



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

**CER National Smart Metering Programme  
High Level Design – Appendix C  
(Presentation of Energy Usage Information)**

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### **Abstract:**

This paper outlines the proposed decision by the CER on the requirements for Presentation of Energy Usage Information, after taking account of responses received to its recent consultation on this topic.

This document should be read in conjunction with the related Smart Metering proposed decision paper (CER/13/286), which is issued in parallel.

### **Target Audience:**

This paper is for the attention of members of the public, the energy industry, consumers and all interested parties. It is of less relevance to large electricity and gas users because such consumers will not be directly affected by the National Smart Metering Programme (NSMP).

### **Related Documents:**

NSMP documentation is available on the CER website [here](#).

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## 1 Introduction

### 1.1 Purpose of this Paper

The purpose of this paper is to set out the proposed decisions on the minimum requirements for the provision of information to consumers regarding their energy usage. The minimum requirement will apply to three primary information channels: **Smart Bill, Mandated In Home Display;** and **Harmonised Downloadable File** (previously referred to as Customer Web Interface(s) in CER/13/164).

The combined purpose of these different information channels is to encourage more efficient use of energy by consumers and to enable them to take control of their own consumption patterns. This paper sets out CER's proposed decision for information provision to the consumer through each channel.

### 1.2 Structure of this Paper

- **Section 2:** provides an overview of strategy for presentation of energy information to the consumer.
- **Section 3:** describes the information presentation requirements to be delivered by suppliers via the Smart Bill.
- **Section 4:** describes the information presentation requirements related to the Harmonised Downloadable File to be delivered by suppliers and networks.
- **Section 5:** describes the information presentation requirements related to the Mandated IHD.
- **Section 6 Appendix C1:** provides a summary of the excluded information presentation requirements.
- **Section 7 Appendix C2:** provides a summary of responses received to the CER consultation on The Presentation of Energy Usage Information CER/13/164.

### 1.3 Scope of CSI Proposed Decisions

There is additional information that has been collected within this consultation that is not specific to the proposed decisions on the presentation of information and will be addressed as part of wider programme developments in the next phase of the NSMP:

- A number of implementation/transition points (Section 7.9.1)
- Home Area Network requirements (Section 7.9.3)
- Consumer Engagement (Section 7.9.5)
- The more general Data Protection points that are not addressed in this paper (Section 7.8)

## 2 Overview of Information Strategy

### 2.1 Strategic Position

The CER has reached the following minded to positions following analysis of the consultation<sup>1</sup> for the Presentation of Energy Usage Information (Smart Billing, Mandated In Home Display and Harmonised Downloadable File). The responses have been analysed and evaluated using the evaluation criteria set out in the paper. The CER has also taken into consideration the outputs of Focus Groups which have been undertaken in parallel with the consultation as well as the findings from the Steady State Model (SSM), Time of Use (TOU) consultations and sought guidance from the Data Protection workstream.

### 2.2 Introduction and Drivers

Information is planned to be provided to consumers through three primary information channels in the Smart Meter roll-out:

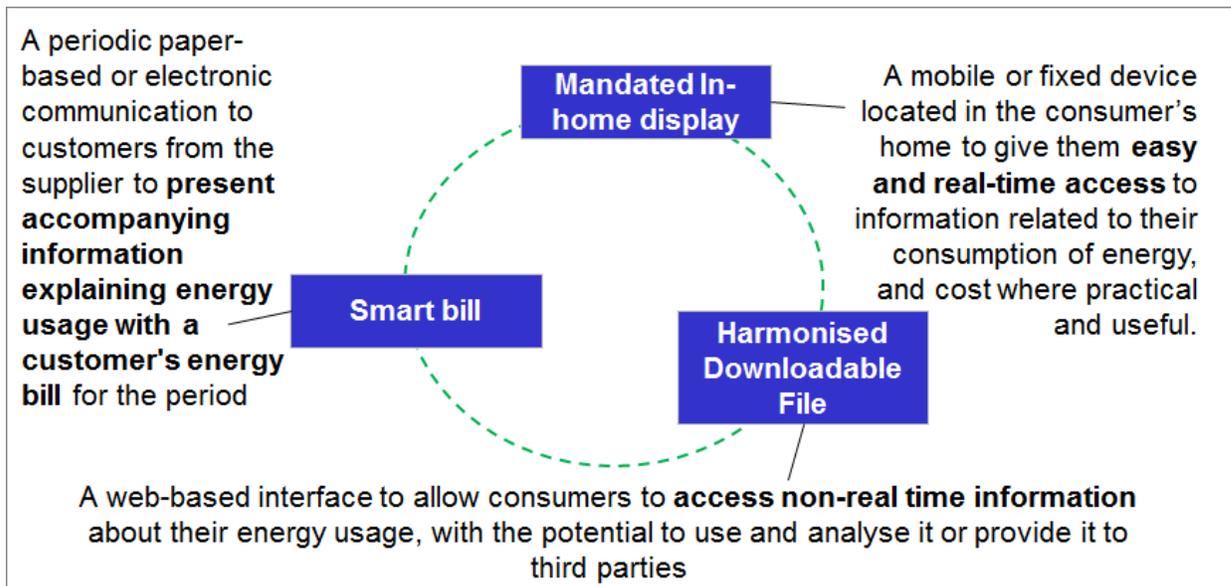


Figure 1 - Information channels

These three channels need to work together so that in unison they provide the different types of information to consumers. The Mandated In Home Display (MIHD) should be focused on easy and near real-time access to information, the Smart Bill (which is an enhancement of the existing bill with additional information) on information explaining energy usage linked to the bill and the associated costs, while the Harmonised Downloadable File should allow consumers access to their historical information, both

<sup>1</sup> CER/13/164

for their own purposes and to share with third parties (for example, to assist in finding the best tariff for them in the market). In combination the purpose of these different information channels is to encourage more efficient use of energy by consumers and to enable them to take control of their own consumption patterns.

It was recognised through the consultation that the presentation of cost on the MIHD would be dependent on decisions made on Time-of-Use (TOU) and the Steady State Model (SSM) consultations and the proposals in this paper reflect this.

The most suitable channel for presenting consumers with a simple representation of historical data has also been considered in this consultation.

## **2.3 Definitions**

### **2.3.1 In-Home Display Definition**

An In-Home Display (IHD) is defined as a device which is located in the consumer's home; it could be mobile or fixed. It displays information related to the consumption of energy, and cost where practical and useful. Its primary purpose is to give the consumer easy access to this information in such a way as to enable them to understand their energy consumption in order to modify their behaviour<sup>2</sup>. This document refers to a Mandated In-Home Display (MIHD) as the IHD to be provided and supported by ESB Networks as part of the regulated roll-out, as referred to in the CER Decision of July 2012<sup>3</sup>.

### **2.3.2 Smart Billing Definition**

Smart Billing is defined as the presentation of accompanying information detailing energy usage with a consumer's energy bill. This information details usage associated with different times and tariffs providing easy to understand comparative data. This aims to show the impact of changes in consumer behaviour and encourage energy efficiency.

### **2.3.3 Harmonised Downloadable File**

The Harmonised Downloadable File (previously referred to as Customer Web Interface) is defined as a web-based means of providing consumption in a standard harmonised downloadable format on request to consumers.

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<sup>2</sup> Results related to the impact of the IHD from the Customer Behaviour Trials can be found here: <http://www.cer.ie/en/information-centre-reports-and-publications.aspx?article=5dd4bce4-ebd8-475e-b78d-da24e4ff7339>

<sup>3</sup> CER/12/008: "In-home displays (IHDs) will be provided to all energy consumers as part of the full rollout during their electricity smart meter installation."

## **2.4 Purpose**

Each of the three channels has a core purpose and therefore a focus for the information it provides to the Consumer.

- The **Mandated In-Home Display** should focus on:
  - Providing near 'real-time' information on consumption, and cost where practical and useful;
  - acting as a device to assist consumers in making a step to greater engagement and understanding;
  - simple and easy to use information; and,
  - Information that relates to periods shorter than the billing window.
- The **Smart Bill** should focus on:
  - providing a periodic review of consumption and cost;
  - acting as a checkpoint for the consumer at consistent intervals; and,
  - information that links directly to their bill.
- The **Harmonised Downloadable File** should focus on:
  - providing access to historical interval data on import and export consumption; and,
  - harmonised presentation of data in a simple format.

In addition, there is the facility for presentation of simple historical analytical information by suppliers on request to consumers using appropriate means (e.g. web, smart bill, app).

## **2.5 Core Information**

There is a core of information to be considered for provision across the three channels which needs to align to their respective purposes. This information is based on three main pillars: consumption, price (tied in with the tariff), and cost. Each of these three pillars provides valuable information to a consumer with: consumption showing the actual energy consumed; price associated with a certain tariff period showing the relative expense of that consumption; and cost showing what the consumer is actually paying for their consumption.

These three pillars can also be used in conjunction with each other so that consumers can understand:

- how much they have used at different prices/tariff periods;
- how their cost of energy is driven by their consumption; and,
- how cost is related to different prices/tariff periods.

The information presented can also represent different timescales (see Fig 2 below) as follows:

- Real-time (or near real-time) – continually updated to show the current status;
- Periodic – showing a set period of time on a regular basis;
- Cumulative – showing 'to date' information whether on a daily, weekly, monthly

- or yearly basis;
- Historical – showing previous periods (day, week, month), including the equivalent period for the previous year.

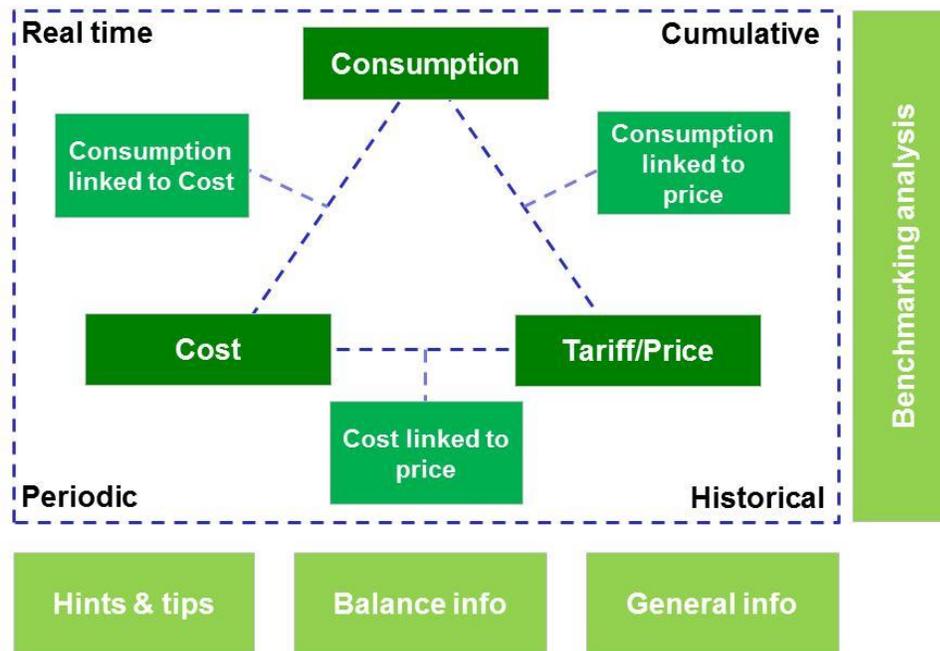


Figure 2 - Core information presented to consumers

### 2.5.1 Supplementary Information

In addition to this core information about a consumer's own energy consumption, price and cost, there is also further supplementary information that may assist in achieving the objectives of facilitating behaviour change and realising energy efficiency benefits. These are as follows:

- Benchmarking information – which allows consumers to see how their own energy consumption compares with other energy users;
- Hints and tips – to give consumers advice on how to change their behaviour and realise energy efficiency benefits;
- General information – to provide context and background information as well as contact information for helpful organisations;
- Balance information – to show Pay As you Go information related to the consumer's PAYG balance. This requirement is part of the PAYG requirements and therefore excluded from this paper and included in the PAYG paper<sup>4</sup>.

<sup>4</sup> See CER/13/286 Appendix D

## 2.6 Consumer Interaction

The core purpose associated with each information channel is intrinsically linked to an understanding of the different ways the channels are expected to be used and interacted (see Fig 3 below) with by the consumer.

- The MIHD is expected to be used for quick reference by consumers to check consumption, thus requiring minimal effort. This may be used regularly, for example on a daily basis, and therefore should be easy and convenient.
- The Smart Bill will be a periodic document requiring some effort from Consumers to analyse. However, it is still a “push” of information to the Consumer who is essentially still reactive in receiving the information.
- The Harmonised Downloadable File is expected to be a resource that is available to consumers on request (with response times to be investigated in the next phase of the NSMP) and which requires proactive effort from them to access and use. For those consumers that choose to use it, it is also likely to require a greater investment of time to read, understand and analyse the available information.

	<b>Consumer characterisation</b>	<b>Frequency of interaction</b>	<b>Level of consumer effort</b>
<b>Mandated In-home display</b>	“Kitchen worktop survey”	<b>High</b> – daily basis	<b>Low</b> – simple & easy - Information “push” - Reactive consumer
<b>Smart bill</b>	“Armchair survey”	<b>Medium</b> – Periodic based on receipt	<b>Medium</b> – some effort required - Information “push” - Reactive consumer
<b>Harmonised Downloadable File</b>	“Desktop survey”	<b>Indeterminate</b> – dependent on consumer choice	<b>High</b> – effort and time required - Requires proactive consumer to look for information

Figure 3 - Consumer interaction with information channels

In order to achieve objectives, it will be important to encourage consumer engagement and interaction with this information so that consumers’ progress from reactive receipt of information to becoming more proactively engaged.

It will also be possible for other non-mandated information channels such as smart applications to supplement the provision of information to the consumer in different ways. This consultation is not intended to constrain other innovative methods of presenting information to consumers over and above the minimum requirements set out in this paper.

## 2.7 Information Timescales

Based on the characteristics of the different information channels and their identified purposes in achieving consumer information objectives, there is a clear and discrete split of primary timescales associated with each information channel. The Mandated In-Home Display should focus primarily on presentation of near ‘real-time’ information and information relating to periods shorter than a billing window, the Smart Bill on the period associated with the bill, and the Harmonised Downloadable File on historic information.

However, it may also be desirable to extend each channel to a secondary timescale that supplements the primary in improving consumer awareness and understanding.

	Mandated In-home display	Smart bill	Harmonised Downloadable File
<b>Primary information timescale</b>	Real-time	Latest Period (billing period)	Historical
<b>Potential secondary information timescale</b>	Cumulative Past periods shorter than billing window	Past Periods	Cumulative

Figure 4 - Interaction timescales

- For the **Mandated In-Home Display** it is of benefit to consumers to also see a cumulative view of their consumption for the day, week or month to date, as well as past periods shorter than the billing window. This can help give a context for their near real-time consumption as well as enable them to set and keep within their own targets for consumption over different periods.
- The **Smart Bill** is of benefit to consumers for showing past periods as well as just the latest billing period to provide a comparison for the last billing period.
- The **Harmonised Downloadable File** has been assessed as a potential option for showing a cumulative view of consumption, in addition to its focus on granular historical information.

It is important that, between them, the information channels cover all four primary timescales (Real-time, Periodic, Historical and Cumulative) and this is the case.

The next phases of this program will consider in more detail the implications for relevant retail policies, such as: market processes, codes of practice, service level agreements etc.

## 3 Smart Bill

### 3.1 Summary of Requirements

Energy suppliers will be required to provide smart billing information alongside the consumer's energy bill, providing a periodic assessment of energy usage that facilitates customer engagement, and can deliver behavioural change. The requirements focus on the content to be provided and do not set out a specific template for suppliers to follow, provided that the information is provided in a clear and unambiguous manner.

Below is a summary of the CER proposals relating to the smart billing requirements as outlined in section 4.3 of the *Consultation on the Presentation of Energy Usage Information* (CER/13/164)<sup>5</sup>. These proposals were developed after taking into account European and national legislation relating to smart metering, as well as the results of the smart metering trials, cost-benefit analyses and focus groups. All requirements are explicitly and definitively referenced in the EU Energy Efficiency Directive<sup>6</sup>, other than the requirement to present advice in the form of hints and tips in the Smart Bill, which has been derived from a broader requirement for promoting efficient use of energy.

#### Summary of Proposals for Smart Billing (CER/13/164 Section 4.3)

1. An Energy Statement / information must be delivered to Consumers through existing processes, as part of the billing document or a separate document, offering the choice between paper and electronic format.
2. Suppliers must provide information relating to any time of use tariffs in place for electricity and gas, including a clear overview of the applicable tariffs for the current billing period and any other relevant charges or rebates, as well as information needed to identify the relevant tariff periods and Consumer energy consumption and cost during those tariff periods.
3. The billing information provided to the Consumer for the current billing period should be made available for comparison on the Smart Bill on an aggregate basis for the same billing period in the previous year, where there is sufficient historical billing information to provide such a comparison.
4. The following contact information relating to where additional information can be found, should be provided in an appropriate form to the Consumer in, or accompanying, their Smart Bill:
  - Independent Consumer advice centres;
  - Energy agencies or similar institutions;

<sup>5</sup> <http://www.cer.ie/en/information-centre-reports-and-publications>

<sup>6</sup> <http://eur-lex.europa.eu/>

- Advice on energy efficiency measures;
  - Benchmark profiles for their energy consumption; and
  - Technical specifications for energy using appliances
5. Hints and tips to the Consumer on how to reduce or shift their energy consumption and ultimately cost to the Consumer will be provided in the Smart Bill.
6. Where smart meters are installed complimentary billing information will be made available to the Consumer on request, at intervals where billing information has been produced for the previous three years or from the start of the supply contract if this is shorter.

The table below shows the proposed functional requirements set out in the consultation (CER/13/164) and the associated policy drivers.

**Table 1: Summary of Proposals for Smart Billing Functional Requirements**

REF	Requirement	EU EED	CER Decision	Proposed Mandatory Inclusion in Smart Bill?
SBR01	Energy Statement Arrangements and Communication Method	Article10.3(c) Annex VII	4.3.4.2 4.3.9 4(a/b)	✓
SBR02	Electricity and Gas Time of Use Information	Article 10.3(c) Annex VII 1.2(a)	4.3.4.2	✓
SBR03	Year-on-Year Energy Usage Comparison	Annex VII 1.2(b)		✓
SBR04	Additional Contact information	Annex VII 1.2(c) Annex VII 1.3		✓
SBR05	Hints and Tips	Article 12 (1)		✓
SBR06	Complimentary Billing Information	Article10.2(a)		✓
SBR07	Benchmarked Comparisons	Annex VII 1.2		<b>X</b> (For future review)

## **3.2 Evaluation Criteria**

### **3.2.1 Rationale and Evaluation**

Other than the presentation of hints and tips, the requirements for smart billing are specifically defined in the EU Energy Efficiency Directive and therefore these requirements are necessary in order to discharge the EU obligations.

In order to effectively achieve consumer benefits as set out in its core purpose, it is important that the Smart Bill will present energy usage information to Consumers in a format that is easy to understand. This should ensure maximum benefit to them. Therefore, while the default option is paper-based, consumers will also be able to opt into receiving it electronically as is currently offered by suppliers for existing bills. While frequency of billing needs to meet minimum EED requirements, it is proposed that beyond this it is left to the market to deliver, in order to allow for competition in this area and to avoid burdening suppliers with unnecessary costs.

In terms of the information to be shown on the Smart Bill, propositions set out aim to maximise benefits to the consumer without creating undue cost for suppliers in delivering these. It has also been considered important that the requirements set out in the Smart Bill allow room for competition and future innovation, while still fulfilling the core purpose of the Smart Bill in its role as part of an overall integrated National Smart Meter Programme.

Therefore requirements (at this stage) focus on what information will be presented on the Smart Bill rather than how it is presented<sup>7</sup> in order to allow for suppliers to innovate in the format in which they can most effectively present information to their Consumers. These requirements are focused on delivering benefits to the consumer, primarily through presenting a clear overview of the applicable tariffs to the consumer, including the timing of tariff bands and the consumption and cost associated with different bands. This is considered to be important for supporting time of use tariffs as illustrated in the Irish Smart Meter trials.

This information is supplemented by allowing the consumer to compare their consumption against the equivalent period for the previous year to give them a relevant comparison to understand changing usage. It is further supplemented by the provision of advice to the consumer in the form of hints and tips on how they can change their behaviour to effectively reduce their energy usage. Support for this was evident in both the Irish trials and wider international experience from Smart Meter trials<sup>8</sup> in empowering consumers to save money through their own decisions and actions. Delivering this through the Smart Bill ensures easy access to consumers with limited effort, while still being relatively low cost. The specific nature of the hints and tips is not being prescribed in the requirement to allow for supplier differentiation in their offerings.

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<sup>7</sup> Subject to billing codes of practice.

<sup>8</sup> See: CER consultation on The Presentation of Information CER/13/164, Appendix J – Experience from SM Trials and Programmes

This is further supported by the presentation of additional contact and reference information that gives consumers the means to follow up themselves in looking for advice on how they can be more energy efficient, as well as exposing them to energy saving products available to them. Finally, the ability to access a history of up to 3 years of their energy consumption information linked to billing periods is proposed to be made available to consumers on request to assist with further understanding and analysis of their bill.

With regard to the provision of benchmark information, which allows consumers to compare their usage against that of other similar consumers, it is thought that this is more appropriately left to the market to deliver, rather than regulate at this time. This approach is proposed in order to allow for competitive development in the area and to support the development of innovative and relevant benchmark comparison groups. However, over time the CER will monitor progress in this area in terms of both whether and how it is being delivered, and may intervene at a later date.

### **3.2.2 Consultation Responses**

Detailed responses are included in section 7.

Respondents were generally supportive of the requirements as defined by the CER. Two respondents disagreed with requirement SBR05 – Hints and Tips, on the grounds that it is not well defined (PrePayPower) and that Hints and Tips are better placed on suppliers' websites to avoid confusing customers (Airtricity). One respondent felt that there needs to be a minimum specification for what hints and tips should be provided to different customers (Opower).

A number of respondents have suggested that certain Smart Billing information should also be made available on other channels, either complementary to the information provided on the Smart Bill (SEAI, The Green Way), or as an alternative to placing the information on the Smart Bill (Airtricity, Energia). Other views include the possibility of granting suppliers the discretion to determine the most appropriate way to provide smart billing information (Electric Ireland), or more broadly to make smart billing information available separate from the billing event itself (Opower).

A few respondents have raised specific issues about the presentation of smart billing information, flagging specific requirements for disabled and vulnerable customers (NDA, NCBI), the need to provide information in an easy to read and understandable format (NCA), and a specific recommendation to provide information in graphic form (SVP).

### ***Provision of Benchmark Information***

With regard to the provision of Benchmark Information, the majority of responses received agreed with the proposed position not to regulate benchmarking (Opower, TicToc, BGE, Electric Ireland, Energia, PrePayPower, Airtricity, BGN).

Two respondents suggested that any regulation of benchmarking in the future should be based on a set of minimum standards or requirements (Opower, Energia). Only one respondent believed that benchmarking should be regulated (SEAI).

### ***Billing Frequency***

Views on the frequency of informative billing varied between respondents. A number of respondents indicated that the frequency of billing should be left to the market to capture customer preferences (BGE, TicToc, Electric Ireland). BGE suggested calendarisation of billing periods may enhance the potential for demand reduction.

Some respondents argued in favour of a specific billing periodicity. Two respondents felt monthly billing is the best option in terms of encouraging the consumer to change their behaviour (SEAI, NCA), and one respondent voiced agreement with the yearly statement requirement for prepaid customers (PrePayPower).

Various respondents flagged the cost impact of increased billing frequency, distinguishing between e-billing and paper billing. Broadly, the view was that e-billing can take place more frequently as it does not result in (much) additional cost (SEAI, Electric Ireland, BGN, Airtricity), although one respondent expressed concern about the costs of frequent billing in general – from the point of view of having to provide excessive additional information (Airtricity).

One respondent stated it was too early to comment on the frequency of billing (Energia).

### ***3.3 CER Decision***

The CER welcomes the broad support for the proposed information requirements on the Smart Bill, where the Smart Bill is defined as the existing energy bill that consumers receive enhanced by accompanying information explaining the consumer's energy use.

With regard to views on the presentation of hints and tips and whether these should be more clearly defined or that a minimum requirement should be set, these are noted but it is thought more beneficial that the market decide the most appropriate format for these as part of a competitive offer to consumers. In response to the point that this information could be shown better on a separate information channel, the CER considers that the Smart Bill is the most appropriate channel for this information in making it as easy as possible for consumers to access this information, as well as linking this advice to when a consumer is already considering their bill. However, the CER does agree that this can also be usefully supplemented by providing detailed information through other means such as websites.

In response to arguments around the potential to show this information on other information channels as well as, or instead of, the Smart Bill; the CER reaffirms that it feels the core purpose of the Smart Bill is to deliver this type of information, while the possibility of also presenting it elsewhere should be left to competitive market forces to decide. Similarly, in response to points made regarding the presentation format of the

Smart Bill, the CER notes the need for suppliers to make provision for vulnerable customers through following universal design principles but more widely prefers for the market to be allowed to innovate competitively in terms of how information is presented as long as the needs of vulnerable customers are met.

The CER notes the widely expressed support for the position proposed on benchmarking information and is of the view that this should not currently be required. Responses that called for minimum standards for benchmarking information have been noted and the option for potentially introducing these at a later stage will be retained on the basis of review.

The CER notes differing views expressed on frequency of billing but sees no definitive reason to change the initial policy position that this should be left to the market to determine, in line with minimum EED requirements that billing information should be made available at least quarterly on request or where the Consumers have opted to receive electronic billing, or else twice yearly (also for PAYG customers). While there is evidence that more frequent billing can lead to a greater energy reduction by consumers (as shown in the Irish trials), this needs to be weighed up against the costs associated with more frequent billing, especially if this is paper-based. The CER considers that the market is best placed to do this.

### **3.3.1 Summary**

In summary, after taking account of the responses received, the CER sees no reason to deviate from the proposals it set out in consultation and changes to wording in the decision are meant only for clarification.

#### **Decisions Relating to Smart Billing Requirements (CER/13/164 Section 4.3)**

1. An Energy Statement / information must be delivered to the Consumer (both residential and SME) through existing processes free of any transactional charge, as part of the billing document or a separate document, offering the Consumer choice of paper or electronic format.
  - a. With regards to PAYG Consumers, in order to align with credit Consumers, the frequency of provision of the energy statement / information should be in line with EED requirements stating that billing information should be made available at least quarterly on request or where the Consumers have opted to receive electronic billing, or else twice yearly.
2. Suppliers must provide information relating to any time of use tariffs in place for electricity and gas for that Consumer, including a clear overview of the applicable tariffs for the current billing period and any other relevant charges or rebates, as well as information needed to identify the relevant tariff periods and Consumer energy consumption and cost during those tariff periods.
3. The consumption information provided to the Consumer for the current billing period should be made available for comparison on the Smart Bill on an aggregate basis

- for the same billing period in the previous year, where there is sufficient historical billing information to provide such a comparison.
4. The following contact and reference information relating to where additional information can be found, should be provided in an appropriate form to the Consumer in their Smart Bill:
    - Independent Consumer advice centres;
    - Energy agencies or similar institutions;
    - Advice on energy efficiency measures;
    - Benchmark profiles for their energy consumption; and
    - Technical specifications for energy using appliances
  5. Hints and tips on how to reduce or shift their energy consumption and ultimately cost to the Consumer will be provided in the Smart Bill.
  6. Where smart meters are installed complementary energy consumption information will be made available to the Consumer on request, at intervals where billing information has been produced for the previous three years or from the start of the supply contract if this is shorter.

The table below shows the proposed decision on the functional requirements set out in the consultation (CER/13/164) and the policy drivers.

**Table 2: Summary of Proposed Decisions for Smart Billing Functional Requirements**

REF	Requirement	EU EED	CER Decision	Proposed Mandatory Inclusion in Smart Bill?
SBR01	Energy Statement Arrangements and Communication Method	Article10.3(c) Annex VII	4.3.4.2 4.3.9 4(a/b)	✓
SBR02	Electricity and Gas Time of Use Information	Article 10.3(c) Annex VII 1.2(a)	4.3.4.2	✓
SBR03	Year-on-Year Energy Usage Comparison	Annex VII 1.2(b)		✓
SBR04	Additional Contact information	Annex VII 1.2(c) Annex VII 1.3		✓
SBR05	Hints and Tips	Article 12 (1)		✓
SBR06	Complementary Billing Information	Article10.2(a)		✓
SBR07	Benchmarked Comparisons	Annex VII 1.2		<b>X</b> (For future review)

## 4 Harmonised Downloadable File

### 4.1 Summary of Requirements

The consumer will have the ability to access their energy usage data in a harmonised format to enable them to own and share their data with other parties to take advantage of services they may offer.

Below is a summary of the CER proposals relating to the Customer Web Interface (as it was then referred to) requirements as outlined in section 4.5 of the *Consultation on the Presentation of Energy Usage Information* (CER/13/164)<sup>9</sup>. These proposals were developed after taking into account European and national legislation relating to smart metering, as well as the results of the smart metering trials, cost-benefit analyses and focus groups.

#### Summary of Proposals for Customer Web Interface (CER/13/164 Section 4.5)

1. The Consumer will have the ability to access their half hourly interval consumption data on request via the internet. It will be provided to them in a standard harmonised format to enable them to analyse or share the interval data with an alternative Supplier or Third party (subject to the Consumers consent) offering other services.
2. It is CER's intention to require both Networks and Suppliers to provide this service. The Consumer will have access to at least 24 months data or data from the start of their supply contract (Supplier provided service); or 24 months data or data from the point of smart meter installation (Networks provided service).
3. It is expected that, where the Consumer requests it and it is available, export data will also be made available to them through the same process.
4. The provision of this information will be provided free of any transactional charges and within a reasonable time frame.
5. The functionality required to fulfil the proposed requirement is as follows:
  - a) Secure access for the Consumer to a web interface.
  - b) Functionality to export historical consumption data in a consistent and widely used, standardised format. The intention is not to restrict data provision to this single format, but the intention is to define a standard format that will always be available.
  - c) The specification of minimum data presented in the harmonised format for the historical consumption should contain the MPRN/GPRN and the

<sup>9</sup> <http://www.cer.ie/en/information-centre-reports-and-publications>

associated Meter Serial Number (MSN) split by date showing the consumption used in each of the 48 half hourly periods within the day for the selected time period.

The table below shows the proposed functional requirements set out in the consultation (CER/13/164) and the associated policy drivers.

**Table 3 – Summary of Proposals for Customer Web Interface Functional Requirement**

REF	Requirement	EU EED	CER Decision	Proposed Mandatory
CWIR01	Access to Historical Consumption Information in a National Harmonised Format	Article 9.2(d) Article 10.2(b) Article 11(1)	4.3.9/3.a/b/c	✓

## 4.2 Evaluation Criteria

### 4.2.1 Rationale and Evaluation

The requirement for the consumer to have the ability to access their half hourly interval consumption data on request to allow them to analyse and share their data is explicitly and definitively referenced in the EU Energy Efficiency Directive and therefore these requirements are necessary in order to discharge the EU obligations.

The service provision for the consumer to access their import and export data free of charge will be the responsibility of both networks and suppliers on request, for the reasons set out in consultation:

Advantages of Network (ESBN & BGN) provided services:

- Data requested from networks can be provided beyond the start of supply contracts, providing a richer source of data to consumers regardless of switching activities;
- consumers may not want to contact their existing supplier if they wish to change supplier or take services from a competitor and the networks would provide a neutral source of data; and,
- This facilitates consumer switching and the energy services market which is consistent with the objectives of the National Smart Metering Programme.

Advantages of Supplier provided services:

- This is consistent with the Core Design role for suppliers maintaining the primary relationship with consumers, which is key; and,
- This can sit beside innovative consumer offerings for the provision of data and services.

It is expected that the supplier would be the first port of call for the consumer for this type of information and that this primary relationship should be maintained. The option of obtaining the information from networks is always available to all consumers, but is particularly expected to be utilised by those who cannot access the information they need through their supplier (i.e. because they have changed supplier within the last two years), or those who would prefer not to go to their supplier because it may signal that they are looking to change supplier, or because they are in dispute with their supplier. CER expect that suppliers will sign-post customers to networks in these circumstances. Further detail regarding the process for consumers and their experience in understanding how to approach networks will be defined in the next phase of the NSMP.

#### **4.2.2 Consultation Responses**

Detailed responses are included in section 7.

Respondents were in broad agreement with the proposed requirement for the Customer Web Interface and agreed that the consumer should provide access to their data to Third parties (rather than direct access for third parties to supplier & network services) with the exception of SEAI who believe the consumer should be able to grant secure access to Third parties to access data on their behalf.

There were mixed responses to the question regarding responsibility for the service provision and the minded to position that both networks and suppliers will provide the service. In general both network companies believe it should be provided by suppliers noting that the provision of the service by both parties would increase complexity and cost. Suppliers were generally split between a supplier-only provided service and it being provided by both parties, whilst SEAI and one other supplier stated both parties should provide the service.

Respondents in general felt it was too early at this stage to determine the format or response timing for the harmonised data download, however where responses were provided the general theme was that the response time should be instantaneous and the file format common, examples cited were CSV and XML.

There was general support for consumer guidance to be provided on how consumers are provided with their energy usage data.

#### **4.3 CER Decision**

The CER welcomes the broad support for the proposed information requirements on the Customer Web Interface and access to the data by consumers only. The CER recognises the importance of this being a supplier provided service and has noted the potential for some further costs to be incurred from having both networks and suppliers providing this service.

The CER has noted respondent's views on the responsibility of the service provision however CER is of the view that the responses against the proposal are not strong

enough to merit a change and reiterates its position to regulate the provision of this service by both networks and suppliers on request of the consumer with the caveat that this can be reviewed at a later date should new business drivers arise.

The CER welcomes views regarding the format and response times. After consideration of the responses, the CER will develop the format and associated SLA's for provision of the harmonised data download by networks and suppliers in the next phase of the NSMP. The CER also welcomes the widely expressed views that there should be guidance in place for the Consumer and will look to develop this in the next phase of the programme.

#### **4.3.1 Summary**

In summary, after taking account of the responses received, the CER sees no reason to deviate from the proposals it set out in consultation. However, following further discussion with the industry, it has been agreed that the heading for this area will change to "Harmonised Downloadable File" rather than "Customer Web Interface" in order not to give the impression that the requirement is for anything more than the provision of this data file.

### **Decisions Relating to Harmonised Downloadable File Requirements**

1. The Consumer will have the ability to access their half hourly interval consumption data on request via the internet. It will be provided to them in a standard harmonised format to enable them to analyse or share the interval data with an alternative Supplier or Third party offering other services. Third parties will not be able to access this data directly from Suppliers/Networks but only via Consumer consent.
2. It is CER's intention to require both Networks and Suppliers to provide this service. The Consumer will have access to their consumption data:
  - a. For at least 24 months or from the start of their supply contract, whichever is shorter (Supplier provided service); or,
  - b. For at least 24 months or from the point of smart meter installation, whichever is shorter (Networks provided service).

*Supplier and Network receipt, or access to this granular data is currently under review to ensure compliance with Data Protection Legislation through engagement with the DPC.*
3. It is expected that, where the Consumer requests it and it is available, export data will also be made available to them through the same process.
4. The provision of this information will be provided free of any transactional charges and within a reasonable time frame.
5. The functionality required to fulfil the proposed requirement is as follows:
  - a. Secure access for the Consumer to a web interface.
  - b. Functionality to export historical consumption data in a consistent and widely used, standardised format. The intention is not to restrict data provision to

this single format, but the intention is to define a standard format that will always be available.

c. The specification of minimum data presented in the harmonised format for the historical consumption should contain the MPRN/GPRN and the associated Meter Serial Number (MSN) split by date showing the consumption used in each of the 48 half hourly periods within the day for the selected time period.

The table below shows the proposed decision on the functional requirements set out in the consultation (CER/13/164) and the policy drivers.

**Table 4 – Summary of Decision Proposals for Customer Web Interface Functional Requirement**

REF	Requirement	EU EED	CER Decision	Proposed Mandatory
CWIR01	Access to Historical Consumption Information in a National Harmonised Format	Article 9.2(d) Article 10.2(b) Article 11(1)	4.3.9/3.a/b/c	✓

## 5 Mandated IHD

### 5.1 Summary of Requirements

The consumer will be offered an In Home Display (at no additional cost them) to show them information about their energy usage in near real time. The CER see the main objective of the MIHD as an educational tool to encourage Consumer engagement. MIHD requirements cover the minimum of what information should be shown to the consumer within the home on the Mandated In-Home Display.

There will be a proportion of consumers who will not be able to have a MIHD installed because of technical reasons (e.g. no HAN coverage) and the information requirements for those consumers will be further investigated by the CER in the next phase of the NSMP. The CER will work with industry to determine any specific information provision requirements for these consumers.

Below is a summary of the CER proposals relating to the Mandated In-Home Display requirements as outlined in section 4.2.1 and subsequently Section 4.4 of the Consultation on the Presentation of Energy Usage Information (CER/13/164). These proposals were developed after taking into account European legislation relating to smart metering, the CER July 2012 Decision Paper, as well as the results of the smart metering trials and cost-benefit analyses.

#### **Summary of Proposals for the Mandated In Home Display Requirements (CER/13/164 Section 4.4)**

1. MIHD Functionality will include as a minimum:
  - a. Presentation of Consumption data
    - i. Instantaneous Active Electricity Demand (Real-Time): MIHDR01
    - ii. Up to Date Consumption Position in Time Period (Cumulative gas and electricity: current day, week and month): MIHDR02
    - iii. Past Period Consumption Comparison (Historical): MIHDR03
  - b. Presentation of Cost data
    - i. Instantaneous indicative Cost of Demand : MIHDR01(a)
    - ii. Up to Date indicative Cost Position in Time Period (Cumulative): MIHDR02(a)
    - iii. Past Period Cost Comparison (Historical) MIHDR3(a)
    - iv. Time of Use Bands and Price Information: MIHDR05
2. Proposed Options for Consideration for input of Price/Tariff onto the MIHD to Display Cost  
The source of price/tariff data to the MIHD for consideration could be:
  - a. From originating Supplier systems via the Metering Infrastructure;
  - b. Pre-configured within the MIHD by ESNB at the point of or in advance of installation, according to Supplier tariff price or “generic” tariff price;
  - c. Manually configured by either ESNB / Supplier / 3rd Party / Consumer during the life of the MIHD.

3. Proposed Options for Ambient Feedback
  - a. Ambient feedback on the basis of Electricity Time of Use Bands: MIHDR04
  - b. Ambient feedback on the basis of Consumption: MIHDR04a
  
4. ESNB will be responsible for:
  - a. Procuring the MIHD
  - b. Providing technical support for 2 years from the date of MIHD installation

The table below shows the proposed functional requirements set out in the consultation (CER/13/164), the associated policy drivers and dependencies.

**Table 5 - Summary of Proposals for MIHD Functional Requirements**

REF	Requirement	CER Decision	CER Minded to Include/Exclude	Dependent on Other Policy
MIHDR01	Instantaneous Active Electricity Demand (Real-Time)	4.3.3.2 4.3.9/3.d	✓	No Dependency
MIHDR01(a)	Instantaneous Cost of Demand for the Hour	4.3.3.2 4.3.9/3.d	Subject to	Time of Use Steady State Model
MIHDR02	Up to Date Consumption Position in Time Period (Cumulative)	4.3.3.2 4.3.9/3.d	✓	No Dependency
MIHDR02(a)	Up to Date Cost Position in Time Period (Cumulative)	4.3.3.2 4.3.9/3.d	Subject to	Time of Use Steady State Model
MIHDR03	Past Period Consumption Comparison (Historical)	4.3.3.2 4.3.9/3.d	✓	No Dependency
MIHDR03(a)	Past Period Cost Comparison (Historical)	4.3.3.2 4.3.9/3.d	Subject to	Time of Use Steady State Model
MIHDR04	Ambient Feedback of Electricity Time of Use Tariffs	Incremental	Subject to	Time of Use Steady State Model
MIHDR05	Tariff and Price Information	4.3.3.2 4.3.9/3.d	Subject to	Time of Use Steady State Model

## 5.2 Evaluation Criteria

### 5.2.1 Rationale and Evaluation

#### Presentation of Cost:

There is widespread recognition of the importance of the presentation of cost to consumers in consultation responses, focus group feedback and the Customer Behaviour Trials. Providing the facility to display cost is important to deliver the benefits of Consumer experience and energy efficiency. The Core Design will not provide tariff band and price data from the AMI, therefore a feasibility study will be

conducted by ESBN, with involvement from the wider industry, during 2014 to identify viable options (from both a technical & economical perspective) to enable automatic updates of TOU band/tariff rates to the MIHD (assuming no change to the Core Design). The MIHD will have the capability of displaying instantaneous and cumulative cost data. Tariff band and price data will be provided by Suppliers.

#### **Ambient Feedback:**

One of the key objectives of the NSMP is for peak shifting and this was recognised in the Customer Behaviour Trials with an ambient display on the basis of TOU bands. This delivers consumer benefits with associated behaviour change to shift consumption. Subject to the feasibility study outlined above, the TOU bands will either be remotely updated to the MIHD or, if automated update is not possible, the standard TOU tariffs will be pre-configured and suppliers offering their customers non-standard TOU time band products will need to offer an appropriate solution to meet minimum information requirements.

#### **Presentation of Historical Data:**

CER have revisited the best way to present historical data in terms of the strategic drivers and evaluation criteria. In terms of the strategic drivers, CER consider that there is a benefit to historical data being presented on the IHD for immediate “kitchen-top” response, but accept that a key driver for historical data will be “desk-top” analysis. By moving the presentation of historical data from the MIHD to a service to be provided by suppliers on request, CER believe that it will be targeting the consumers that really want the data and that they can request it in a format to suit their analysis. This should support future development, competition and innovation and CER recognise that this type of service is available to many consumers now.

Moving the provision of historical data from the MIHD will make this a simpler and therefore cheaper device with less overhead on explaining the device to consumers and an improved customer experience. One of the desires from the Customer Behaviour Trials and focus groups was for a simple and uncluttered display with only 24% of participants looking past the first screen.

While the provision of historical information is not a minimum requirement for the MIHD it is still possible that it might be additional functionality that is included on the device that is finally procured by ESBN (e.g. if it comes as standard with the most cost effective MIHD). If this is the case, then it is expected that adequate measures should be taken to protect against any potential data protection issues associated with a Change of Legal Entity (COLE) event, where data on historical energy usage from the previous occupier of a property could be accessed by the new occupier (e.g. a manual reset button with the consumer educated on using this button on COLE).

#### **Real-time and Cumulative Data:**

This data is a key trigger for behaviour change for energy efficiency and the only place to deliver the ‘kitchen-top’ response from the strategic drivers. The consumer benefits of energy efficiency are delivered in a simple, low cost device for consumers. Near real-time consumption data is available from the AMI via the Utility HAN, therefore this is consistent with the Core Design.

### **5.2.2 Consultation Responses**

Detailed responses are included in section 7.

Generally respondents were supportive of the requirements but with some disagreements regarding the provision of historical information on the MIHD for comparison in terms of strategic drivers, which has been reconsidered in the proposed decisions.

The complexity and dependencies on providing cost and tariff information on the MIHD was noted by many respondents and this has been recognised in the proposed decisions.

There were suggestions that there are more appropriate ways to view energy usage information over the internet and whilst recognising that innovation is important, there are more flexible information requirements defined in the proposed decisions.

There was general acceptance that the MIHD is the only appropriate place to present real-time and cumulative data and these requirements were generally accepted by respondents. The CER considered various options and alternatives on the MIHD and arrived at the view from international studies, the Customer Behaviour Trials and focus groups that there are benefits to the MIHD showing consumption and cost information.

There were mixed views on whether the consumer should update the MIHD manually with TOU tariff band & price data. Given the importance of displaying cost, the CER has decided that ESNB should first conduct a feasibility study on whether TOU tariff band & price data could be updated automatically and if that is not possible, that there will be no pre-configured price data on the MIHD so as not to confuse Consumers. Appropriate guidance regarding inputting price data will be given to the Consumer at MIHD installation.

## **5.3 CER Decision**

### **5.3.1 Summary**

After taking account of the responses received and further analysis and evaluation, the table below reflects the proposed position by requirement with associated notes.

#### **Decisions Relating to Mandated In-Home Display Requirements**

- 1. A MIHD will be offered to all residential customers<sup>10</sup>.**
- 2. MIHD Functionality will include as a minimum**

<sup>10</sup> A MIHD will not be offered to SME's.

- a. Presentation of Consumption data
    - i. Instantaneous Active Electricity Demand (Real-Time): MIHDR01
    - ii. Up to Date Consumption Position in Time Period (Cumulative gas and electricity: current day, week and month): MIHDR02
    - iii. Ambient feedback on the basis of Electricity Time of Use Bands: MIHDR04
  - b. Presentation of indicative Cost data (not bill quality)
    - i. Instantaneous indicative Cost of Electricity Demand : MIHDR01(a)
    - ii. Up to Date indicative Cost Position in Time Period (Cumulative gas<sup>11</sup> and electricity): MIHDR02(a)
    - iii. Time of Use Bands and Price Information (electricity only): MIHDR05
3. A feasibility study will be conducted by ESNB, with involvement from the wider industry, during 2014 to identify viable options (from both a technical & economical perspective) to enable automatic updates of TOU band/tariff rates to the MIHD (assuming no change to the Core Design). The full scope and criteria used in this study will be defined in 2014.
4. If the CER is of the view that automation is not feasible, a basic MIHD will be procured by Networks which delivers the following minimum functional requirements in addition to the above:
- a. Has the default TOU bands pre-configured (default TOU only) for the ambient feedback: MIHDR04
  - b. Allows for manual input of tariff rates by Consumers: MIHDR05
5. ESNB will be responsible for:
- a. Procuring the MIHD
  - b. Installing the MIHD during the Meter installation process<sup>12</sup> (based on Consumer acceptance of MIHD offer and technical feasibility of installation e.g. HAN signal)
  - c. Providing technical support for 2 years from the date of MIHD installation (this may be subject to review when considering transition/implementation & timing of default TOU)
6. Suppliers will be responsible for:
- a. Providing support to the Consumer in relation to TOU bands and tariff rates and any activities required to update these on their IHD.
  - b. Providing historical cost and consumption data to Consumers on request using appropriate means for their Customers (e.g. web; smart bill, app): MIHDR03. The CER will develop further guidelines regarding the format and response timing for the provision of this information in the next phase of the NSMP.
  - c. if suppliers are offering their Customers non-default TOU products with different time bands, suppliers will be asked to offer an appropriate solution to

<sup>11</sup> The MIHD may come preconfigured with an indicative CER approved Calorific Value

<sup>12</sup> The specifics of the rollout strategy will be defined as part of transition planning.

meet minimum information requirements as specified in decision point 2 (in line with the period specified for technical support in decision point 5c).

7. There will be no input / configuring of price data into the MIHD by ESNB. It will be up to the Consumer to input price data or for the supplier to update this data automatically if feasible. Appropriate guidance regarding inputting price data will be given to the Consumer at MIHD installation.
8. There will be a proportion of Consumers who will not be able to have a MIHD installed because of technical reasons (e.g. no HAN coverage) and the information requirements for those Consumers will be further investigated by the CER in the next phase of the NSMP. The CER will work with industry to determine any specific information provision requirements for these Consumers.

The table below shows the proposed decision on the functional requirements set out in the consultation (CER/13/164), the policy drivers and dependencies.

**Table 6 - Summary of Proposed Decision for MIHD Requirements Previously Identified**

REF	Requirement	CER Decision	Proposed Mandatory	Notes
MIHDR01	Instantaneous Active Electricity Demand (Real-Time)	4.3.3.2 4.3.9/3.d	✓	
MIHDR01(a)	Instantaneous Cost of Demand for the Hour	4.3.3.2 4.3.9/3.d	✓	Facility to display if Consumer inputs price
MIHDR02	Up to Date Consumption Position in Time Period (Cumulative)	4.3.3.2 4.3.9/3.d	✓	
MIHDR02(a)	Up to Date Cost Position in Time Period (Cumulative)	4.3.3.2 4.3.9/3.d	✓	Facility to display if Consumer inputs price
MIHDR03	Past Period Consumption Comparison (Historical)	4.3.3.2 4.3.9/3.d	✓	Not on MIHD, but provided on request by suppliers to their Customers
MIHDR03(a)	Past Period Cost Comparison (Historical)	4.3.3.2 4.3.9/3.d	✓	Not on MIHD, but provided on request by suppliers to their Customers
MIHDR04	Ambient Feedback of Electricity Time of Use Tariffs	Incremental	✓	
MIHDR05	Tariff and Price Information	4.3.3.2 4.3.9/3.d	✓	Tariff Bands pre-configured Consumer to input price

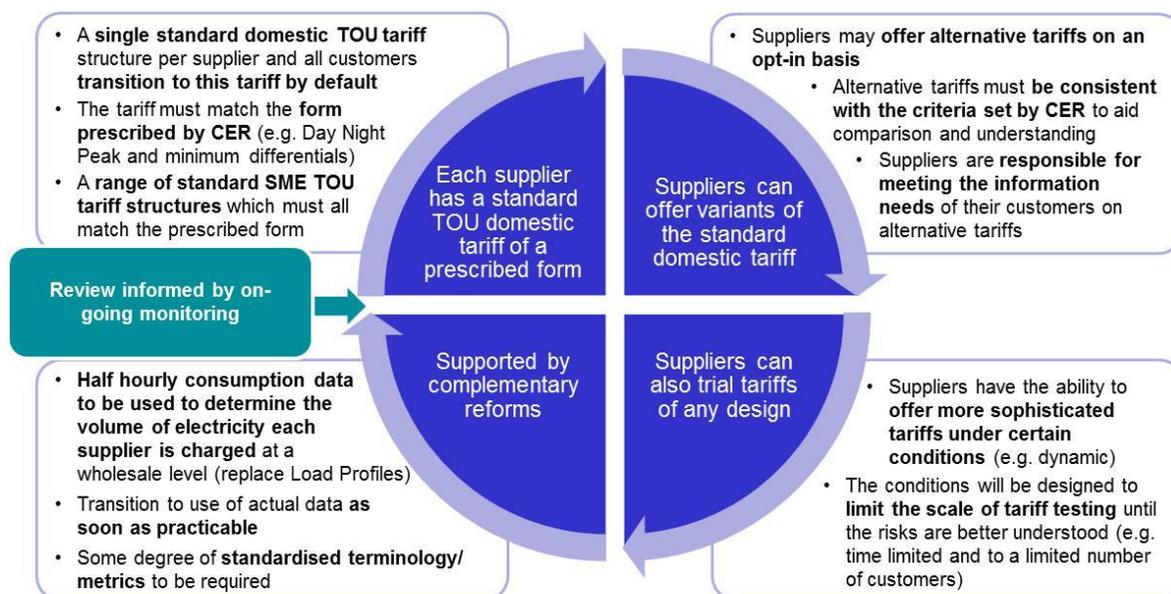
### 5.3.2 MIHD Requirements Mapped to TOU Options if Automation Not Possible

If automated update of the MIHD for TOU information is not possible then we would be reliant on the update of data by consumers with support from suppliers.

To aid understanding of the implications of manual update, we have described below a set of potential scenarios associated with consumers updating TOU bands and tariff rates for options within the proposed TOU model. In all the scenarios listed, the consumer will have to enter price data into the MIHD so that cost of energy can be displayed.

These are provided to aid understanding of stakeholders and should not be viewed as definitive at this stage.

#### TOU approach:



**Scenario 1:** If a consumer opts to stay on the standard TOU tariff then the MIHD will reflect the associated pre-programmed tariff bands and the consumer will have the choice of either manually inputting tariff band prices on the MIHD or continuing to use the MIHD as a device to provide ambient feedback by representing the correct tariff bands.

**Scenario 2:** If a consumer chooses a non-default TOU product with the same time bands but different prices, then the MIHD will still correctly reflect the pre-programmed tariff bands and again the consumer will have the choice of either: updating tariff band prices on the MIHD, or not inputting prices in which case this information will not be displayed on the MIHD (or show any previously input prices which will now be incorrect). Suppliers will ensure that their customers are fully aware of the change in their tariff and of the new relevant prices. Again, consumption will continue to be

displayed even if price is not entered and ambient feedback will continue to represent the tariff bands accurately.

**Scenario 3:** If a consumer chooses a non-default TOU product with different time bands, Suppliers must offer to the consumer an appropriate solution which provides real time information to the consumer that meets or exceeds the above minimum requirements. If this is to be offered via a supplier provided solution, then this will be subject to technical feasibility of installation (e.g. HAN signal).

**Scenario 4:** Where suppliers are trialling more sophisticated tariffs, it is expected that they will propose how appropriate information will be presented to consumers, including consideration of the MIHD requirements, as part of their trial proposals. These will be discussed with the CER post trial and pre implementation.

## 6 Appendix C1 – Excluded Requirements

Potential requirements were collected through feedback from the CER July 2012 Decision paper CER/12/008<sup>13</sup> and industry workshops. It was proposed by the CER that the following requirements are excluded from the three channels under discussion as there is no incremental benefit.

### 6.1 Summary of Requirements

#### Summary of Proposals for Requirements CER are Minded to Exclude (CER/13/164 Section 4.7)

1. Pay as You Go (PAYG) Information
2. Text Capability to the MIHD
3. CO2 Intensity on the MIHD
4. Temperature on the MIHD
5. Budget Setting on the MIHD
6. Illustrative Appliance Consumption on the Smart Bill

### 6.2 Evaluation Criteria

#### 6.2.1 Rationale and Evaluation

1. **Pay as You Go (PAYG) Information:** The Mandated In Home Display (MIHD) is only required to be supported for the first two years of the programme and therefore cannot be relied upon to support PAYG balance information beyond this time. This means that the comparative PAYG solutions cannot be dependent on any related information being displayed on a MIHD.
2. **Micro-generation information:** Export energy is to be included in the Harmonised Downloadable File, but there are no further proposals to provide separately metered micro-generation information as part of the MIHD or other information channels at this stage. This is because it is not known what information is likely to be available from any micro generation metering or infrastructure. The presentation of micro generation will therefore be kept open for review at a later stage in the programme.
3. **Text Capability to the MIHD:** It was raised in the industry workshops that text message capability on the MIHD, to act as a communications channel from supplier to customer, would be a useful functionality. However the CER is minded not to mandate such functionality as this is likely to increase the cost of the MIHD and Metering Infrastructure for an interim period.

<sup>13</sup> <http://www.cer.ie>

4. **CO2 Intensity on the MIHD:** The CER July 2012 Decision paper stated that it would consider the presentation of CO2 intensity on the MIHD in phase 2 of the programme. This has been assessed and the international experience shows there is little or no benefit in changing consumer behaviour by presenting CO2 intensity, even to the well-informed, therefore the CER are minded to exclude this functionality from the MIHD.
5. **Temperature on the MIHD:** Showing the current temperature on the MIHD was considered, however the conclusion in Industry workshops was that, though this was a useful function, it is seen as a “nice to have” and there is no clear incremental benefit in including this as a mandated requirement. Therefore the CER’s view is that this should not be a mandated requirement but that if it is available as a function ‘out of the box’ then it may be desirable to include.
6. **Budget Setting on the MIHD:** Budget setting was a feature in the Irish trials where Consumers had the facility to set an indicative daily budget which they could measure themselves against. This was part of the design input from the consumer focus groups and was cited as useful by consumers. However, it is debatable that including budget setting on the in home display will add to the benefits to the programme considering the costs if included in the design. Therefore, it is seen as a “nice-to-have” option rather than something that should define the procurement.
7. **Illustrative Appliance Consumption on the Smart Bill:** This was a feature of the Energy Statement provided in the Irish trials where it was noted that there was a lack of knowledge amongst Consumers regarding the electricity consumed by general household appliances, Also noted was that consumers found it useful to have general information on appliance energy usage but would prefer the information to be more accurate regarding the actual appliances they had rather than the average appliance. It was concluded in the industry workshops that there are better and more accurate ways of presenting this information to consumers and that offerings from Energy Suppliers’ Energy Services are a more appropriate channel for this information to get to the consumer.

#### **6.2.2 Consultation Responses**

In the main, respondents did not provide feedback to the requirements CER proposed to exclude. SEAI did state that PAYG customers require balance information, proposing that this should drive the TOU and Core design. Other respondents thought that the display of PAYG information should be considered but recognised it was an issue for the MIHD.

SEAI also stated that budget setting should be a requirement as this was included in the trials and that micro-generation information should be facilitated on the MIHD.

Energy Action responded by suggesting that temperature on the MIHD was a potential function for measuring buildings thermal energy performance.

### **6.3 CER Decision**

CER's view on displaying PAYG information on the MIHD is that the device is only a 'stepping stone' educational tool for consumers to engage with a limited lifespan therefore increasing its complexity may increase cost and undermine the benefits to the consumer. CER is therefore minded to exclude the requirement and consider alternatives within the context of PAYG requirements.

Regarding budget setting, CER recognise some of the feedback from focus groups and respondents, but the CER view is that this will increase the cost of the device and that this function aligns more with debt management rather than energy efficiency. Therefore the requirement is deemed 'nice to have' as there is little incremental benefit. CER is also of the view that the MIHD will not drive the design of the overall architecture as the MIHD is viewed as a 'stepping stone' device and not part of the enduring solution.

CER are of the view that micro-generation information should not be facilitated on the MIHD due to its limited enduring capability, resulting in an increase in cost for little benefit.

Whilst CER recognise temperature may be useful it is unlikely to have enough benefit to justify the increase in cost and therefore CER see this as 'nice to have' rather than core functionality. ESNB should consider whether this can be included during procurement given some of the comments in the consultation responses, but it is not a mandated minimum requirement.

In summary, after taking account of the responses received, and bearing in mind the need not to confuse consumers with an overly complex device, as well as the need to limit costs associated with a potentially temporary device, the CER sees no reason to deviate from the proposals it set out in the consultation. The above will not be considered as mandatory requirements of the NSMP, though they could be additional functionalities to consider in procurement as long as they do not constrain that process or incur additional cost.

## 7 Appendix C2 - Summary of Consultation Responses

### 7.1 Summary of Responses

In total the CER received 18 responses to the consultation paper from various stakeholders. Responses came in a range of formats with some respondents filling in the full Appendix A questionnaire and others choosing to focus on specific aspects or to submit a cover letter.

The table below is a summary of the various companies and organisation which responded to the consultation.

Category of response	Respondents
<b>Retail</b>	Airtricity Bord Gáis Energy (BGE) Electric Ireland Energia Pre Pay Power Electricity Association of Ireland (EAI)
<b>Networks</b>	ESB Networks (ESBN) Bord Gáis Networks (BGN)
<b>Consumer Organisations</b>	National Consumer Agency (NCA) Energy Action National Disability Authority (NDA) National Council for the Blind of Ireland (NCBI) St Vincent de Paul Society (SVP)
<b>3rd Party Providers</b>	Opower TicToc The Green Way
<b>Other Industry</b>	Sustainable Energy Authority Ireland (SEAI)

### 7.2 Proposed Requirements

#### 7.2.1 Evaluation Criteria

CER set out the proposals for the evaluation criteria and processes for the consultation paper and invited views from respondents. These are based on the objectives set out by the Programme as well as the principles of the proposed Core Design.

#### Question 1:

Is there anything you would add or remove from these evaluation criteria?

##### 7.2.1.1 Response Summary

Generally the 12 respondents agreed with the evaluation criteria citing it was in-line with SSM with 8 respondents providing additional criteria or highlighting the importance

of criteria regarding the Consumer. There were no respondents who disagreed with the evaluation criteria.

### **Key Themes: Consumer Focused**

**SEAI** stated the emphasis should be on the consumer experience. A negative or even neutral experience will lead to poor engagement and little behavioural change.

**TicToc** agree with the criteria but believe a Community focused interface should be addressed.

**Energia** believe that while customer engagement is included in one of the criteria it is a key element of the whole programme and, as a result, should be included as a separate criterion.

**NCBI** stated while 'Consumer Focused' relates somewhat to addressing consumer needs, it does not sufficiently cover a commitment to addressing the needs of all consumers, who will have diverse needs and some of whom will have extreme needs.

**SVP's** view on consumer protection was to consider the impacts on maintaining energy supply and the ability to budget accordingly.

### **Key Themes: Additional Criterion**

**ESBN** proposed that additional evaluation criteria should be added entitled 'Adherence to Strategic Frame Work for Energy Usage Information Provision to customers'

**Airtricity** stated when evaluating the proposals, consideration must also be given to where costs will lie.

**BGN** believes that the "Irish Market Context" criterion needs to include the avoidance of the specification of proprietary requirements for the technology components of the Irish Smart Metering solution.

**NCBI & NDA** requested to add 'Universally Designed' as a criterion/referenced the universal design standards.

**The Green Way** requested consideration should be given to the requirement to allow third parties develop innovative solutions; Scalable should be considered in the context of "smart city/ town" development; Future proofed should allow for integration of iterative supporting.

#### **7.2.1.2 CER Response**

The CER welcomes the broad support for the evaluation criteria set out while acknowledging the additional areas referenced in responses. With regards to points around the level and nature of the consumer focus, this criterion is paramount in considerations and underpins the rationale for decisions made. This should cover issues around consumer engagement and impacts on uptake, as well as consumer

protection considerations. It is also recognised that this should acknowledge different types of consumer and their respective diversity of needs. The CER agrees that it is also important to bear in mind community level activities, but believes that this should be within the overall considerations of consumer focus and benefits.

Regarding additional criteria that have been suggested through responses, the CER agrees that there are valuable points made but believes that these should be covered within the existing criteria and approach. The strategic framework for information presentation is taken to act as a baseline for the development of all requirements and is based on fulfilling overall NSMP objectives. Therefore, it is not deemed necessary to include an additional requirement to reflect this.

The impact of where costs lie, if and where relevant, is taken into account within the overall consideration of Cost Efficiency associated with requirements. The Cost Efficiency criterion also considers the impact of requiring the development of proprietary solutions, which is also included within the consideration of the Irish Market Context.

Reference to universal design standards is made in procurement guidelines previously stated in the consultation paper and is justified based on the Consumer Focused criterion, therefore it is not felt that a further criterion is required for this. Also, the criterion “Scalable & Future-Proofed” should cover areas referenced around the ability for third-parties to be allowed to develop innovative solutions, the potential development of smart cities, and future proofing for integration.

### **7.2.2 Definition of Requirements**

CER set out the proposed requirements and invited respondents’ views in relation to each individual requirement, their alignment to the evaluation criteria and if there were any additional requirements we should consider or requirements that should be dropped with regard to:

- Smart Billing
- Mandated In Home Display (MIHD)
- Customer Web Interface (CWI)

#### **Question 2a:**

What are the respondents’ views in regards to the definition of each of the requirements?

#### **7.2.2.1 Response Summary**

There were 15 individual requirements outlined in the consultation for response. The tables below provide an overview of the responses.

Table 7: Smart Billing Requirements

Requirement	SBR01	SBR02	SBR03	SBR04	SBR05	SBR06
Comments	8	5	7	6	10	7
Yes/Agree	10	9	8	8	8	8
No/Disagree	0	0	0	0	2	0
No response	8	9	10	10	8	10

Table 8: Requirements Relating to the Provision of Consumption Information

Requirement	MIHDR01	MIHDR02	MIHDR03	CWIR01
Comments	10	7	8	11
Yes/Agree	11	9	9	12
No/Disagree	0	2	2	0
No response	7	7	7	6

Table 9: Requirements Relating to the Provision of Cost Information

Requirement	MIHDR01a	MIHDR02a	MIHDR03a	MIHDR04	MIHDR05
Comments	8	10	12	11	10
Yes/Agree	10	11	9	9	8
No/Disagree	1	2	4	2	3
No response	7	5	5	7	7

There were comments that related to all the requirements specifically regarding vulnerable consumers from **NCBI** who stated that for all requirements it is absolutely critical that vulnerable consumers who have specific communication requirements (for example, hearing impairment, vision impairment, intellectual or cognitive impairment, literacy/numeracy difficulty, or multiple impairment) receive information (and are communicated with) in a format accessible to their specific needs. This is already

partly covered in CER/12/081 Electricity and Gas Suppliers Handbook Section 8.5 Customers with additional communication requirements.

### **7.2.2.2 CER Conclusion**

As the above tables illustrate, there was broad agreement regarding the requirement definitions. In the following sections we have highlighted key negative comments/issues for discussion and some of the more generic comments which were raised alongside the agree/disagree responses.

This needs to be balanced in the context of the broad majority of supportive responses/comments. There were also a number of no responses.

### **7.2.3 Proposed Smart Billing Requirements**

Generally respondents were supportive of the requirements other than two specific disagreements with requirement SBR05: Hints and Tips.

#### **7.2.3.1 Response Summary**

##### **Key Themes: Presentation / Complexity**

A number of respondents have commented on the presentation of smart billing information and the need to avoid information being overly complex and difficult to interpret for Consumers.

**SVP** indicate that info should come in graphic form as standard, alongside numerical data. **NDA** and **NCBI** flag presentational requirements for disabled and vulnerable customers.

**Energia** and **Airtricity** cite that complex and/or large amounts of information on the bill should be avoided, and would be better placed on the CWI. Airtricity want the cost of supporting non-electronic billing considered.

**Electric Ireland** thinks for SBR4-5 suppliers should have discretion to determine the most appropriate way to present this info.

##### **Key Themes: Appropriate Channels**

**Airtricity** and **Energia** state this Hints and Tips information would be better placed on the CWI with signposting on the Smart Bill.

**SEAI** thinks SBR02-05 should also be available on the CWI.

**The Green Way** thinks all Smart Billing information should be available through all channels.

**Opower** thinks that the smart bill should be separate from the billing event

##### **Key Themes: Consumer Feedback**

The **National Consumer Agency** supports the provision of accessible information to consumers in an easy to read and understandable format. From the presentation of the focus groups findings (hosted by CER on 3rd October), consumers indicated a preference for a paper bill initially and saw it a means of engaging a consumer in the early stages of the NSMP roll-out. In the Agency's view, in order to have any meaningful impact on consumer behaviour, the smart billing information which is presented to consumers should show their usage patterns, clearly indicate the costs associated with their patterns and highlight the potential for energy use reduction and the potential cost savings.

### **Key Themes: Contact Info & Hints & Tips**

**Energia** state for SBR04 and SBR05, the MIHD must not contain contact information unless it is to contact the technical support team for the MIHD in the unlikely event of a fault. Moreover, the MIHD should not display anything other than the most basic of pre-programmed tips unless it is envisaged that ESNB would proactively transmit messages to the MIHD, via the HAN.

**Opower** state that there needs to be a minimum specification for hints and tips (providing suggestions), leaving opportunity for supplier differentiation.

**PrePayPower** cannot support hints and tips as not well defined – asking the question of whether hints will be tailored for specific consumers or generic.

### **Key Themes: Prepaid Plans**

**PrePayPower** have raised a number of issues specific to customers on prepaid plans, including the scope for monthly reports for prepayment customers receiving an annual bill.

### **Key Themes: Benchmarking**

**Opower** seemed to misinterpret the CER position, but wanted to introduce minimum standards and guidelines for benchmark comparisons and offered development support

#### **7.2.3.2 CER Response**

The CER welcomes the support shown in the main for the proposed Smart Billing requirements. In response to concerns raised regarding presentational aspects, the CER maintains the view that requirements should focus on what information should be presented rather than specifying how it should be presented so that there is room for competitive innovation in this area. However, it agrees that there is a need to consider disabled, impaired and vulnerable customers and therefore that Universal Design principles should inform the procurement process where practical.

The CER also agrees that consumers should not be overloaded with information through the Smart Bill but does not believe this to be the case with the requirements

proposed. The CER also maintains that the Smart bill is the most appropriate place for this information to be shown based on strategic drivers. Similarly, it will not be mandated for this information to be replicated on the Harmonised Downloadable File or the Mandated IHD.

In particular, with regards to SBR05: Hints and Tips, trial and focus group evidence suggests that this is key in helping consumers understand how they can change their behaviour and therefore it should be on the Smart Bill where it is most accessible to them. This requirement will not be further defined and minimum requirements will not be set so that there is the opportunity for competitive differentiation.

While it is recognised that there are costs associated with non-electronic billing, it is felt that consumers should be able to receive the Smart Bill in the format that they prefer to maximise the Customer behaviour impacts associated with it. The CER also maintains that the whole Smart Bill (i.e. the bill and the additional billing information) should be delivered in one event simultaneously rather than split out.

With regards to PAYG Customers, the CER can confirm that frequency of billing should be in line with EED requirements stating that billing information should be made available at least quarterly on request or where the consumers have opted to receive electronic billing, or else twice yearly.

On benchmarking information, the CER will not be developing minimum standards or guidelines at this stage to allow the market to develop their own solutions. However, it reserves the right to review position.

The proposed decision on Smart Billing can be found in section 3.3.

#### ***7.2.4 Proposed MIHD Requirements***

Generally respondents were supportive of the requirements but with some disagreements regarding the provision of historical information on the MIHD for comparison.

##### ***7.2.4.1 Response Summary***

#### **Key Themes: In Home Display Key Functionality**

**ESBN** stated the MIHD is the primary information source for real-time information in the absence of an alternative and as such it should only provide cumulative information for the day in question as this information is not available anywhere else. Cumulative information for other periods – current week and current month should be taken from the supplier smart bill/web interface.

As the primary information source for real-time information the MIHD should not provide historical energy consumption information for previous days, weeks or months as this information can be taken from the supplier smart bill/web interface.

**PrePayPower** noted that the specific definition of cumulative usage is particularly specific. They suggest that such level of prescription be excluded from the requirements, as it may hinder procurement. They also state that if their keypad was discovered to almost deliver the defined requirement, yet was able to deliver on more complex nice-to-have requirements, such as cost information into the home, then flexibility would be lost to maintain the existing infrastructure at lower cost to the consumer.

More generally, they suggest that this requirement should not drive the procurement of the device by driving implementation costs or restricting competition in supplier or off the shelf availability of suitable products. Depth of cumulative information should be an evaluation criterion, but not a must-reach standard for consideration.

**SVP** agreed that the time periods which are available to the consumer for cumulative comparisons should be available for past period comparisons. It is believed that this is achievable without putting undue cost implications on the MIHD.

**Electric Ireland** stated MIHDR03 is not required as it will be provided by the suppliers Web Interface.

**SEAI** stated MIHDR03 should also be available via the consumer web interface

Whilst **PrePayPower** did not disagree nor did they agree with any of the above requirements they agreed with the analysis that this requirement is dependent on the TOU analysis and the technological complexity on getting the tariff onto the display.

### **Key Issue: Data Protection for Historical Information Post COLE**

**ESBN** highlighted the significant issue with DP and presentation of historical data after a COLE as follows:

*“In section 2.5 where customer interactions with the information channels are shown, the interaction with the IHD is shown as being on a daily basis. If historical data is kept to ‘same day’ only then will no data protection issues arise with the IHD. There are 250k-350k Change of Legal entities each year in the electricity industry. CER will have to come up with new or amended market processes to deal with this issue if the IHD is full of historical personal data. Given the volumes of such processes there is likely to be a considerable cost to the industry and ultimately the customer. Furthermore ESB Networks are concerned that a decision to provide a mandated IHD full of personal historical information and a requirement that this is then wiped off during a COLE process could expose us to potentially be in breach of data protection regulations if, for example, the IHD was not switched on or out of range and therefore we could not communicate with it when the COLE process happened.”*

### **Key Themes: Ambient Feedback**

**Energia** questioned this feature and ask whether it is a key feature of the MIHD?

**PrePayPower** stated there is no data to support that ambient feedback has an impact on customer behaviour when linked to consumption or tariff. They have witnessed energy savings in excess of smart metering trial results with no ambient feedback from their keypad, providing direct evidence that ambient feedback based on consumption is not necessary to achieve energy reduction savings. While they have no similar evidence for tariff based ambient feedback, neither, they feel, has specific evidence been presented that it is an important part of the functionality of the IHD. They therefore suggest that this – like the level of specification of the cumulative and historical information, becomes an evaluation criterion for an IHD rather than a pass/fail criterion. Requirements such as ambient feedback may unnecessarily impact the procurement of the device.

### **Key Themes: Tariff & Price Information**

**Energia** disagreed that an MIHD is the most suitable vehicle for this data.

Whilst **PrePayPower** neither disagreed nor agreed with any of the requirements, they did agree with the analysis that this requirement is dependent on the TOU analysis and the technological complexity on getting the tariff onto the display.

**BGN** raised the point that this requirement is stated with reference to customer benefits of the display of electricity tariff banding linked to the ambient feedback and the price per band. From a gas perspective, should gas TOU tariffs be introduced by suppliers, BGN would favour the proposed SSM model approach of providing this information to consumers via supplier media channels rather than over the Smart AMI.

### **Key Themes: Cost Information**

We capture some of the more generic comments on cost presentation against questions 5 & 6 later in the document (see section 7.3)

**PrePayPower, Energia and Airtricity** all cited the dependency on a decision being made regarding price/tariff data being available and the potential complexity of an automated solution.

**Energia** also stressed that any data provided on the MIHD cannot be of billing quality and, as a result, questioned the overall benefit of it to the customer.

**BGN** stated there is no evidence to suggest that the provision of accurate tariff and price information is a key driver for change. Indicative pricing will be sufficient.

**Energia** stated that a past period cost comparison is meaningless if a customer's current tariff is different to the previous period.

## **Key Themes: Alternative Means**

**Tictoc** believe the MIHD should/can be linked to a gateway to allow information to be processed over the web. They also state they propose to test their ambient feedback interface in trials in 2014. This will need to be collaborated with the users' tariff structure in a fool-proof manner.

**BGN, Electric Ireland and TicToc** all cited suggestions that there are more appropriate ways to view energy usage information over the internet.

### **7.2.4.2 CER Response**

The CER appreciated the feedback received regarding MIHD requirements and takes on board some of the challenges to the proposed requirements.

Regarding the presentation of cumulative consumption data, the CER maintains that the MIHD should show this information for the last week and month as well as the last day as this helps to give consumers a context for their instantaneous energy use and fits with the strategic drivers for the MIHD. It is not felt that this information would be as effective if shown on the web or Smart Bill and it is believed that this is an important requirement that should be mandated.

The CER has revisited its minded-to position regarding the presentation of historical information so that it is no longer a requirement on the MIHD. This should enable a simpler and cheaper device as well as allowing for more competitive innovation in the provision of this type of information. Now that historical information is no longer proposed on the MIHD, issues highlighted around the presentation of historical data after a Change of Legal Entity are no longer relevant.

While the CER recognises views expressed on the value from ambient feedback, it maintains its belief that this is a useful tool for shifting consumption on the basis of TOU bands. In terms of cost-related information on the MIHD, the CER recognises that its importance has been demonstrated in trials and focus groups, as well as consultation responses. Therefore the MIHD will have the capability to show cost information on an instantaneous and cumulative basis. As this data will not be available via the metering infrastructure, a feasibility study conducted by ESNB in 2014 will investigate alternative options for automatic update of this information.

The CER agrees that it is important to consider alternative means of presenting some of the information required on the MIHD. There will be an expectation on suppliers to utilise these alternative means (such as smart and web-based approaches) in certain circumstances where Customers have opted for non-standard TOU tariffs.

The proposed decision on the Mandated IHD and associated rationale can be found in section 5.

## **7.2.5 Proposed CWI Requirements**

There were 12 responses to this requirement all of which agreed with the requirement with 2 caveating their agreement with the preference to deliver the service. Note that the provision of the service is further elaborated in section 7.4.

### **7.2.5.1 Response Summary**

#### **Key Themes: Responsibility for Service**

**ESBN** - Agrees that the customer should have the ability to access their half hourly interval consumption data on request via the internet. It should be provided to them in a standard harmonised format to enable them to analyse or share the interval data with an alternative Supplier or 3rd Party (subject to the consumers consent) offering other services. ESB Networks believes that this service should be provided by Suppliers only, in line with their present market role & reinforced in the Steady State Model consultation paper. (This is further elaborated on in response to CWI – Provision of Data).

**PrePayPower** stated they support a mandate for networks to provide this data, with suppliers providing this data as a development of their own systems. They questioned why the requirement is mandated twice.

Other comments **from Airtricity** stated they wished to seek clarification in the decision that a supplier will only have to provide historical information based on the duration of time the customer has been with them whilst **SEAI** stated all data provided from the Customer Web Interface should be on the meter.

### **7.2.5.2 CER Response**

The CER welcomes respondents' views regarding the provision of the Customer Web Interface and welcomes support of the basic requirements. While it recognises the mixed views regarding who should provide the interface, the CER maintains its position that it should be provided by both Networks and Suppliers.

The CER can clarify that the provision of data will be for at least 24 months or from the start of the Supply contract whichever is sooner. This obligation will discharge the relevant obligations of the Energy Efficiency Directive.

The proposed decision on the Harmonised Downloadable File and associated rationale can be found in section 4.

### **7.2.6 Impact Assessment of the Different Options in Terms of the Evaluation Criteria**

There were no agree/disagree responses, just a number of general comments raised against the question.

#### **Question 2b:**

Please provide your views on the relative impact assessment of the different options delivering each requirement in terms of the evaluation criteria.

#### **7.2.6.1 Response Summary**

##### **Key Themes: General Comments**

**Aitricity** stated the costs to maintain non electronic billing should form part of the consideration in reaching a decision on what information to require.

**BGE** raised questions on the viability of the MIHD in general with a 2 year lifespan

**SEAI** raised the point that presentation of cost and Prepayment information should drive the solution for SSM & PAYG.

**Energia** noted that MIHD requirements can be delivered on the CWI and the MIHD requirements are adding cost for customers.

**ESBN** stated the presentation of historical information on MIHD introduces cost to provide information reliably and to resolve the data protection issues post COLE.

**ESBN** also stated duplicating supplier & network CWI provision will introduce additional cost.

**Aitricity** and **PrePayPower** have flagged the need to consider transitional arrangements to the smart bill, including clarity around the transition to TOU tariffs and the need to educate Customers.

#### **7.2.6.2 CER Response**

The CER is grateful for respondents' views on the relative impact assessment of different options.

These views have been taken into account in the evaluation of requirements and in the relevant proposed decisions.

### **7.2.7 Additional Requirements**

Some respondents gave direct feedback to the question and others offered alternative requirements as general comments. Broadly the requirements presented were deemed sufficient.

#### **Question 2c:**

Are there any additional requirements that should be considered or any proposed requirements that should be dropped, please provide rationale and assessment?

#### **7.2.7.1 Response Summary**

**BGE** stated that cost information should be available on the MIHD however it is vital the Customer understands it is indicative proposing that an advisory message would be helpful to reinforce the education process.

**Energy Action** proposed the ability to store three months' worth of data locally on the meter with a granularity of 10 seconds.

They stated if data is held on the meter it would not add to the network traffic but could be accessed directly from the meter, maybe using a Bluetooth connection, or on a case-by-case basis by logging in remotely to the meter.

Additionally they propose a temperature recording element in both the smart meter and in home display should be included. The rationale being that, for the majority of cases, the meter is external and the in home display will be in a living area. They feel the difference in these 2 values will give valuable insight into the thermal performances of buildings as well as helping to understand how these factors impact on energy usage.

**ESBN** stated the requirements for real time information are addressed only in the context of a particular temporary device i.e. the MIHD. It would have been worthwhile to define the requirements in terms of the persistent real time information data for that particular channel which could include MIHD, other IHDs or equivalent rather than focus on a single device.

**SEAI** stated PAYG information and Budget setting capacity on the MIHD should also be a requirement. Micro generation information should also be facilitated [and suggested it should be facilitated through all channels].

**The Green Way** stated the long-term view is that third parties (technology providers) will develop solutions for an alternative IHD or a similar device that will support consumer engagement. It is crucial that the functionality of the AMI supports the integration of third party devices i.e. is future proofed to allow "new" IHDs to interact with HAN in a way that provides the consumer with intelligent information that engages them and ultimately supports energy (gas & electricity) reduction.

### **7.2.7.2 CER Response**

The CER welcomes respondents' views on additional potential requirements. Suggestions around cost on the MIHD are dealt with in sections 7.2.4 and 7.3. Also, the decision to have a Mandated IHD has already been determined and was not part of the scope of this consultation to open up for discussion.

Regarding the ability to store data on the meter, this is dealt with as part of consideration of the appropriate metering infrastructure. The CER recognises that there may be benefits associated with showing PAYG information, having a budget-setting capacity, and being able to record temperature on the MIHD. However, while these are considered to be nice-to-have options in the procurement, they are not considered to be important enough to the strategic objectives for the MIHD to warrant the additional potential costs that might result from including them as mandated items. Information related to Micro-generation is dealt with later in section 7.5.

Functionality in the AMI to support further third party devices is being addressed as part of wider considerations in the next phase of the NSMP.

In relation to the availability of more granular consumption information and the development of third party products within the home, the MIHD requirements only specify the information to be displayed. It does not consider the constituent elements (i.e. granularity of data) from which that information is taken. This will be reviewed in the subsequent stages of the NSMP

These views have been taken into account in the evaluation of requirements and in the relevant proposed decisions.

### **7.2.8 MIHD Refresh Rate**

There were ten responses to this question, three of which felt it was too early in the development process and not appropriate to answer it. However, of the eight that provided their view, five thought that as near real-time as possible is required.

#### **Question 3:**

What would be the least frequent level of data refresh that would be appropriate in order not to adversely affect the ability of the consumer to control their energy consumption effectively?

#### **7.2.8.1 Response Summary**

##### **Key Themes: Real-Time Feedback**

**SEAI** stated as near real time as possible however consideration should be given to the impact energy consumed by IHD.

**TicToc** stated the MIHD should be updated every second.

**Electric Ireland** stated the industry standard used in the UK market is six seconds and they would support this level of data refresh.

**NCA** raised the point that consumers expect the near ‘real-time’ data display of their usage on the MIHD, seeing this feature as an educational tool to allow them to learn the cost implications of their energy usage and specifically in relation to tariff bands. The Agency, mindful of cost, would therefore recommend as close to ‘real-time’ display as is possible.

**PrePayPower** stated determining the usage of different appliances requires fast feedback in the order of ten seconds.

**Airtricity** had a view that whatever refresh period is chosen, it would be helpful to display the “duration since last refresh” so that the consumer can understand the freshness of the data displayed. A more frequent refresh rate is preferable, perhaps every five minutes.

**Energia** stated this is a complex topic and, again, it must question the overall role of the MIHD, i.e. is it to provide cost information to the customer or help them reduce their overall consumption? The answer to this may help determine the frequency at which the data is refreshed.

**BGN** stated that the gas consumption and cost information should be updated on a half-hourly (HH) basis. This represents a reasonable balance between providing gas customers with as “near” real-time data, and maximising the battery life of the gas smart-meter. **PrePayPower** also cite that half-hourly update is sufficient for gas.

**ESBN** agreed with the requirement “to present the consumer with their instantaneous level of electricity demand in kW, in as near real-time as possible”. However, they feel it is premature at this stage to prescribe a specific time and could be interpreted as bias in favour of particular products in advance of decisions on technology and the delivery of the full suite of requirements. **BGE** also stated it did not think it was appropriate to consider this question at this stage.

#### **7.2.8.2 CER Response**

Taking into account the respondents views CER have concluded it is too early at this stage to determine the refresh rate for gas or electricity data onto the MIHD, as we do not yet know the HAN technology or availability of data from the AMI. This will continue to be developed in the next phase of the NSMP. It is noted however that half-hourly refresh for gas and refresh rates in the order of ten seconds for electricity seemed to be the general preference in consultation responses and would align with similar international models.

The proposed decision on the MIHD and associated rationale can be found in section 5.

### **7.3 MIHD Presentation of Cost Information**

CER set out the requirements for the presentation of cost information on the MIHD to be considered separately and asked for views in relation to those requirements on the presentation of cost/price and tariff information.

CER proposed some potential options for how price/tariff data may get onto the MIHD based on the options being considered in the SSM. Additionally CER sought views on consumers being asked to update price/tariff information.

As an alternative CER also sought views on the provision of additional devices provided by suppliers for their Customers on alternative tariffs.

#### **Question 4:**

What are the respondents' views in regards to the definition of each of the potential requirements for display of cost and price/tariff information on the MIHD?

#### **Question 5a:**

What are the respondents' views in regards to the display of cost and price/tariff information on the MIHD for the options described?

#### **Question 5b:**

Is it a viable option for consumers to be asked to update price and/or time band information?

#### **Question 5c:**

Would it be appropriate to expect suppliers to provide an alternative device to consumers who opt for alternative tariffs?

#### **7.3.1.1 Response Summary**

There was general acceptance of the benefits of presenting cost and the need to do so. Respondents were in agreement with the requirement definition, except **PrePayPower** challenging ambient feedback.

However, there was great variation between respondents on how price/tariff data should be sourced, whether customers can update information robustly on the IHD. There was recognition of the need to consider this in light of the overall solution.

There was a 5:7 split on whether it is a viable option for consumers to be asked to update price and/or time band information with various contradictory evidence/rationale between respondents which will need further consideration with SSM.

Five Suppliers responded that suppliers should not be expected to provide an alternative device to consumers who opt for alternative tariffs. **SEAI** stated that Suppliers should offer an alternative device and **TicToc** stated that Suppliers or 3rd parties should offer alternative devices.

**SEAI** raised concerns that the proposal omits cost and pricing information from 3 out of the 4 options and completely omits it from the SSM. SEAI raised points on the use of Dutch and Sacramento trials in rationale.

### **Key Themes: Indicative Cost**

**EAI** stated indicative pricing or ambient price signals are the preferred method for sharing cost signals on the IHD.

**BGE** also noted that the cost should only be indicative and not bill quality and it is vital that the Consumer understands that this is the case.

**BGN** stated that they see there is merit in consumers having visibility of cost implications of gas consumption in the home. It is unclear to BGN however how relevant actual bill quality cost information versus indicative pricing in the home is in altering consumption patterns. It is unlikely that BGN would be able to meet potentially onerous SLAs if cost in the home is required to be anything more than indicative for the consumer, given difficulties in guaranteeing delivery across a large estate of shipper Customers for a given cost implementation date.

### **Key Themes: Options for Presenting Cost Information**

**SEAI** proposes data is sent via the AMI (option 1).

**Energia** restated the importance of mandating information rather than a device, while recognising that there are potential benefits from sending cost data from the metering infrastructure to the MIHD for a period of time, either through market messages or another robustly designed solution. They are completely opposed to suppliers bearing the cost of providing customers with information to align with more complex products & services.

**Airtricity** proposes a fully secure method of sending price/tariff information to the MIHD and also state that if suppliers are mandated to open up their systems to 3rd parties then the Data Protection risks are increased.

**BGN** thought that the three options are not practical and price/tariff data should be updated by the Consumer only.

**BGE** stated ESNB are responsible for sending the data, but this should not be via the AMI.

**Electric Ireland** stated they did not accept any of the proposals and did not provide any alternatives.

**PrePayPower** concluded that cost information is either managed seamlessly by the technology (over AMI under AWA or supplier Internet under SSM), or facilitated by the Customer in a manner which renders error impossible (requiring bespoke technology), like PrePayPower's product where the customer enters a code, validated by the

device, containing tariff information (under SSM). PrePayPower stated their general support for the SSM over AWA option.

### **7.3.1.2 CER Response**

The CER appreciates the different feedback received on this complex issue. As stated previously in section 7.2.4, the role of cost-related information on the MIHD is seen as important to its ability to impact Customer behaviour. Therefore the MIHD will have the capability to show cost information on an instantaneous and cumulative basis and a feasibility study will be conducted by ESNB in 2014 to investigate alternative options for automatic update of this information.

The proposed decision on the MIHD and associated rationale can be found in section 5.

## **7.4 Customer Web Interface: Provision of Data**

CER set out the proposed options for access to data for 3<sup>rd</sup> parties and invited views, as well as seeking views on the 'minded to' position for the customer to provide access to the data and pass onto a 3<sup>rd</sup> party.

Views were also sought on their proposals regarding who should be the responsible parties to provide a national harmonised format to consumers and if there are any alternative options that should be considered.

In addition, views were welcomed on whether there should be guidance or a regulated process on how the consumer requests their data and what length of time is acceptable for the consumer to wait to receive their data.

The provision of energy usage data to the consumer is required to be in a national harmonised format, CER invited opinions on what the most appropriate format should be for the data provision.

### **Question 6a:**

What are the respondents' views with regards to the options for access to data for 3<sup>rd</sup> parties and minded to position for the Consumer to access and pass on this data?

### **Question 6b:**

What are respondents' views on the options and minded to position for who is best placed to provide the national harmonised data to Consumer?

### **Question 6c:**

Are there any alternative options that should be considered, please provide rationale and assessment?

### **Question 6d:**

Should there be guidance or regulation on how Consumers are told that they request this data (e.g. if a Customer contacts a supplier for data, should the supplier notify

Customers they can get data from networks beyond start of contract and/or export data)?

**Question 6e:**

What would be the longest period that it would be appropriate for a consumer to wait to receive data through the web interface?

**Question 6f:**

What would be the most appropriate national harmonised format for the data download?

#### **7.4.1.1 Response Summary**

Eight respondents agreed that data should be provided to the customer and only one respondent requested direct access for 3<sup>rd</sup> parties.

The question of who is best positioned to provide CWI provided a mixed response and was segmented by respondent type. Four respondents (2 networks, 2 suppliers) stated their preference for a supplier provided service; two respondents (SEAI & 1 supplier) stated their preference for a network provided service and two respondents (2 suppliers) stated their preference for the service to be provided by both parties.

The additional cost of providing CWI by both networks and suppliers was noted and **TicToc** requested a level of community or national supply demand ratio.

#### **Key Themes: Data provided to 3<sup>rd</sup> Parties via Customer**

**BGE, Electric Ireland, EAI, ESBN, Energia, PrePayPower, Airtricity, BGN** all agree with the proposed position.

**SEAI** state there should be a secure, but easily understandable, process for the Customer to grant the right to a 3<sup>rd</sup> party to access the data on their behalf.

**ESBN** agreed that the correct option of providing data to 3<sup>rd</sup> parties is for the Customer to access their own data and then pass on this data to third parties. This approach will address any data protection issues, as well as removing the requirement for costly & complex access requirements for authorised licensed third parties

**EAI** stated the EAI Retail WG has a concern that third party requests may place additional costs on the industry that provide no additional value to customers and requests that the CER restricts the requirement for suppliers to provide consumption data to their customers and not to third parties.

**EirGrid** strongly believes that access to customer data should be made available to third party Service Providers on the same basis that it is to suppliers.

**The Green Way** stated that it important that third parties, once they have authorisation from consumer, should be allowed to access consumer data in a secure manner.

### **Key Themes: Who Provides the CWI?**

**BGE & Energia** agree with the proposed position of a supplier & network provided CWI.

**Electric Ireland, ESBN, Airtricity, BGN** believe it should be supplier provided and make the point that this relates back to the strategic driver of the supplier-customer relationship. ESBN also note that the supplier service would deliver EU obligations and that a network service would be significant additional cost for a new system with no demonstrable benefit.

**SEAI & PrePayPower** believe CWI should be provided by networks, with PrePayPower saying that web-services should be developed independently by suppliers and **SEAI** requesting data to be held on the meter.

### **Key Themes: Time to Receive Data from CWI**

**BGE, Electric Ireland, EAI, ESBN, Energia, Airtricity, BGN** all stated they believe it is too early to consider this question.

**SEAI** stated it should be on demand with no appreciable delay.

**TicToc** stated the data provision should be instantaneous.

**NCA** are of the view it has to be within reasonable timeframe.

**PrePayPower** stated that ideally it should perform as you would expect for browsing data online with Customer account details.

### **Key Themes: National Harmonised Format**

**BGE, Electric Ireland, ESBN** all stated they believe it is too early to consider this question.

**SEAI, TicToc & PrePayPower** all suggested CSV as a standard format which is commonly used in industry.

**BGN** suggested xml citing 'The Green Button' initiative used in the US as an example which could be developed for Ireland.

**Energia** had no preferences stating they thought it was not important but needed to be consistent across industry.

#### **7.4.1.2 CER Response**

The CER welcomes the different views expressed regarding the provision of this requirement and recognises the importance of a supplier provided service as well as the potential for some further costs to be incurred from having both networks and suppliers providing the service. The CER also agree with the views expressed that only consumers should have access to this data directly. The proposed decision, with

associated rationale, on the issue of who has responsibility for providing the consumer Web Interface can be found in section 4.3.

The CER also welcomes comments regarding the time to receive data from the CWI and the nature of the national harmonised format. These will be taken into account in subsequent phases of the NSMP.

## **7.5 CER Minded to Review**

CER set out their proposal to review benchmarking as a requirement at a later stage, with the expectation that this should develop in the open market, and asked for views regarding not regulating this at this stage.

The requirements for micro generation are not clear at this stage in the programme thus CER are minded to review at a later stage. The CER sought views on micro generation and the potential options.

### **Question 7a:**

What are the respondents' views in regards to not regulating for benchmarking at this stage, but expecting this to happen in the open market and to review and revisit this in the future?

### **Question 7b:**

What are the respondents' views on the presentation of micro generation information to the Consumer? What are the options?

#### **7.5.1.1 Response Summary**

##### **Key Themes: Benchmarking**

**Opower, TicToc, BGE, Electric Ireland, Energia, PrePayPower, Airtricity, BGN** all agreed with the proposed position not to regulate benchmarking with **Energia** stating that if benchmarking is regulated in the future then only introduce minimum requirements if needed.

**Opower** interpreted the CER position incorrectly, but wanted to introduce minimum standards and guidelines for benchmark comparisons and offered development support.

Only **SEAI** believe that benchmarking should be regulated.

##### **Key Themes: Micro-generation**

**Airtricity, BGE and Energia** agreed that the presentation of micro-generation information should be kept open for review.

**PrePayPower** stated data presented should be simple and cumulative in nature.

**Electric Ireland** would support the presentation of micro generation information via a web interface.

**SEAI** state that renewable electricity should be recorded by the meter infrastructure and provision should be made to display them on the IHD, Smart bill and web interface

**TicToc** stated Micro generation needed to be defined by the CER, and can the concept be scaled to a community level.

#### **7.5.1.2 CER Response**

The CER welcomes the broad support for its proposed positions on the provision of benchmarking and micro-generation information. While recognising those differing views that were expressed, the presentation of information needs to reflect what is available from the AMI in the Core Design. The CER does not believe any responses offer significant reason to influence its proposed decision.

The proposed decision on benchmarking and associated rationale can be found in the Smart Billing section of this paper (section 3.3).

### **7.6 Other Policy: MIHD Support**

The MIHD will be installed by ESNB who will then provide maintenance and support for 2 years. CER invited views as to whether this time period is appropriate.

Related to the 2 year support and maintenance decision CER also sought views regarding options for supporting the provision of energy usage information in the home post the mandated support period for the MIHD.

#### **Question 8a:**

What are your views with regard to a 2 year support and maintenance period? Should the MIHD be supported for a shorter or longer period of time? to a fixed date? Please provide reasons.

#### **Question 8b:**

What are your views with regard to options for supporting the provision of energy usage information within the home post the mandated support period of the MIHD?

#### **7.6.1.1 Response Summary**

##### **Key Themes: 2 Year Support**

**TicToc, The Green Way and BGN** state they believe that 2 years support is adequate. BGN note that, with usage and wear and tear within the home, the “life expectancy” of such devices is likely to be limited. BGN believes that platforms other than the MIHD should be the preferred channel for provision of information within the home.

**BGE** stated that ESNB should be required to support the MIHD until such time as the TOU tariff mandate is lifted.

**SEAI** stated that at a minimum the MIHD should be supported from the time of installation to at least 2 years after the introduction of Time of Use tariffs.

**Aitricity** believes the MIHD should not be rendered obsolete by policy direction and that at this time no short term limit should be placed on the device.

**Energia, Electric Ireland ESNB & PrePayPower** all link the support period to other policy and design issues/decisions, including the link to TOU implementation, questioning the mandate for IHD generally, MIHD roles/ownership, MIHD lifetime and the entire end-to-end roll out of the programme.

### **Key Themes: On-going Support of Energy Usage Information Post Support Period**

**SEAI, TicToc, ESNB, Energia, PrePayPower, Aitricity** all highlight the criticality of the ongoing provision of this information. **SEAI** go further in wishing to ensure information is stored on the meter / meter infrastructure, as highlighted elsewhere.

**BGN** believes that platforms other than the MIHD should be the preferred channel for provision of information within the home.

**Electric Ireland** questioned the mandate for IHD generally.

#### **7.6.1.2 CER Response**

After taking into account the respondents views on the length and arrangements for the 2 year support and maintenance CER retains its position that ESB Networks will provide and support the Mandated IHD for 2 years after its installation date (i.e. repairing or replacing faulty devices). This may be subject to review when considering transition / implementation and the timing of the default TOU.

### **7.7 Other Policy: Frequency of Billing**

The CER left the frequency of billing open in the CER July Decision Paper and intend to review in the transposition of the Energy Efficiency Directive into Irish Law. CER invited views on the benefits to consumers of the frequency of informative billing and if this should be 'not less than' or 'not more than' or specific where smart meters are installed.

#### **Question 9:**

What are your views on the benefits to Consumers of the frequency of informative billing? Should this be 'not less' or 'not more than' per Customer type or should it be specific where smart meters are installed e.g. monthly?

### **7.7.1.1 Response Summary**

There was broad agreement on leaving the frequency of billing to the market citing cost as the main issue for Suppliers.

**BGE, TicToc, Electric Ireland** indicated that the frequency of billing should be left to the market to capture Customer preferences.

**SEAI, Electric Ireland, BGN, Airtricity** flagged the cost impact of increased billing frequency, distinguishing between e-billing and paper billing. Broadly, e-billing can take place more frequently as it does not result in (much) additional cost. Airtricity is also concerned about the costs of frequent billing in general - if it is for the purpose of providing additional info.

**BGE** noted calendarisation of billing periods may enhance the potential for demand reduction.

**SEAI, NCA** highlighted monthly billing as the best option in terms of encouraging consumer to change their behaviour. SEAI noted that paper billing has a cost impact if billing frequency increases.

**PrePayPower** stated a preference for a yearly prepayment statement requirement.

**Energia** said it was too early to comment.

### **7.7.1.2 CER Response**

The CER have concluded that the Billing frequency will be left to the market, as set out in the July decision paper and the expectation is that PAYG customers should receive smart energy information at the same frequency as credit customers; in line with EED requirements stating that billing information should be made available at least quarterly on request or where the consumers have opted to receive electronic billing, or else twice yearly.

The proposed decision on frequency of billing can be found in the Smart Billing section of this paper (section 3.3)

## **7.8 Data Availability and Protection**

The CER sought views on the approach to Data Protection set out in the paper and invited views on any other Data Protection considerations that the CER should consider in relation to the requirements set out.

### **Question 10a:**

What are your views on the data protection approach set out?

### Question 10b:

Are there any other data protection considerations the CER should consider in relation to the requirements set out?

#### **7.8.1.1 Response Summary**

##### **Key Themes: Data Protection**

**Energia, NCA, Airtricity, BGE** pointed to existing DP laws or the DP Commissioner's role as providing an adequate framework for DP. Is it needed to have an in-depth DP approach given existing rules? BGE consider they are already compliant with DPC and will adhere to any future legislation set out. They do not have any wish for new policy.

**BGN** agreed with a proactive approach. Part of the approach should be to consider data protection aspects in evaluating different options for solving particular design issues. For example, of the 4 options presented for 3rd party access to Interval data, option A is a lot simpler from a Data Protection perspective and this should be a significant consideration in deciding on the preferred option.

**Tictoc** believe data protection is fundamental from the outset of the roll out. Tictoc see data protection as an on-going role in the future and may need a structured body in the CER allocated solely to this.

4 respondents stated that there were no further DPC requirements to consider.

##### **Key Themes: Consent for 3<sup>rd</sup> Party Access**

**NCA, Airtricity** flagged issues around 3rd party access to information, suggesting it requires opt-in consent from customers (NCA) and potential issues for suppliers if they are mandated to provide information to third parties (Airtricity).

##### **Key Themes: Vulnerable Customers**

**NCBI** stated the current DP approach and any forthcoming decisions / procedures / guidelines should ensure that vulnerable customers and customers with disabilities are covered to the same extent as other customers and are not at a disadvantage.

##### **Key Themes: MIHD Historical Info at COLE**

**ESBN** raised the significant issue of data protection for historical data for a consumer post COLE.

#### **7.8.1.2 CER Response**

The CER notes the different views and concerns expressed with regards to data protection. These will be considered as part of that on-going work. With regards to the point regarding data protection issues related to historical data on the MIHD post COLE, this is no longer a consideration as the MIHD is not required to show historical information.

## **7.9 Programme Related Responses to Consultation**

### **7.9.1 Mandated IHD Roll Out**

**EAI Suppliers** remained concerned that a mandatory IHD may not represent best value for money. IHD is rolled out on a mandatory basis – this requirement must remain a responsibility of ESBN. Any roll-out that would place mandatory obligations on suppliers would be impossible to operate in practice, extremely costly and would be likely to result in an unsatisfactory outcome for consumers.

**BGE** agree with the mandating of providing information in the home but disagree with the IHD mandate questioning its value for money

**Airtricity** is of the view that the costs currently allocated to the IHD should be made available to develop alternative solutions for customers.

**Electric Ireland** believe that the business case for a mandatory IHD is not clear stating there could be better solutions now available and call for a review as a matter of urgency.

**Energia** Question the overall role of the MIHD

**ESBN** welcome the decision to review the approach to supporting a mandated IHD. ESBN are also of the view that now is appropriate to fully review with the industry the decision around the provision of a mandated IHD.

**Opower** urges CER to reconsider the IHD mandate and opt for a more flexible framework, where a variety of approaches can be implemented. For example, CER could consider the approach adopted by the UK, whereby the IHD is not mandated but 'offered' to the consumer.

**PrePayPower** questions the need for a universal roll-out of MIHDs in that context and why their Customers would need to pay for a second display device, particularly since their Keypads provide for the intent of the functionality of the proposed MIHD.

### **7.9.2 Design Issues**

**EAI Retail WG** requests that the CER take time to review the feedback that has been provided by stakeholders in this consultation alongside a number of key design issues that also need to be considered at this time. These additional design issues include:

- The plans and timing for the roll-out of the IHD and introduction of TOU tariffs
- The appropriate period of support for the mandated IHD
- Technical solutions for the provision of cost and tariff information to Customers in the period prior to commencement of the steady state phase
- Solutions to the provision of cost and balance information in the home to PAYG Customers that request this solution

- Transition arrangements from the MIHD to enduring solutions where suppliers and others may provide alternative solutions to the MIHD
- Examination of alternative solutions to a one size fits all approach where the IHD is rolled out on a mandatory basis

**Electric Ireland** recommends a detailed proof of concept phase, where processes and systems associated with all such options can be more rigorously evaluated for suitability over a longer term and feed in to the CBA.

**NDA** raised their concern in their response that there is little reference in the consultation paper to the design of the Mandated In-Home Display and how the information will be displayed

The NDA provided two reports for consideration in the design and procurement of the MIHD.

1. Guidelines on the universal design of IHDs
2. IHD Research Report

### **7.9.3 Home Area Network**

**ESBN** will need to provide on-going support for pairing of other devices to the Utility HAN. It is extremely important to the programme design that the HAN is designed so that parties other than networks can securely and efficiently access the information that is broadcast on the HAN. The protocol adopted should facilitate a cost effective solution that, to the extent that is possible, will be compatible with emerging technologies and standards that are being developed in this area. The EAI requests that a clear technical solution in this area is developed and agreed by the industry.

### **7.9.4 HAN Communications**

**Electric Ireland** think that the mandate ignores the fact that a significant percentage of locations in Ireland will not allow communication between smart meter and MIHD

**NCA:** Provision of information where MIHDs are not installed. With an estimated 20% of households deemed unsuitable for MIHD due to technical considerations, the Agency would suggest that any alternative solutions should be considered so that as many consumers as possible have the opportunity to benefit from the roll-out of smart meters.

### **7.9.5 Consumer Engagement**

**Energia** suggest that a mass education campaign should be run by CER

**Energy Action** suggest the use of Smart Meter Training programme delivered by Community, Voluntary and Community Based Organisations. To involve continuous engagement of home owners would be to provide a mechanism that would allow the

home owner to interact more easily with the data on the smart meter. Prevalence of smart phones and popularity of apps, then having an app to securely access your own data would be more likely to keep people engaged.

The Agency (NCA) would agree with the statement made by CER, in section 4.4.7, that “even at its most accurate, cost information is still indicative. Customers must be made aware that cost data on the MIHD is not of billing quality and therefore cannot provide a source to compare or contest a bill.” Consumers should be made aware of this from the outset.

#### **7.9.6 Consultation Feedback**

**SVP:** Feel that given the length of the consultation documents, their technical complexity, the short time scales for consultation and the general lack of resources in the NGO sector, they and colleagues representing vulnerable energy consumers are at a clear disadvantage in responding to and making best use of energy consultations and CER consultations in particular. Government and CER need to carefully consider how to best support and facilitate the voices and representatives of low income and other vulnerable consumers in a meaningful way. The use of concise, simple language in consultation documents could be an early achievement in such a process of meaningful engagement.