the Authority on changes to existing EIEPs and new EIEPs

# ELECTRICITY INFORMATION EXCHANGE PROTOCOLS (EIEPS)

## Introduction and use

- A collection of standardised formats to facilitate transfer of information between registry participants
- Files can be transmitted by any means but the registry EIEP hub transmits them automatically and securely
- <https://www.ea.govt.nz/operations/retail/eiep/>
- EIEPs 1, 2 and 3 have been regulated, and came into effect on 1 November 2014
- EIEP 12 is regulated and came into effect on 1 December 2011
- EIEPs 13A, 13B, and 13C will be regulated and will come into effect on 1 February 2016

# SOME BUSINESS RULES

- Regulated formats must be used unless both the trader and the distributor opt out in their UOSA
- Once opted out, always opted out unless both the distributor and the trader agree
- Some EIEP formats are regulated, billing methodology is not, and should be agreed between the distributor and the trader
- If a distributor's tariff schedule is in time blocked periods (ie greater than a trading period), trader information should be delivered time blocked in EIEP1 unless the distributor has agreed otherwise with a trader
- All information delivered in EIEPs should be daylight saving adjusted

# EIEPS

EIEP1	Detail Consumption Information <ul style="list-style-type: none"> <li>• As Billed</li> <li>• Incremental Normalised</li> <li>• Replacement Normalised</li> </ul>
EIEP2	Aggregate Consumption Information Reconciled (for GXP based charging).
EIEP3	Half Hour Metering Information
EIEP4	Customer Information
EIEP5A	Planned Service interruptions: <ul style="list-style-type: none"> <li>• Singular</li> <li>• Multiple</li> </ul>
EIEP5B	Unplanned Service interruptions
EIEP6A	Fault Initiation file: <ul style="list-style-type: none"> <li>• Initiation</li> <li>• Status update and closure</li> </ul>
EIEP6B	Faults and Service Request Initiation: <ul style="list-style-type: none"> <li>• Initiation</li> <li>• Status update and closure</li> </ul>
EIEP7	General Installation Status Change
EIEP8	Notification of Network Price Category and Tariff Change
EIEP9	Customer Location Address Change Notification
EIEP11	New Connections: <ul style="list-style-type: none"> <li>• Request for a new ICP</li> <li>• Provision of a new ICP</li> <li>• Change of ICP information</li> <li>• Provision of metering information by either party</li> </ul>
EIEP12	Detailed Pricing Information Notification of pricing changes
EIEP13A	Detailed consumption information
EIEP13B	Billing summary information
EIEP13C	Request for an EIEP13A or EIEP13B

# EIEPS

## EIEIP1

HDR	ICPMMRMCIPMMNMCIP	10	TRDR	TRDR	DIST	8/01/20	4:04:5	40455	8	1/10/20	31/10/2012	201210	E	I		
RECORD TYPE	ICP	START DATE	END DATE	NETWORK PRICE CAT DESC	UNIT OF MEASURE	UNIT QUANTITY	METER READ STATUS	GXP	PARTICIPANT IDENTIFIER	SPARE	NETWORK TARIFF CODE	NETWORK TARIFF RATE	FIXED VARIABLE	CHARGEABLE DAYS	NETWORK CHARGE	
DET	0973498743DT297	1/10/2012	31/10/2012			31	ES	EKT0661	DIST		DT001-FIXD	0.18	F		31	5.58
DET	0973498743DT297	1/10/2012	31/10/2012		KWH	212	ES	EKT0661	DIST		DT001-AICO	0.102	V			21.62
DET	0000847534DTB30	18/10/2012	31/10/2012			14	RD	DGA0221	DIST		DT002-FIXD	0.18	F		14	2.52
DET	0000847534DTB30	18/10/2012	31/10/2012		KVA,KM	264	RD	DGA0221	DIST		DT002-CAPY	0.05	F		14	13.2
DET	0000847534DTB30	18/10/2012	31/10/2012		KWH	439	RD	DGA0221	DIST		DT002-CTRL	0.089	V			39.07
DET	0000847534DTB30	18/10/2012	31/10/2012		KWH	892	RD	DGA0221	DIST		DT002-24UC	0.156	V			139.152
DET	1000004384DT1CF	1/10/2012	31/10/2012			31	RD	EKT0661	DIST		DT001-FIXD	0.18	F		31	5.58
DET	1000004384DT1CF	1/10/2012	31/10/2012		KWH	163	RD	EKT0661	DIST		DT001-AICO	0.102	V		31	16.63

REGISTER CONTENT CODE	PERIOD OF AVAILAB	REPORT MONTH	CUSTOMER NO	CONSUMER NO	INVOICE DATE	INVOICE NO	ENERGY FLOW DIRECTO
		201210	29058779	894563212			
N	19	201210	29058779	894563212			X
		201210	24058193	630021548			
		201210	24058193	630021548			
CN	19	201210	24058193	630021548			X
UN	24	201210	24058193	630021548			X
		201210	17008953	220045683			
N	19	201210	17008953	220045683			X



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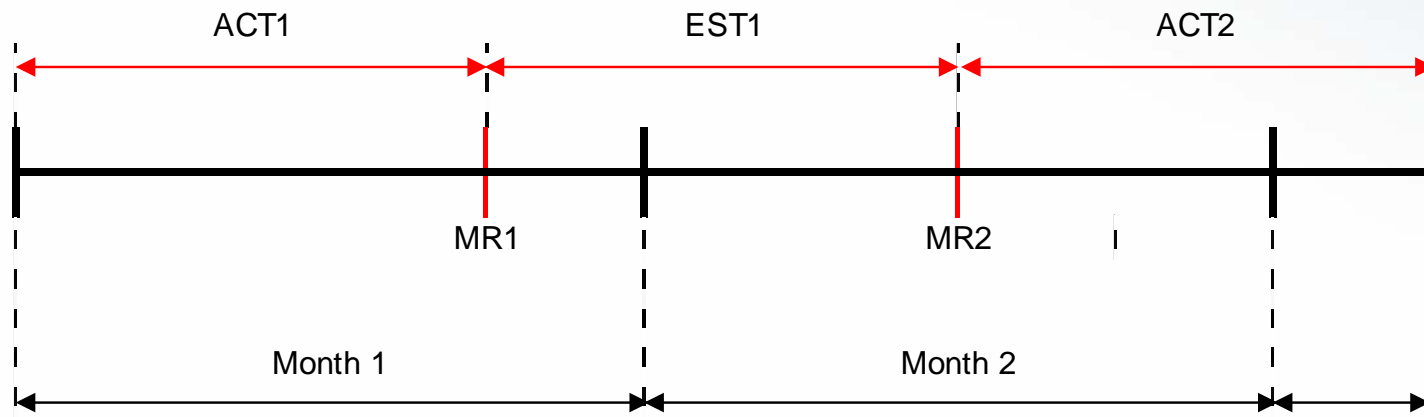
# BILLING METHODOLOGIES

- EIEPs include four billing methods as follows:
  - as-billed
  - incremental normalised
  - replacement normalised
  - incremental replacement normalised



# BILLING METHODOLOGY

## AS-BILLED



- A methodology that provides consumption and line charges that reflect exactly how the end-use customer invoice values were calculated for line charges

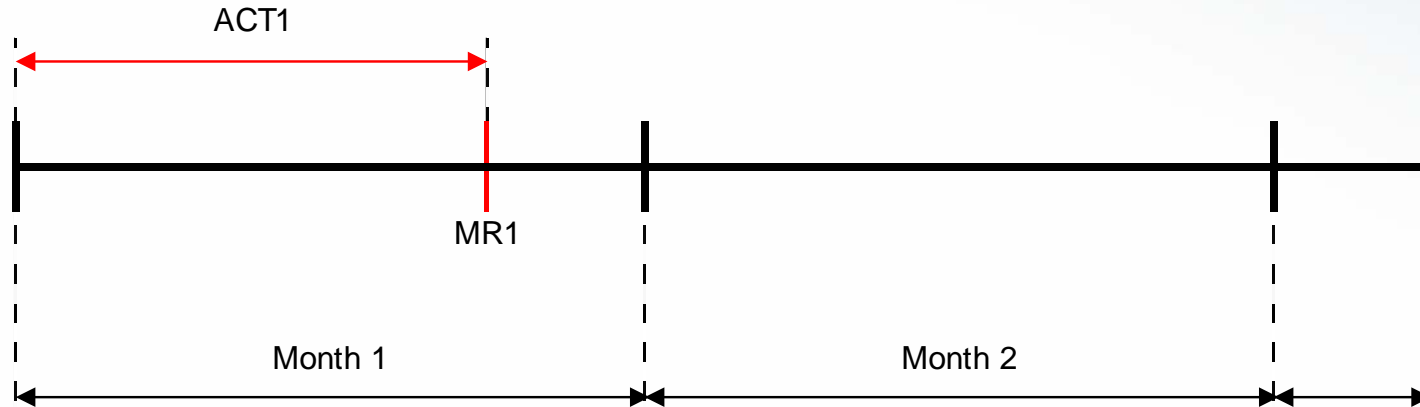
# BILLING METHODOLOGY

## AS-BILLED

- Attributes
  - network cash flow follows retailers invoicing process
  - as-billed volumes must include actual or estimated meter reads
  - fixed and variable charges by network tariff code are applied as per the network tariffs
  - unbilled ICPs with an 'Active' registry status for any part of the report period are represented by a single detail record per ICP, with UB (unbilled) as the 'meter read status'. For these ICPs, all other mandatory fields must be left blank
  - where an ICP has been vacant but has an 'Active' status on the registry, the 'start date' reported in an as billed file must be the date of the new customer contract
  - all under or over-estimates be corrected in future reporting periods by reflecting the corresponding correction that is applied to the customer's bill

# BILLING METHODOLOGY

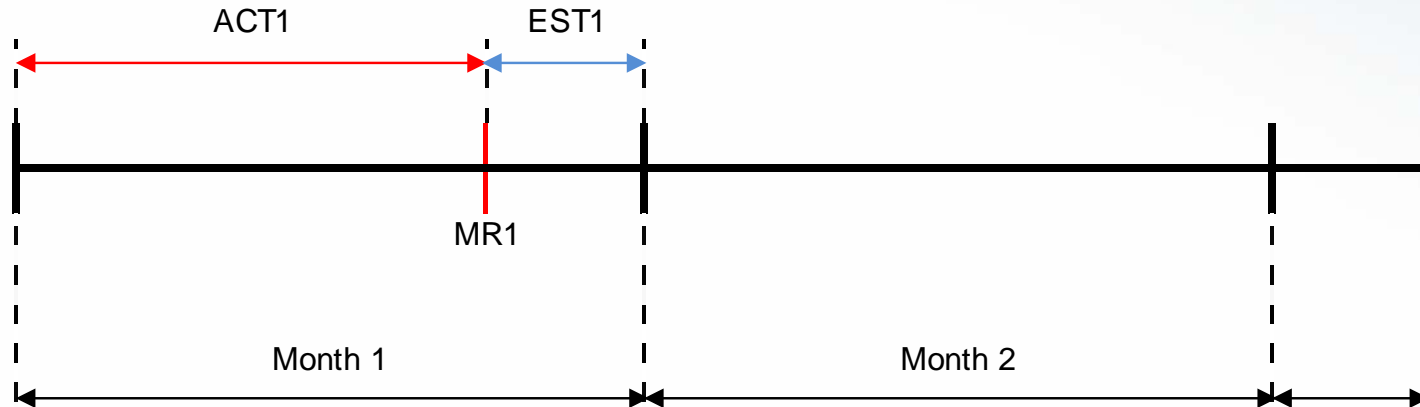
## INCREMENTAL NORMALISED



- Estimates consumption and line charges that would have occurred had the trader invoiced the consumer on a full calendar month basis

# BILLING METHODOLOGY

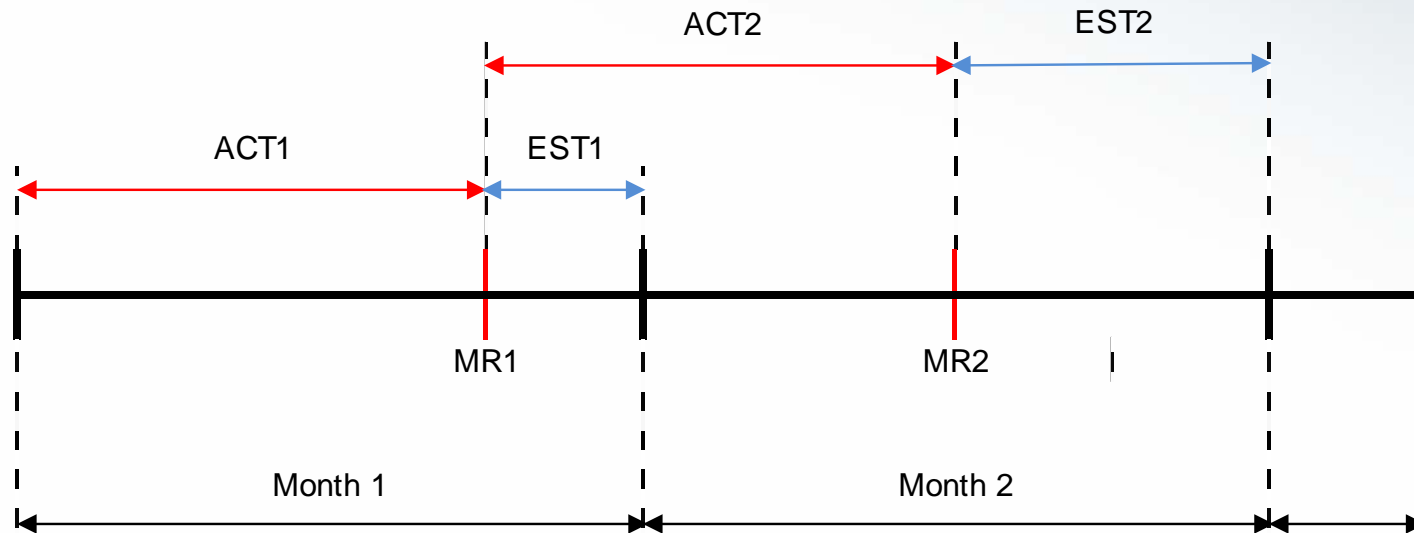
## INCREMENTAL NORMALISED



- Normalised month 1 = ACT1 + EST1

# BILLING METHODOLOGY

## INCREMENTAL NORMALISED



- Normalised month 2 =  $ACT2 + EST2 - EST1$
- Normalised month 3 =  $ACT3 + EST3 - EST2$
- Self correcting, adjustments for estimates not necessary

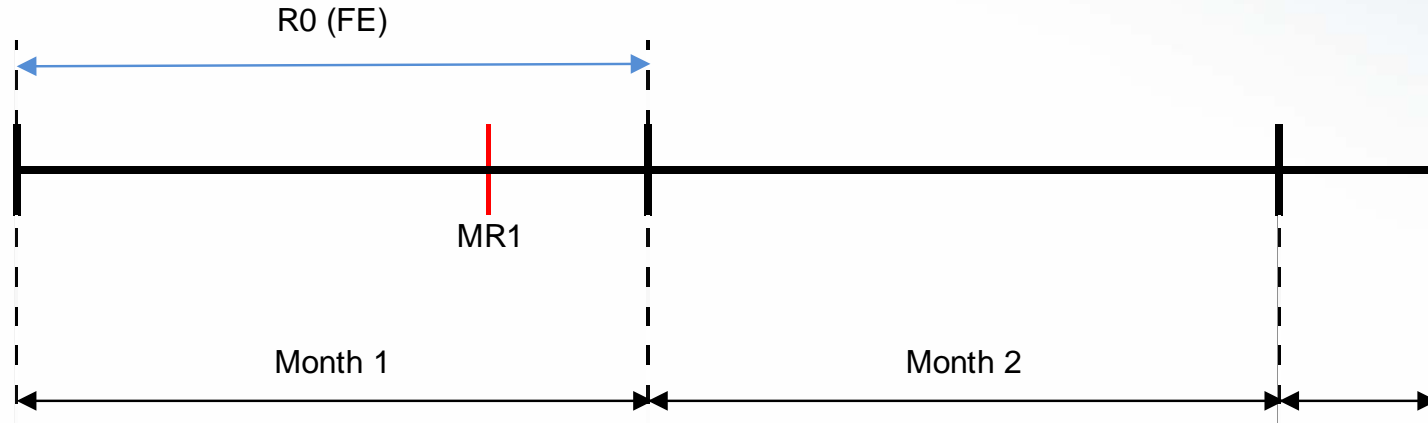
# BILLING METHODOLOGY

## INCREMENTAL NORMALISED

### Attributes

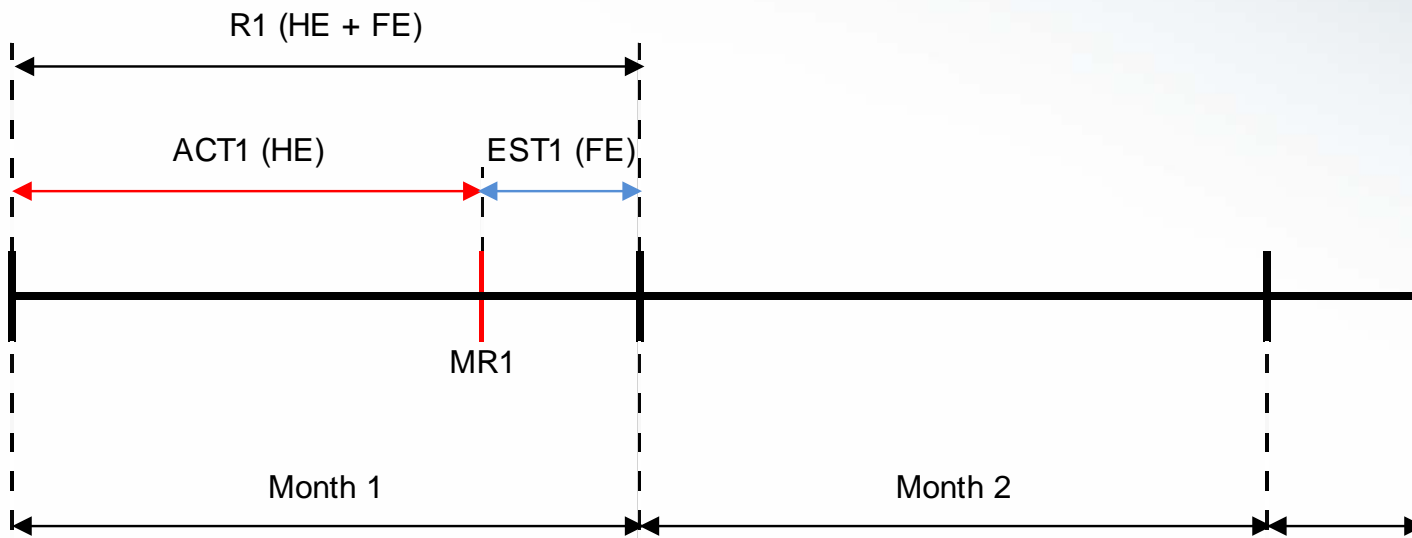
- network cash flow stabilised by retailers
- fixed and variable charges by network tariff code
- the provision of data for all vacant, billed or unbilled ICPs that have had the registry status of active against the trader at any time in the report period
- actual billed consumption plus an estimate of unbilled consumption from the billed read to the end of the month, less the estimate of unbilled consumption in the previous month
- incremental - all prior period corrections are included in the current report period and must show the correct start and end dates for any corrections or omissions relating to prior periods
- over or under estimates of variable quantities reported in previous months will self-correct in subsequent months

# BILLING METHODOLOGY REPLACEMENT NORMALISED



- Is a line charge billing method that reflects the quantities submitted to the reconciliation manager (RM) for the fixed and variable quantities
- Requires the use of revisions

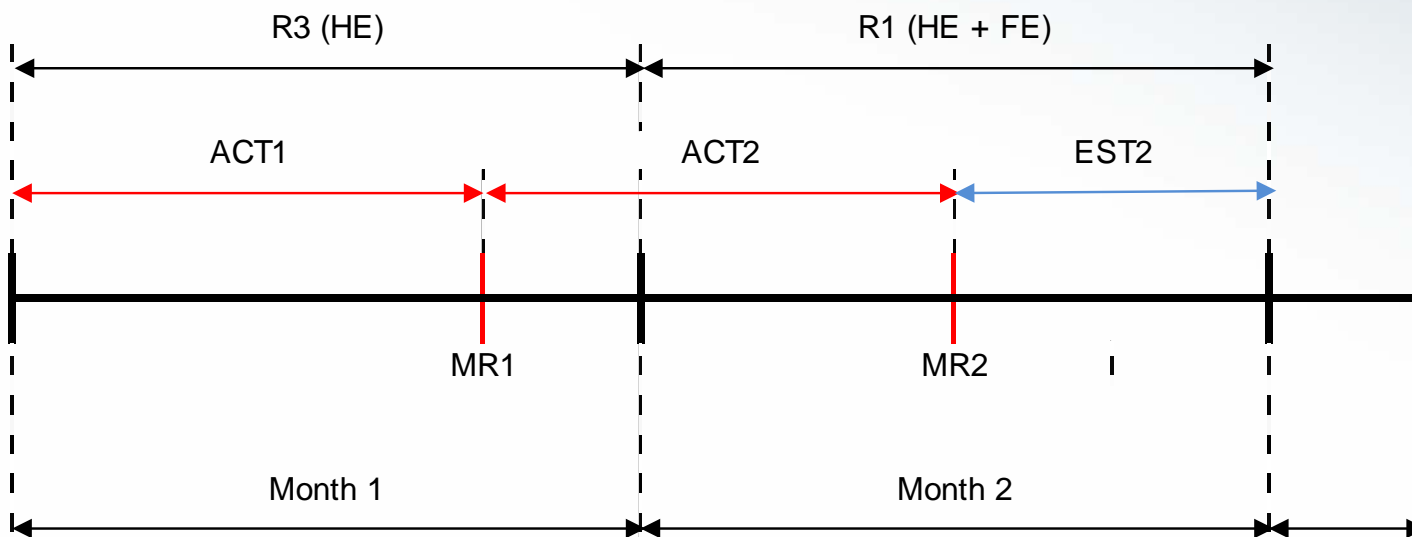
# BILLING METHODOLOGY REPLACEMENT NORMALISED



- ACT1 (historic estimate) allocated using seasonal adjustment shapes
- EST1 (Forward estimate) estimated
- R1 replaces R0



# BILLING METHODOLOGY REPLACEMENT NORMALISED



- Revisions will continued to move as
  - meter readings obtained and forward estimates are replaced
  - reconciliation manager seasonal adjustment shapes change

# BILLING METHODOLOGY REPLACEMENT NORMALISED

- Attributes
  - network cash flow stabilised by retailers
  - fixed and variable charges by network tariff code
  - consumption reported at the network tariff code level to align in aggregate with the quantities submitted to the RM
  - initial and revision reconciliations (R0, R1, R3, R7, R14, and any specials or those revision months must be used) which will result in multiple files

# BILLING METHODOLOGY

## INCREMENTAL REPLACEMENT NORMALISED

Is the same as replacement normalised except that the net impact of changes affecting prior months' volumes is reflected on the volume being reported in the current month