



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

**CER National Smart Metering Programme
Empowering & Protecting Customers**

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CER – Information Page

Abstract:

The National Smart Metering Programme is a plan for transforming how electricity and gas retail markets operate. The new systems and processes will provide customers with more accurate bills, better and more accessible information about energy use, and access to new tariffs and services. Consistent with maintaining a focus on delivering benefits for customers, the CER is reviewing and updating customer policy in order to be ready for these new developments.

This consultation focuses specifically on customer information and customer protection. It seeks views on how best to ensure that customers have ready access to the information they need, and on how the framework of customer protection might need to be updated to reflect changes to how retail markets will operate. The consultation also seeks view on how best to accommodate customers who are unable or unwilling to participate.

Target Audience:

This paper is for the attention of members of the public, the energy industry, customers, customer representatives and all interested parties

Related Documents:

- NSMP documentation is available on the CER website (www.cer.ie)

Consultation process

CER invites all interested parties: members of the public, the energy industry, and customer representatives, to comment on the questions raised in this consultation paper by close of business on Wednesday 23 September 2015. These responses will inform a Draft Decision paper planned for publication in November 2015.

Responses to this consultation should be returned by email (smartmetering@cer.ie), post or fax and marked for the attention of the Smart Metering Programme Office at the CER.

The CER intends to publish all submissions received. Respondents who do not wish part of their submission to be published should mark this area clearly and separately or enclose it in an Appendix, stating the rationale for not publishing this part of their comments.

Executive Summary

The National Smart Metering Programme (NSMP) is a plan for upgrading how electricity and gas retail markets operate, in order to improve levels of service for all customers. It is similar in nature to the move from analogue to digital in the markets for communications services.

The CER's decision to rollout electricity and gas smart meters for all residential and smaller business customers was announced in July 2012. This decision was made following comprehensive customer behaviour and technology trials and cost-benefit analyses, and in the context of the European Third Package Directive provisions for the rollout of smart meters in Member States to at least 80% of electricity customers by 2020 if there is a positive cost benefit analysis. The CER will re-run the cost benefit analysis in Q3 2016 with revised cost and benefit inputs, including to reflect updated policy settings, in advance of confirming the design to be implemented.

Consistent with maintaining a focus on delivering benefits for customers, the CER is reviewing and updating customer policy in order to be ready for these new developments. This affects a wide range of areas, including what tariffs are on offer, how billing and other information is provided to customers, and the framework for customer protection. The updated customer policy framework needs to provide appropriate levels of support and protection across all types of customers.

This consultation focuses specifically on the role of policy in keeping customers informed and protected, such that all customers are able to participate fully in the changes being implemented – thereby saving money on their energy bills, while at the same time making a contribution to the overall efficiency and resilience of Ireland's energy supply chain.

Context

The NSMP reforms to the services that customers receive are facilitated by ESB Networks (ESBN) and Gas Networks Ireland (GNI) rolling out new meters, and a supporting communications infrastructure, to all domestic and smaller business customers. This creates a technical platform for collecting detailed, accurate data, and for automating activities that currently require manual intervention and site visits.

The new technical platform and the associated changes to how retail markets operate will change fundamentally the services that customers receive, in three key ways:

- First, there will be much more information available on how individual customers are using energy, and this will in turn make bills more accurate.

Further, there will be flexibility in how these data are processed and presented back to customers. For example, through a display device in the home, or an application on a mobile phone – in turn giving customers greater understanding of and control over how they use energy.

- Second, it will make accurate billing of Time-of-Use Tariffs available to all. Currently, access to tariffs which allow customers to save money by using energy off-peak requires the installation of a special meter, and is limited to a relatively small number of customers with Day/Night Metering. It also increases the potential range and flexibility of such tariffs.
- Third, it will remove the technical requirement for a site visit in order to read a meter, or to disconnect or reconnect supply through a meter. The data can be collected remotely, and the instructions can be issued to the meter remotely. Further, it will remove the need for the installation of different metering equipment for customers moving to a “Pay-As-You-Go” tariff.

The new platform will also improve the quality of existing services. For example, an actual meter reading will be available almost immediately to calculate a bill (including for a closing bill when a customer changes Supplier). Hence, the risk of a customer being surprised by a high bill as a result of previous bills being based on estimates (or overpaying due to an inaccurate estimate that is not corrected until a later billing cycle) should be virtually removed. The new platform will also create opportunities to improve the quality of network services, and to monitor performance in respect of those services more accurately.

While the timetable for the NSMP means that customers will not see the impacts of these changes until towards the end of the decade, the policy decisions being made by the CER in the coming months will determine many aspects of what customers will experience once the technical platform has been procured, rolled out and switched on. The consideration of policy issues, in detail, at this relatively early stage in the process is a demonstration of the CER’s commitment to placing customers, and the realisation of benefits for customers, at the centre of the NSMP reforms.

Issues for consultation

This document seeks views on a range of issues relating to how best to support and protect customers, given the types of new services being introduced and the changes that implies for the customer experience. It focuses on three specific areas.

- First, **information provision**: How to set minimum requirements for the flow of information to customers about their energy usage and costs – in a manner that best supports awareness and understanding of how to save money, and engagement in the products and services that support this.

This document builds on the CER's previous decisions in this area, and sets out options for consultation, focusing in particular on how best to build understanding and awareness of energy costs and tariff choices initially.

- Second, **customer protection**. How to update the framework of measures to protect customers in respect of their dealing with energy companies – given the likely changes to how energy retail markets will operate. It identifies areas where the risk of customer detriment might appear to change, and seeks view on the materiality, and the options to address.
- Third, **customer participation**. How to accommodate customers who are not able or willing to participate fully in the upgrade to retail markets consequent to the rollout of smart meters. It identifies the factors that might influence participation, and the role of policy in circumstances where there is less than full participation.

This Consultation document forms part of a wider plan and schedule to mid-2016 for the CER's work on policy to support the Programme. The objective is by that date to have specified all the key policy settings required for successful delivery of the NSMP and effective, proportionate regulation **for customers** of the market arrangements that result. The schedule involves four document "releases" – through the course of which issues will be identified, options for resolution assessed, and decisions proposed and finalised. July 2015 is the second release of documents.

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1 Introduction

1.1 The NSMP

The National Smart Metering Programme (NSMP) is a plan for upgrading how electricity and gas retail markets operate, in order to improve levels of service for all customers. It is similar in nature to the move from analogue to digital in the markets for communications services. It is underpinned by a set of strategic objectives that relate to a wide range of features of the energy market, and how it serves customers. The strategic objectives are set out for reference in Appendix C.

The CER's decision to rollout electricity and gas smart meters for all residential and smaller business customers was announced in July 2012¹. This decision was made following comprehensive customer behaviour and technology trials and cost-benefit analyses, and in the context of the European Third Package Directive provisions for the rollout of smart meters in Member States to at least 80% of electricity customers by 2020 if there is a positive cost benefit analysis. The CER will re-run the cost benefit analysis in Q3 2016 with revised cost and benefit inputs, including to reflect updated policy settings, in advance of confirming the design to be implemented.

The CER concluded the High Level Design for the NSMP in October 2014². It is now progressing consultations on a suite of policy issues required to give practical effect to that High Level Design. This policy work forms one element of an integrated plan for the NSMP, alongside other work-streams led by ESB Networks, Gas Networks Ireland (GNI), and by electricity and gas Suppliers. There are also CER-led work-streams on Data Protection and Customer Engagement.

1.2 The purpose of paper

This consultation focuses specifically on the role of policy in keeping customers informed and protected, such that all customers are able to participate fully in the changes being implemented – thereby saving money on their energy bills, while at the same time contributing to the overall efficiency and resilience of Ireland's energy supply chain.

Specifically, the CER is seeking views to inform the following:

- The development of binding minimum standards on Suppliers, ESB Networks and GNI in respect of providing accessible and relevant

¹ NSMP Phase 1 Decision CER/12/008

² CER/14/046 (and the associated appendices)

information to customers on their energy usage – consistent with, and in support of, the proposed rollout of new services. See Section 2 below.

- Second, to identify whether and how to update the existing framework of customer protection, to reflect likely or potential changes to how electricity and gas retail markets operate consequent to the availability of more data and the introduction of new tariffs and services. See Section 3 below.
- Third, to consider the treatment of customers who are unable or unwilling to participate fully in the upgrade in how metering data are collected, and the choice of new services that such data provide for. See Section 4 below.

This paper is one of three complementary papers published by the CER, addressing different aspects of policy. The other two papers cover (a) how new services to customers, specifically Time-of-Use Tariffs and Smart Pay-As-You-Go, should be defined and introduced³ and (b) the regulatory framework for the transition activities of market participants⁴. For a complete view of the current stage of policy development, these three papers should be read together.

1.3 Responding to this paper

The CER invites all interested parties: members of the public, the energy industry, and customer representatives, to comment on the questions raised in this consultation paper by close of business on Wednesday 23 September 2015.

Questions are included in each of Sections 2, 3 and 4, and the complete set of questions is also reproduced in Appendix A.

As the CER will publish responses in full on the CER website, respondents should include any confidential information in a separate Annex, stating the rationale for not publishing this part of their comments.

Please forward submissions on this paper (preferably in electronic format) to:

Smart Metering Programme Office
Commission for Energy Regulation,
The Exchange, Belgard Square North,
Tallaght,
Dublin 24.

E-mail: smartmetering@cer.ie

³ CER/15/136

⁴ CER/15/ 138

2 Customer Information

2.1 Summary

In this section we set out options for defining the levels and forms of information that customers must receive (or have available to them) **at a minimum**. It builds on extensive work undertaken in the High Level Design, and is designed to complement further developments since then – including the Proposed Decision on the approach to making the transition to Time-of-Use Tariffs⁵.

The options are constructed in three stages. First, by identifying universal elements that would be common across all customers. Second, by identifying elements that might depend on the type of tariff or service a customer chooses to take. Third, by identifying elements which would be discretionary – with the provision of such information being driven therefore by competition between Suppliers and other service providers, and by the preferences and willingness to pay of individual customers.

2.2 Objectives

In framing these options there are five key influences, which collectively shape the objectives for this strand of policy work:

- Information provided to customers must meet minimum standards required in law, including those derived from EU Directives;
- The quality, relevance and timeliness of information provided to customers will have a significant impact on how customers change their behaviour – and hence on the overall success of the NSMP;
- The technology for communication, and the ways in which people use such technology, has changed rapidly over recent years – and this trend might reasonably be expected to continue;
- Different customers have different needs, in terms of the information they receive and the channel(s) they receive it through – and this, in part, will depend on their choices of tariffs and services. Further, these needs may evolve over time and be influenced by the experience and behaviour of others. Customer vulnerability, in some cases, may be an important consideration in this regard; and

⁵ CER/15/136

- Different formulations of minimum requirements will have different costs associated with them, and potentially differences in how those costs are recovered from customers (either individually, or collectively).

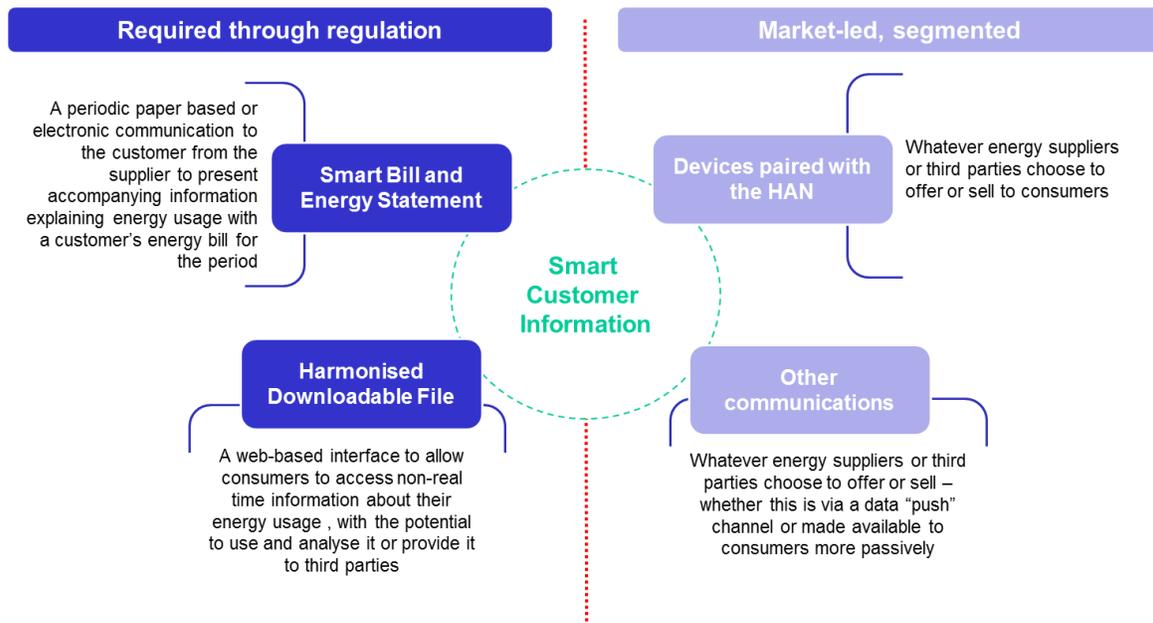
The objective of this consultation is to help inform the CER on which particular formulation of minimum requirements best serves the interests of customers, and strikes the right balance between costs and benefits.

2.3 Customers information – core elements

In this section we describe the basic building blocks that, in themselves, will radically improve the information available on energy usage and costs for all participating customers.

The improvements in the quality and usefulness of information being made to customers as a result of the NSMP will be driven by two factors. First, through the introduction of new minimum standards that all Suppliers must meet. These will be set in regulation. Second, by establishing a platform for competition and choice to drive new services for different customer segments. The combination of these factors is what will shape the experience of the end customer, and is summarised in Figure 1 below.

Figure 1: - The platform for improved customer information



This enduring model was proposed to be complemented in the short term by a requirement for EBSN to offer all residential customers a “Mandated In Home Display” (MIHD) and support it for a period of 2 years. Collectively, this provides customers with information in respect of consumption, price (tied in with the tariff), and cost: 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 customer is actually paying for their consumption.

2.3.1 Types of information provision

There are many ways in which information could be provided to customers, and what is useful and engaging will vary across customers and change over time. In the CER’s prior work on customer information we used a framework for categorising different forms of information provision, and the types of engagement they might support. This is summarised below:

- “KITCHEN WORKTOP” – high frequency reactive interaction (e.g. daily or intra-day), with little effort required by the customer. Example of this type of information are the fridge magnet used in the Smart Metering Trial and the MIHD.
- “ARMCHAIR” – a medium frequency/periodic interaction (e.g. bi-monthly). Slightly more customer effort needed to analyse the data provided, but remains reactive, e.g. triggered by the receipt of a Smart Bill and Energy Statement.
- “DESKTOP” – a lower frequency interaction (e.g. when looking to move tariffs). Requires the customer to proactively download information (e.g. the Harmonised Downloadable File) and the analysis may be more involved.

Under the High Level Design there are two broad timeframes for latency of the data made available to support the provision of information to customers:

- First, “**previous day**”. Meters are expected to be polled overnight, with the data made available to the relevant Supplier at some point during the next day. This would enable information derived from these data to be presented back to the customer (e.g. via an internet-connected device) shortly thereafter. The information could relate to recent behaviour by the customer, i.e. with the past day or week, but would not be near “real-time”.
- Second, “**near real-time**”. As noted above, data from the meter will be ‘broadcast’ via the Home Area Network (HAN) in near real-time. This enables near real-time information to be provided to the customer via a device paired to the HAN, e.g. and in home device designed specifically for this purpose. This platform would enable the customer to receive both

historic and near real-time information about their energy consumption and costs.

It should be noted that any of the channels could be fed by either “near real-time” data or “next day” data. For example, using near real-time data, a “kitchen top” display device designed to support a Time-of-Use Tariff could convey a message such as:

“It is now an off-peak price period. The rate is [] cents per MWh and your current demand is []MW”.

Alternatively, using next day data the device could convey a message using the customer’s recent history, such as:

“It is now an off-peak price period. The rate is [] cents per unit. Last week you used an average of €[] during this hour of the day.”

Both are potentially useful and engaging messages that might appeal in different ways to different customers.

In the following sub-sections, for each of the three required information channels, we set out the objective of the channel, the decision we made in October 2014, and the areas where the CER considers that further policy definition may be required in relation to that channel.

2.3.2 Smart Bill and Energy Statement

As part of our October 2014 Decision, the CER determined that all customers will receive more detailed information on their energy use as part of their bill. The objective of the Smart Bill and Energy Statement is to:

- Provide a periodic review of consumption and cost;
- Act as a checkpoint for the customer at consistent intervals; and
- Link consumption patterns directly to the customer’s bill/expenditure.

Our previous decision is set out below:

Smart Bill and Energy Statement
<ol style="list-style-type: none"> 1. An Energy Statement / information must be delivered to the Customer (both residential and SME) through existing processes free of any transactional charge, as part of the billing document or a separate document, offering the Customer choice of paper or electronic format. <ol style="list-style-type: none"> a) With regards to PAYG Customers, in order to align with credit Customers, 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

<p>least quarterly on request or where the Customers have opted to receive electronic billing, or else twice yearly.</p>
<p>2. Suppliers must provide information relating to any time of use tariffs in place for electricity and gas for that Customer, 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 Customer energy consumption and cost during those tariff periods.</p>
<p>3. The consumption information provided to the Customer 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.</p>
<p>4. Contact and reference details relating to where the following additional information can be found, should be provided in an appropriate form to the Customer in their Smart Bill:</p> <ul style="list-style-type: none">• Independent Customer 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.
<p>5. Hints and tips on how to reduce or shift their energy consumption and ultimately cost to the Customer will be provided in the Smart Bill.</p>
<p>6. Where smart meters are installed complementary energy consumption information will be made available to the Customer 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.</p>

In this phase of work the CER is considering where additional policy might be required (or equally not required) to ensure that the Smart Bill and Energy Statement delivers the appropriate customer experience and supports a competitive supply market.

The CER considers that the Smart Bill and Energy Statement were clearly defined in the last phase of work, and that limited additional information has become available since we made this decision, and so it is reasonable to expect that relatively little further definition is required at this point in time.

However, given our further work on the approach to transitioning to Time-of-Use Tariffs during this phase of work, the CER is of the view that it would be prudent to reconsider how information can be used – possibly for a transition period – to prepare customers for future choices they will make on which Time-of-Use Tariffs to opt for. This is a more material consideration in the context of the CER's Proposed Decision on Time-of-Use Tariff transition, because there is a greater role for customer and tariff choice.

Any such additional information could take a number of forms. For example, "shadow billing" to show how the customer's pattern of energy applied to an alternative (Time-of-Use) tariff would have affected their bill. Another example is "benchmarking", where the customer is provided with information on the energy usage patterns of "similar" customers.

2.3.3 Views invited

Question 1 – Do you have comments or suggestions for how the information provided to customers in their Smart Bill and Energy Statement could be used to support the transition to Time-of-Use Tariffs?

2.3.4 Harmonised Downloadable File (HDF)

As part of our October 2014 Decision, the CER determined that all customers will be able to access their historical consumption data. This is an important tool for empowering customers. The objective of the Harmonised Downloadable File is to:

- Provide access to historical interval data on import and export consumption to customers (and any third-parties that they choose to take services from);
- Enable customers and third-parties to analyse consumption patterns; and
- Facilitate presentation of data in a simple and consistent format.

Our previous decision is set out below:

Harmonised Downloadable File	
1.	The Customer 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.
2.	CER requires both Networks and Suppliers to offer this service. The Customer will have access to their consumption data: <ol style="list-style-type: none"> 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).
3.	It is expected that, where the Customer 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: <ol style="list-style-type: none"> a) Secure access for the Customer to a web interface. b) Functionality to provide historical consumption and export data in a consistent and widely used, standardised format. 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/export in each of the 48 half hourly periods within the day for the selected time period.

In this phase of work we will consider where additional policy might be required (or equally not required) to ensure that the Harmonised Downloadable File delivers the appropriate customer experience and supports a competitive supply market.

The CER considers that the Harmonised Downloadable File was clearly defined in the last phase of work, and that limited additional information has become available since we made this decision, and so it is reasonable to expect that relatively little further definition is required at this point in time. However, there are two specific points in the above decision, where we consider that that further work may be required in this phase.

Firstly, the exact format and timing of the HDF have not yet been confirmed, for example:

- The extent to which the “standard harmonised” format of the HDF defined in regulation; and
- What a “reasonable timeframe” for customers to receive their data after requesting it is, and the extent to which this needs to be defined in regulation.

The timescales associated with the HDF – both how quickly the data are refreshed, and how quickly the data can be accessed by customers (and third-parties with whom the customers wants to share the data) – are important considerations from the perspective of empowering customers and promoting effective competition. It would not appear to be acceptable, for example, for the HDF to be systematically more out-of-date or slower to obtain than the flow of data to a customer’s Supplier. This would appear to put third-parties at an inherent disadvantage relative to the incumbent Supplier in services based on the data contained in the HDF.

Secondly, and in this context, the process for a customer to obtain their HDF, and share it with third parties may have a significant influence on the number of customers who choose to access this data, and the degree to which it is used. It is therefore prudent to consider whether further definition on how the HDF is accessed is required in regulation. For example:

- The extent to which the processes for a customer to obtain their HDF and share that data with a third party need to be standardised and defined within regulation (as opposed to in industry processes); and
- How disputes and queries from customers relating to the data in the HDF managed, and to what extent is regulation required to set expected minimum service levels (either between industry parties or for customers).

2.3.5 Views invited

Question 2 – Do you have comments on the extent to which further policy definition of the format, processes and/or timeframe for the provision of the HDF is required in this phase of work?

2.3.6 Data in the Home

The High Level Design includes a Utility HAN. The HAN is the means of communication to smart gas meters, and the source of data for devices that provide real-time information in the home for both electricity and gas.

As part of our October 2014 Decision, the CER confirmed that:

Home Area Network
1. Real-time consumption data is provided over the Utility Home Area Network (UHAN) to the Home ⁶ , where technically feasible.

In this phase of work we will consider how the above policy, needs to be developed, specifically whether additional requirements (at a regulatory level) on the functionality of the HAN are needed to:

- Ensure that Suppliers can fulfil their obligations to provide cost and consumption information for non-standard Time-of-Use products; and
- Facilitate access to third-parties (where the customer has decided to provide this access).

The CER considers that because services that require near real-time data will be directly reliant on the HAN, it is important to establish whether the High Level Design is sufficient to facilitate innovation by Suppliers and third-parties (in their offerings to customers), and allows Suppliers to fulfil their obligations.

The CER notes that further work to define the industry processes and protocols are currently ongoing, and the CER is working closely with industry as the policy and processes are developed in parallel.

⁶ Where “Home” is used as a convenient term to include residential and small-medium enterprises (SMEs) in the scope of the NSMP but is not intended to imply exactly the same treatment of such customers.

2.3.7 Views invited

Question 3 – Do you have comments on the availability of data in the home as an effective, enduring platform for providing relevant, timely and useful information to customers? And are there any particular aspects where you consider the specification of minimum standards needs to be clarified, expanded or reduced?

2.4 Customer information – additional measures

In this section we consider the role and purpose of providing customers with information about energy usage and cost additional to the core elements outlined above. Some of these measures might be transitional in nature, and some may be limited to certain circumstances or customer groups.

The options we discuss below build on prior policy work and decisions by the CER. Specifically, those related to the MIHD (which are set out below), and we therefore base the discussion of options on the role and function of the MIHD.

2.4.1 October 2014 Decision – on the MIHD

In October 2014, the CER determined that all domestic customers will be offered an In Home Display, for a period of two years (the Mandated In Home Display, or MIHD).

The objective of the MIHD is to:

- Provide customers with near ‘real-time’ information on consumption, and cost where practical and useful;
- Act as a device to assist customers in making a step to greater engagement and understanding;
- Be simple and easy to use information that can be quickly understood and used; and
- Relate to periods shorter than the billing window, to facilitate a more immediate response.

Our previous decision is set out below:

Mandated In Home Display

1. A MIHD will be offered to all residential customers⁷.
2. MIHD Functionality will include as a minimum:
 - a) Presentation of Consumption data ;
 - i) Instantaneous Active Electricity Demand (Real-Time);
 - ii) Up to Date Consumption Position in Time Period (Cumulative gas and electricity: current day, week and month); and
 - iii) Ambient feedback on the basis of Electricity Time of Use Bands.
 - b) Presentation of indicative Cost data (not bill quality);
 - i) Instantaneous indicative Cost of Electricity Demand;
 - ii) Up to Date indicative Cost Position in Time Period (Cumulative gas⁸ and electricity); and
 - iii) Time of Use Bands and Price Information (electricity only).
3. A feasibility study will be commenced during 2014 to identify viable options (from both a technical & economical perspective) to enable automatic updates of Time-of-Use band/tariff rates to the MIHD (via non AMI channels).
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 Time-of-Use bands pre-configured for the ambient feedback; and
 - b) Allows for manual input of tariff rates by Customers.
5. ESNB will be responsible for:
 - a) Procuring the MIHD;
 - b) Installing the MIHD during the Meter installation process⁹ (based on Customer acceptance of MIHD offer and technical feasibility of installation e.g. HAN signal); and
 - 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 Time-of-Use).
6. Suppliers will be responsible for:
 - a) Providing support to the Customer in relation to Time-of-Use bands and tariff rates and any activities required to update these on their IHD;
 - b) Providing historical cost and consumption data to Customers on request using appropriate means for their Customers (e.g. web; smart bill, app). 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; and

⁷ A MIHD will not be offered to business customers

⁸ The MIHD may come preconfigured with an indicative CER approved Calorific Value

⁹ The specifics of the rollout strategy will be defined as part of planning the transition activities of market participants.

- c) If Suppliers are offering their Customers non-default Time-of-Use products with different time bands, Suppliers will offer an appropriate solution to 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 Customer 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 Customer at MIHD installation.
8. There will be a proportion of Customers 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 Customers 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 Customers.

In this phase, the CER is considering the different options for setting minimum standards for the provision of information to customers over and above the core elements described above – these options are discussed in sub-section 2.4.2 below.

The greater range of possible policy options for additional customer information compared to the core channels is reflective of the degree of flexibility that was left in the High Level Design, in part, to acknowledge the interaction between near real-time information provision and the approach to the Time-of-Use Tariff transition.

In addition, we note that further work to define the industry processes and protocols for data in the home is currently ongoing (lead by ESNB), and the CER is working closely with industry as the policy and processes are developed in parallel.

2.4.2 Options

An important feature of the CER's decisions to date are that they focus on both **transitional** support for customers – in the form of an In Home Display provided by ESNB and supported for two years – and enduring support. The **enduring** obligations are, in effect, limited to the core elements described in Section 2.3, with the provision of information over and above these element being driven by competition (among Suppliers and third-party service providers) and customer choice.

The options we discuss below retain this focus on how best to support through the provision of information for the initial transition to the new services that smart metering enables, including Time-of-Use Tariffs. Based on past decisions, they also focus on the role and function of the MIHD. The options has also been developed in recognition that the approach to information provision to customers will need to align with, and may well form part of, the wider strategy and plan for customer engagement around the NSMP more generally.

In developing these options, the CER has been mindful of the rapid changes already observed in communications technology, and how all areas of Irish society are using such technology much more prevalently to access information and services. For example, the take-up of ‘smart phones’ and the growing coverage of broadband (including free access in a growing number of public areas). While this trend may be expected to continue, including pursuant to the national broadband strategy, it is also important to be aware of groups or geographies where take up and access may continue to be lower. How the use of technology is changing is relevant to the consideration of options because of the risk of unnecessary costs or service quality limitations being ‘baked in’ if policy decisions are technology-specific.

There are a range of criteria that could be considered relevant in assessing the options outlined below. The options need be assessed against the CER’s statutory duties to protect customers and promote competition, and in respect of the strategic objectives of the NSMP. Relevant to both perspectives is the consideration of which options offers best value for money for customers as a means of building a better understanding of energy usage and cost in an initial period, in a manner that empowers customers to make good choices over tariffs and services.

For clarity, all of the options described below retain the concept of residential customer being offered¹⁰ the device (or service).

Option A: - “standard ESNB device, at time of meter install”

- Each customer is provided with an In Home Display by ESNB as part of meter installation process, and the device is supported by ESNB for a period of two years;
- The provision of the In Home Display (IHD) is independent of (and likely to be in advance of) the introduction of smart services (such as a Smart Bill and Energy Statement, and Time-of-Use Tariffs) by the electricity and/or gas Supplier(s).
- The costs would be recovered from the generality of customers, via Distribution Use-of-System charges.

While this option provides every customer with early, tangible evidence of the improvements to information provision that smart metering can support, the information provided may lack context. This is because the customer may not yet be receiving their Smart Bill and Energy Statement (which provides the overall picture of their pattern of consumption), and may not yet have the stimulus of a Time-of-Use Tariff to reward potential changes in energy usage. Consequently, there is a risk that the effectiveness of an IHD as a stimulus to changing behaviour

¹⁰ See October 2014 MIHD Decision Point 1

is reduced. There is also a risk that the overall experience of the customer could be perceived as relatively disjointed given the split of responsibilities between ESNB and Suppliers.

This option might also be expected to be relatively high cost – because a device would be offered to all residential customers, at an early stage in the process relative to when benefits might be expected to be realised.

Option B: - Supplier-provided IHD, aligned to Smart Bill or Time-of-Use Tariff

- A customer's Supplier would offer the customer an IHD, at a point in time in anticipation of or aligned to a change in the service being provided to the customer. This could be timed to coincide with the upgrade to provide a Smart Bill and Energy Statement, or the point at which the customer opts for a Time-of-Use Tariff.
- The ESNB device would be a "back-stop" for Suppliers who decided not to procure their own device. In any event, the device provided to the customer would be supported for two years.
- The ESNB 'service' of providing and supporting an IHD should have an associated, cost-reflective charge to Suppliers who opt for it as an alternative to a Supplier sourcing and providing their own device to their customers.

It might be expected that under this example, customers would have a more consistent experience, for example always receiving the MIHD when they sign up to a Time-of-Use Tariff – and always dealing with their Supplier in respect of the changes to the services and supporting information they receive. It would also increase the opportunities for Suppliers to engage with customers to promote awareness and understanding in a way which is more directly related to the services and tariffs Suppliers will be delivering.

This approach could also provide a customer with more choice, because Suppliers would have both the opportunity and the incentive to provide alternatives to the ESNB-provided device. This might be particularly relevant where devices are being provided to support different types of Time-of-Use Tariff that the Supplier might be offering. Under the option, the back-stop device provided by MIHD needs to come with a cost-reflective charge to the Supplier, else the Supplier's incentive to develop and offer better, less costly alternatives will be diminished.

While this option would appear to create better incentives to drive cost efficiencies in the provision of IHDs to customers, it would also impact on the nature of the costs associated with providing the device to the customer. Under option A, the 'installation' costs would be incremental to the meter installation if provided at the same time. Under option B, the 'installation' costs would be incremental to the

costs incurred by Suppliers in engaging with the customer in advance of the first Smart Bill and Energy Statement, or move to a Time-of-Use Tariff. In practice, the differences might be small, e.g. if under both routes the ‘installation’ process involves a device being posted to, and set up by, the customer (in a similar manner to a broadband service).

This approach may also add a degree of complexity for customers who have gas and electricity from different Suppliers.

Options C1 and C2: - Supplier-provided “service”, aligned to Smart Bill

- A Supplier would offer their customer an energy information “service”, at a point in time aligned to the first Smart Bill and Energy Statement, and augmented when the customer opts for a Time-of-Use Tariff.
- The “service” could be delivered via a device provided by the Supplier, or through a route which makes use of a customer’s own device (e.g. their smart phone, tablet or TV).
- There is a variant of this option (C1) which requires the minimum information service provided to the customer to make use of “near real-time” information, via the HAN.
- There is a variant of this option (C2) which requires the minimum information service provided to the customer to make use of the “previous day”, with the use of near real-time information being an option driven by customer preferences and competition between Suppliers (and other third-party providers of information services).
- As with Option B, the ESNB device would be a “back-stop” for Suppliers who decided not to procure their own device, and would have an associated, cost-reflective charge.

This option provides more flexibility for Suppliers in how they deliver information, and for customers in how they choose to receive information. Option C2 would also provide Suppliers with greater flexibility over the substance of the information they choose to provide – and would require a revisiting by the CER of the substance of what Suppliers would be obliged to provide at a minimum.

The greater flexibility provided under this model would tend to result in more diversity in the experience of different customers. This presents both opportunities and risks. The flexibility could result in more ‘tailored’ modes of communication, which align more closely to what individual customers want, find engaging, and are likely to respond to. However, there is a heightened risk that it could result in some customers receiving a diminished or perfunctory information services which is low-

cost for the Supplier but not particularly useful or engaging. Addressing this risk is a legitimate area for policy to focus on.

The option would also have a different cost structure. The ability to make use of devices (e.g. smart phones) that already exist for some customers is likely to reduce both the capital cost and the installation costs.

Options D1 and D2: - Supplier-provided “service”, no role for ESNB

- A customer’s Supplier would offer the customer an energy information “service”, at a point in time aligned to the first Smart Bill and Statement, and augmented when the customer opts for a Time-of-Use Tariff.
- The “service” could be delivered via a device provided by the Supplier, or through a route which makes use of a customer’s own device (e.g. their smart phone, tablet or TV).
- There is a variant of this option (D1) which requires the minimum information service provided to the customer to make use of “near real-time” information, via the HAN.
- There is a variant of this option (D2) which requires the minimum information service provided to the customer to make use of the “previous day”, with the use of near real-time information being an option driven by customer preferences and competition between Suppliers (and other third-party providers of information services).
- Unlike Options B or C, there would be no “back-stop” ESNB device for Suppliers who have a preference not to procure their own device.

This option represents a further change to both the cost structure and the balance of responsibilities. The costs of ESNB procuring a device as a “back-stop” (which, by definition, no Suppliers might actually use or need) are removed. This in turn implies that all Suppliers will need to incur costs to develop their own information service or device, in effect as an unavoidable cost of participating in the Irish market.

2.4.3 Views invited

Question 4a – Do you have any comments on the most effective way to complement the enduring information channels by providing all residential customers with a display device or service (to build understand of energy usage and cost in an initial period and to empower customers to make good choices over tariffs and services)?

Question 4b – Please provide your views and/or evidence relevant to assessing the options presented in Section 2.4?

3 Customer Protection

3.1 Summary

In this section we consider how to update the framework of measures to protect customers in respect of their dealing with energy companies – given the likely changes to how the market will operate. It focuses on the enduring changes. The related issue of how best to protect customers through the process of transition to smart services, e.g. in respect of the meter installation process, will be considered at a later date.

We explain why we are considering amendments to the framework for customer protection, and what we are hoping to achieve through these changes. We then step through some specific areas where change might be required, seeking views on the need for change and the form that such change might take. It should be noted that the CER have an ongoing role to monitor the customer protection framework, and amend it from time to time. The issues discussed in the document complement that more general process of review, by focusing on emerging issues consequent to the NSMP.

3.2 Objective

The ongoing presence of a proportionate and effective framework of customer protection for energy customers is a key component of a well-functioning retail market – and a core purpose of National Regulatory Authorities (NRAs) across Europe. Customer protection and empowerment is also a theme highlighted by European regulators and customer bodies in the context of the European policy agenda for energy¹¹.

The NSMP is a trigger to review the framework of customer protection because it will change fundamentally the products and services that are offered to customers, the way in which market processes operate, and the volume and forms of information available. The objective in undertaking this work is to identify the specific consequential changes that are required to establish a robust, enduring framework of customer protection that is fit-for-purpose and proportionate for a market with smart services.

It is important to note that this may well involve strengthening protections in some areas to cover new or heightened risks of customer detriment, and relaxing or removing protections in other areas where the risk of customer detriment is

¹¹ “A 2020 Vision for Europe’s energy customers – a Join Statement”, Council of European Energy Regulatory (CEER) and The European Customer Organisation (BEUC), 13 November 2012 (updated in June 2014)

reduced or removed by the introduction of smart services. It may also involve changes to the routes through which customer protection measures are delivered.

3.3 The current retail market - summary

The key features of the current retail market experience for domestic electricity and gas customers are summarised below. This is a reference point for the changes that we discuss subsequently.

- Each customer must have a Supplier, and supply must be through a networks-installed meter.
- Each customer has a choice of Supplier.
- There are a range of tariffs offered by each Supplier.
- There are a choice of payment methods – cash, cheque, direct debit.
- Credit customers are billed periodically, in arrears.
- Each customer can change Supplier – and customers can use switching sites to inform and facilitate this.
- Customers can in some circumstances nominate a trusted third party to advise/assist/engage with a Supplier on their behalf.
- Minimum requirements need to be met in providing (and making available) information for customers on their pattern of energy, but the richness of information is limited due to the frequency of meter reading. Further, augmenting this information by a customer reading their own meter is time-consuming and inconvenient for most customers.
- Meter readings are taken by networks manually by visiting the customer's premise and visually inspecting the meter.
- Meter are periodically replaced in line with ESN and GNI policies and procedures.
- Customers can provide their own meter readings.
- Customer bills reflect the aggregate level of consumption, not the profile of usage during the day or week (except for Day/Night metered customers)

- Prepayment is available – but involves installation of a prepayment meter by Networks (or in-line device by a Supplier).
- There is a process to follow before a networks-provided prepayment meter is installed for a customer, based on an assessment of the customer’s financial position and ability to pay their bill. In these circumstances, the additional metering costs are socialised.
- Prepayment meters auto-disconnect if the balance on the meter falls below a pre-defined level, and reconnect after the customer “adds” credit above a pre-defined level. Adding credit involves interaction with the meter, e.g. the insertion of a card or the input of a code. Customers have the option to invoke a small amount of “emergency credit”.
- There are defined times of the day, week and year when auto-disconnect may not occur (“friendly credit” periods). In such instances, any negative balance will increase in value in line with the amount consumed – and auto-disconnect at the end of the friendly credit period if not topped up sufficient to clear any negative balance.
- Prepayment meters display the credit balance on the meter, and some have an audible alert if the balance gets low.
- Bill customers can be disconnected for non-payment, after a process has been followed (consistent with the relevant Codes of Practice).
- Disconnection and reconnection (other than for prepayment meters operating in prepayment mode) involves a site visit.
- Micro-generation is treated, in effect, as negative consumption – and reflected in a customer’s bill accordingly.
- Queries relating to the quality of supply, e.g. voltage, generally require a site visit to investigate and resolve.

3.4 The current framework for customer protection

The key features of the current customer protection framework as defined in regulations specific to the energy sector are summarised below. These measures complement the more general, non-sector-specific aspects of customer protection.

The CER is responsible for implementing energy specific customer protection measures. This has been done, to date, through the development of guidelines for Suppliers and network operators on Codes of Practice and Customer Charters. Suppliers and Network Operators are then required to implement the guidelines

and provide a level of protection for their customers. The CER monitors compliance with the Code and Charters, and supporting guidelines. The guidelines for electricity and gas Suppliers take the form of the Supplier Handbook.

The CER also offers a complaint resolution service to customers who are experiencing specific issues in relation to their supply of electricity or natural gas. The Competition and Customer Protection Commission (CCPC) also has relevant statutory responsibilities.

The core set of protections afforded to household customers through the current arrangements can be summarised as follows:

- **Standard terms and conditions** must be approved by the CER, based currently on an assessment of compliance with the CER guidelines (the ‘Supplier Handbook’).
- Each Supplier must have in place a **Customer Charter** approved by the CER – and which conform to the CER guidelines (the ‘Supplier Handbook’). At a minimum, this must guarantee each Codes of Practice. These guarantees are required to have a financial penalty associated with them if they are not met. A penalty of €30 or more shall apply per guarantee.
- Each Supplier shall establish **Codes of Practice** in respect of:
 - i. **Marketing & Sign Up**: protecting customers against unwanted, unfair or misleading marketing methods and which ensures that Suppliers follow an appropriate procedure when signing new customers up.
 - ii. **Billing & Disconnection**: setting out their processes in relation to billing, payment and disconnection. It will ensure that bills, scheduled or otherwise, are accurately calculated based actual or estimated reads; that bills are regular and prompt; that a choice of payment methods are provided; that bills contain specified information; and the processes that must be followed prior to disconnection (which shall be a last resort).
 - iii. **Complaint Handling**: setting out the Supplier’s complaints handling process and commitments in a step by step easy to follow process.
 - iv. **Vulnerable Customers**: ensuring that systems and processes are in place such that registered vulnerable customers are not disconnected during the set time periods; that customer who are as critically dependent on electricity are not be disconnected; that all registered vulnerable customers are on the most economic tariff available for their chosen payment method, and that communication

options are in place for customers with additional requirements in that area.

- v. **Pay-As-You-Go:** ensuring that PAYG customers are appropriately informed; defining how debt may be recovered through prepayment vends; ensuring that PAYG is suitable for the customer; provisions for “emergency credit”.

The protections afforded to small and medium-sized business customers are similar in nature to the measures in place for household customers, with many of the same provisions. However, in some areas the protections are less extensive. For example, there is no requirement for a Code of Practice in respect of Vulnerable Customers, or PAYG Customers.

There are also customer protection measures in place in respect of the interactions between Networks and customers. To illustrate, ESNB is required to have in place a:

- **Customer Service Code:** which shall include, inter alia, provisions relating to an enquiry service, emergency contact, quality of supply targets, penalties, continuity targets, connection timescales, and other service level targets). It will be approved by the CER, and in line with any guidelines issued by the CER from time to time;
- **Complaint Handling Procedure:** which will detail the procedure for handling complaints from Final Customers and users about the manner in which the Licensee conducts its Distribution Business. It will be approved by the CER, and in line with any guidelines issued by the CER from time to time; and
- **Disconnection Code of Practice:** including any provisions to assist Vulnerable Customers in avoiding disconnection as set out by the CER from time to time. It will be approved by the CER, and in line with any guidelines issued by the CER.

Finally, there is a CER accreditation framework in place in respect of the third parties that customers may use to help them understand different tariff offerings and to change Supplier. This is limited to switching sites, and involves the site being permitted to market themselves as CER-accredited if their website meets, on an ongoing basis, as set by the CER.

3.5 The changes to retail market operation

Many of the features of the retail market will be unaffected by the NSMP, for example the ability for customer to change Supplier to take up a better offer.

However, the NSMP does imply significant changes in a number of areas, summarised below:

- Choice of tariffs offered by each Supplier include, at some point for each customer, Time-of-Use Tariffs.
- Data on energy use is much improved - available in the home, and on request from either Networks and/or the customer's Supplier. The customer will need to go through some form of process to establish their entitlement to the data. A means of accessing energy usage data in the home will be provided to each household customer¹², together with advice on how to use the device or service. The bill will also contain more information on energy usage.
- Suppliers and other third-parties may also offer devices, applications and services that enable the data available to the customer in the home to be converted into useful information – the customer will need to go through some form of process to establish secure access to the data for the purpose of using the device or application.
- There is scope for a much wider range of products and services related to energy supply, e.g. energy management, and consequently a much wider range of types of third-party who might seek to engage with (or act on behalf of) the customer.
- Customer-provided meter reads will only be used where remotely collected metering data are unavailable, and where ESN or GNI has not taken steps to read the meter manually. Further, visual inspection of the meter will itself be a more complex process, requiring the reader to scroll through a number of "registers" relating to consumption in different time bands.
- A customer's bill will be affected by their consumption profile - from the point at which the customer switches across to a Time-of-Use Tariff.
- Smart PAYG customers will be able to switch to prepayment (and back to credit mode) without a site visit.
- A Smart PAYG customer will not have their credit balance displayed on the meter – a time-stamped balance will be presented to the customer at least daily through other communication channels, e.g. text message.
- A Smart PAYG meter will not auto-disconnect when the customer's balance reaches a pre-set level – the conditions as to when balance-related

¹² See Section 2 above.

disconnection occurs will be set by the CER and the Supplier, and actioned by the Supplier sending a disconnection message to the meter.

- It will be technically feasible for disconnection and reconnection to be undertaken without a site visit by ESNB or GNI.
- Investigation of service quality queries may not need to involve a site visit.
- Queries or disputes should generally be informed by a more extensive and readily-available body of data for the parties to the query or dispute.

3.6 Potential areas for reform to customer protections

The changes to retail market operation described in Section 3.5 above will affect the customer experience, and the nature of the risks of a poor customer experience. While the NSMP will create the possibility of much improved levels of customer service – and greater scope for customers to be protected through choice and competition – it is prudent to consider whether certain aspects of customer protection need to be updated or new elements introduced. This will promote confidence in the changes being made, and ensure that the overall framework continues to be effective and proportionate.

In Sections 3.6.1 to 3.6.7 below we identify and seek views on some specific areas where updating might be required. We seek views on the materiality for customers, and the nature of the changes required to the framework for customer protection. In assessing these areas, it is important to consider the need for customer protections for the generality of customers and for customer groups who might have particular needs, for example linked to different forms of vulnerability.

3.6.1 Energy advice and management services

The NSMP will create opportunities for Suppliers and other parties to offer a wide range of new products and services derived from, or making use of, a customer's data. These would be separate to the core service of electricity or gas supply offered by a licensed electricity Supplier or gas Supplier. The new products and services might include, for example:

- **Information** - to enable tariff or product comparisons; to present energy consumption data back to a customer in a particular way or through a particular channel.
- **Advice** – to identify how a customer might best adapt their energy usage given their tariff and lifestyle choices; to identify a product, tariff or service that might benefit the customer.

- **Products** – equipment and/or services to enable a customer to adapt their energy consumption (e.g. ‘smart’ appliances, automated control systems, micro-generation, storage).

These services could be provided separately, or in combination. The services could be offered by electricity or gas Suppliers, or by third-parties. They may also potentially be offered in some circumstances by licensed network operators.

From a customer protection perspective, there are a number of customer experience risks associated with the enhanced scope for energy advice and management services. For example, the delineation between the provision of these services (including in the relation to electricity or gas supply) may not be clear and customers may consequently be confused about the choices they have; the advice being provided may not be independent, but geared towards a particular affiliated service provider – and this may not be clearly stated; the advice or products being sold may not be appropriate to the customer’s budget or lifestyle; the advice or products being sold may be of poor quality.

If we did not amend the pre-existing framework of customer protection, then any current generic protections would continue to apply – as would the existing framework of accreditation by the CER of switching websites. The accreditation process provides an endorsement that the service being offered to customers meets minimum standards of quality and objectivity as specified by the CER. Parties who have the accreditation can include this in their marketing, and the CER reserves the right to promote accredited services providers in its own communications with customers. The framework does not, however, stop unaccredited providers offering services to customers.

If we were to seek to strengthen the framework of customer protection, then there would appear to be two, potentially complementary, routes available. First, to augment the requirements for the Customer Charters and Codes of Practice currently in place on electricity and gas Suppliers (and, if necessary, for ESN and GNI). Secondly, to expand the existing ‘approved service provider’ concept to include accreditation by the CER of a wider range of services – and possibly to increase the depth and rigour of the accreditation process(es).

While another possibility would be to introduce more formal, and binding, requirements on providers of energy advice and management services, e.g. through a statutory licencing framework, the CER is not minded to pursue this route until it has fully explored the options consistent with the existing scope of licensed activities.

3.6.2 Data access and protection

The NSMP creates huge opportunities to improve the quality of information that customers receive on energy cost and usage. This can be a critical factor in empowering customers to make better choices about energy usage, and energy tariffs, products and services. It also enables customers to share their data with trusted third-parties in order to help them to this.

From a customer protection perspective, there are a number of customer experience risks associated with the processes through which customers might seek to access and use their data. For example, access to data may be made unnecessarily slow or inconvenient for the customer (or parties authorised by the customer to act on their behalf); the authority to act on behalf of a customer may be framed in terms which are ambiguous or confusing for the customer; preferences expressed by the customer in respect of how their data are used may not be updated accurately and quickly.

Any existing non-sector-specific protections will apply, in any event. Importantly, this includes obligations on all ‘data controllers’ under relevant data protection legislation.

If we were to seek to strengthen the framework of customer protection further, then there are a number of potential routes available. One option would be to augment the requirements for the Customer Charters and Codes of Practice currently in place on electricity and gas Suppliers (and, if necessary, for ESBN and GNI) to make more explicit reference to the use and availability of customer data. Another potential route is in the context of how services to be provided by ESBN (or GNI) are defined in the relevant licences. An example of this might be the ‘service’ of providing and supporting a HAN – to which customer devices can be securely paired. Finally, the route identified in Section 3.6.1 above of extending the reach of the CER’s ‘approved service provider’ concept might also be a relevant tool in protecting customer – for parties who are not licensed entities.

3.6.3 Remote disconnection

The NSMP will create the technical capability to disconnect supply at a particular meter remotely, e.g. for non-payment. Presently, a disconnection requires work to be undertaken on-site by an appropriately-qualified ESBN or GNI engineer.

Presently, there are important processes that must be followed between the customer and their Supplier prior to reaching the point at which a meter may be disconnected. These protections will remain. The particular charge we are focusing on is the mechanism for disconnecting once that point has been reached.

In this context, from a customer protection perspective there are number of ways in which this change in technical capability might constitute a risk. For example, the final checks that the correct meter is being disconnected will be different. There will not necessarily be an individual on-site talking to the person being disconnected. Also, there will be less information about the situation at the premise being disconnected, e.g. whether there are any unsupervised children or elderly people present, whether and what appliances are being used. Finally, there will be some uncertainty over the precise time at which the disconnection message will reach the meter.

If we did not amend the pre-existing framework of customer protection, then the current Codes of Practice relating to disconnection would endure. If we were to amend or strengthen protections relating to the disconnection process in order to address issues associated with the technical feasibility of remote disconnect, then we would expect to implement such changes through these existing instruments.

3.6.4 Tariffs

The NSMP will change the types of tariffs offers that customers will be able to access, and potentially increase the number and diversity of tariffs on offer. This is driven by the universal availability of Time-of-Use Tariffs consequent to the NSMP.

The CER's Proposed Decision and Consultation in respect of the transition to Time-of-Use Tariffs provides greater certainty on the potential tariff environment for customers. The framework for customer protection needs to reflect this new tariff environment. A key feature of the CER's Proposed Decision is to emphasise the importance of customer choice driven by effective competition between Suppliers. The ability to switch to a better deal is an important protection for all customers. Another feature emphasised is the role of standard metrics and measures to help customers compare Time-of-Use Tariff offers, and understand which might be more appropriate to the customer's energy usage, budget and lifestyle.

In this context, from a customer protection perspective there are a number of customer experience risks associated with the changing tariff environment consequent to the NSMP. For example, a customer not understanding what a particular Time-of-Use Tariff might mean for them – including how they need to change behaviour in order to save money; a customer being confused by inappropriate or misleading comparisons; inappropriate or confusing 'bundling' of services as part of a Time-of-Use Tariff offering. It should be noted that some of these risks might be heightened for certain classes of customer vulnerability

If we did not amend the pre-existing framework of customer protection, then the current Customer Charter and Codes of Practice requirement on electricity and gas Suppliers would endure. This includes specific Codes in respect of Marketing

and Sign-up, Billing and Disconnection, and Vulnerable Customers – designed to operate in the context of the existing range and form of tariff offers. If we were to strengthen or update the existing protections, then we would focus on updated or augmenting the existing instruments. It might also be the case that certain elements could be transposed into an upgraded accreditation framework for parties other than licensed electricity or gas Suppliers (see Section 3.6.1)

3.6.5 Prepayment customers

The NSMP will introduce a new form of prepayment – Smart PAYG. Smart PAYG will be different from the existing prepayment options available to customers, because, Smart PAYG has the following features:

- **No specific Prepayment meter required** – Customers may swap between Smart PAYG and credit tariffs without the need for a site visit or for new/additional devices to be installed in the customer’s home.
- **Daily balance** – The money remaining on the account (the “balance”) will be refreshed every day as at midnight by the Supplier, adjusting for consumption and top-ups during the day, and made available to the customer the next day.
- **Account information and servicing** – Smart PAYG customers will routinely receive information and alerts from their Supplier to help them manage their account. This will include daily balance messages, threshold alerts, and disconnection warnings if a positive balance is not maintained. Customers may obtain this information through a communication channel of their choice, and nominate others to receive the information also. There will be a range of top-up channels, and no need to interact with the meter in order to top up.
- **Automatic reconnection** – Allow customers to be reconnected without needing to interact with their meter (instead the Supplier will trigger this by issuing a reconnection message).

In this context, from a customer protection perspective there are a number of customer experience risks associated with Smart PAYG. Relevant existing protections, e.g. Friendly Credit period when electricity meters may not be disconnected even if the balance is negative, will remain. In addition, the CER has already addressed a number of aspects of customer protection through the Proposed Decision on how Smart PAYG will operate. This covers:

- Extending Friendly Credit to cover gas;
- Maintaining existing checks when moving a customer to a PAYG tariff, but remove the obligation to have landlord permission (as no meter installation is required);

- Obliging Suppliers to correctly calculate a customer’s balance once per day (the Midnight Balance) and then provide it to the customer, via a pre-agreed channel, by 12 noon each day; and
- Amending the permission provided to Suppliers to disconnect PAYG customers when their credit balance is below zero, to require, for Smart PAYG that:
 - The customer had a Midnight Balance at or below zero for two nights in a row;
 - The Supplier notified the customer that they are at risk of disconnection via a pre-agreed channel, at least 21 hours before the disconnection is processed. This message must include the amount that the customer needs to top up by to stay connected and the time by which the top up needed to be made;
 - The customer has not made this top up; and
 - The disconnection will not occur during any Friendly Credit Periods.

The CER’s Rolling out New Services – Time-of-Use Tariffs and Smart Pay-As-You-Go Proposed Decisions and Consultation paper sets out each of these points in greater detail, as well as the rationale for each protection being required for Smart PAYG, or no longer required.

There are, however, potential other customer protection issues associated with Smart PAYG that we have not yet fully considered. For example, Smart PAYG provides greater flexibility to Suppliers as to what happens when a balance is negative, there is no remaining Emergency Credit and (in electricity only) it is not a Friendly Credit period. Presently, prepayment meters automatically disconnect. Smart PAYG may be implemented by Suppliers in a manner that mimics the current experience, but other models are also feasible. For example, “over-run charges” as an alternative to disconnection, analogous to the types of charges that can apply when data or call allowances are breached under certain mobile phone contracts. It is important to consider the implications of such potential developments from a customer protection perspective.

3.6.6 The role of individual customer redress

The changes being made pursuant to the NSMP also create new mechanisms for how protections are delivered in practice. Specifically, there is much more data available at the level of the individual customer or meter point – hence greater scope to identify and validate whether customer-specific standards of service have been met or not.

This might create opportunities for more accurate and targeted redress in respect of existing standards of service, as set out in existing Customer Charters or Codes of Practice. It might also have relevance to designing an appropriate customer protection regime around relevant standards of service for new services, e.g. time taken to reconnect a meter following a top-up from a Smart PAYG customer.

3.6.7 Other potential issues

At this stage in the policy development process, we are seeking to identify and assess the materiality of issues that might warrant changes to the framework for customer protection. The four issues identified above does not purport to be a comprehensive list.

The CER invites stakeholders to identify other areas where they perceive a heightened or altered risk of customer detriment consequent to the NSMP, together with supporting evidence or reasoning.

3.7 Views invited

Question 5 – Do you have any comments on how the change to retail market operation consequent to the NSMP may warrant changing the existing framework of customer protection, and how it is delivered – including any views on the materiality of the changes highlighted as potentially material in Section 3.6?

4 Participation

4.1 Summary

In this section we consider the theme of participation, i.e. the ability of customers to access in full the new services and information made available through the NSMP. We explain what full participation means in practice, and set out some of the factors that might result in less than full participation, either as a result of technical constraints or through choices that are afforded to customers. We then discuss the role of policy in shaping the impacts on customers who are unable or unwilling to participate fully.

4.2 Objective and scope

The changes to how the market will operate, and how customers are informed about their energy supply, will benefit individual customers and improve the long-term efficiency and resilience of electricity and gas supplies in Ireland.

These longer-term benefits for the country as a whole result from making aggregate demand more flexible and responsive to changes in the cost of supply. At a macro level, this flexibility can defer or remove the need for costly investment in generation or network capacity, and increase the ability of the power system to accommodate more intermittent forms of electricity generation, from renewable sources.

The objective is therefore to maximise participation – because this will increase the likelihood of capturing benefits for individual customers, and for society as a whole. The corollary to this objective is to ensure that policy settings are such that the consequences for individual customers of less than full participation are reasonable and proportionate.

4.3 Full participation

The NSMP has been developed with an end-to-end design in mind as to how infrastructure support the collection and transmission of data, which then in turn supports services for customers. Full participation consistent with this design has the following features:

- Data on consumption through a meter are collected for the following primary purposes:
 - i. To bill a customer;
 - ii. To provide customers with detailed information on their energy usage;

- iii. To facilitate a change of Supplier or Legal Entity;
 - iv. To calculate a PAYG credit balance; and
 - v. To provide data for Network service improvement opportunities.
- Meters are polled remotely once per day, in order to collect consumption (and export, where relevant) data for each of the 30 minute intervals since the meter was last polled.
 - The electricity data collected by ESNB are validated and forwarded to the relevant Supplier, un-aggregated; and the gas data collected by ESNB are provided to GNI to validation, processing and forwarding to the relevant shipper.
 - The electricity data collected by ESNB are also aggregated by Supplier and provided to settlement in line with timescales provided for in the Trading & Settlement Code (TSC).
 - The archive of consumption data (and export data, where relevant) for each customer is held by Networks and the relevant Supplier. The relevant Supplier will only hold data (and therefore provide it, on request) while it has a reason for doing so. For example, if it is a current customer or if it within the period for which data is required to be held for a customer no longer being supplied. At least 24 months of data (if available) must be provided to the customer on request in the form of a harmonised downloadable file (HDF).
 - Relevant data available from the meter are also broadcast in the home in near real-time across a HAN.
 - Devices to capture and process the data are made available across the HAN through a process of secure pairing facilitated by ESNB.
 - The data made available to Suppliers supports the provision of the following services to customers:
 - i. Smart PAYG;
 - ii. Time-of-Use Tariffs; and
 - iii. Energy usage information and advice (including a Smart Bill and Energy Statement).
 - Instructions to disconnect or reconnect a meter can be sent remotely – hence, from a technical perspective, a successful remote disconnection and reconnection does not require a site visit.

This characterisation of full participation is the reference point for the discussions in Sections 4.4 and 4.5 below.

4.4 Customer choices affecting full participation

The current market design has certain features which provide customers with a degree of choice. For example, who supplies them, what tariff they are on, and how they pay. There are other features where customers are not afforded any choice. For example, the requirement that a supply is taken through a meter, the possibility of being disconnected for non-payment, and the use of a standard profile shape to attribute wholesale electricity charges to the customer's Supplier. In effect, these measures are designed to avoid individual customers being able to 'opt out' of paying for the energy they use – thereby protecting the interests of the generality of customers.

Similarly, there are certain features of the NSMP design which, at this stage are not anticipated to be optional. For example, smart meters are to be installed if a meter is accessible to ESNB (for electricity) or GNI (for gas) and if it is technically feasible to operate it as a smart meter once installed. Further, data will be retrieved remotely from all smart meters that are installed and operational.

However, there are also important features which are being designed explicitly to provide customer choice over aspects of participation – in particular in relation to the detail and frequency of data collection, and data privacy. A working assumption has been developed by the NSMP in close collaboration with its stakeholders and with engagement with and input from the Data Protection Commissioner. The working assumption – which is discussed in more detail in a supporting Information Paper published in parallel by the CER¹³ - provides for customers to choose to have their meter polled once every two months, and for the data polled to be the aggregate amounts consumed over the period in pre-defined time bands. The working assumption also provides for ad hoc reads to be obtained for the purposes of a change of Supplier or Legal Entity.

The implications for customers who opt out of daily remote collection of half-hourly consumption data in favour two-monthly remote collection of time-banded aggregate data would appear to be as follows (absent further policy measures):

- Bills would be based on more accurate data than is currently the case, comprising six actual reads per year;
- The ability to take up a Time-of-Use tariff would be maintained – although the choice of tariffs would be more limited. This is because tariffs which adopted time-bands other than those pre-defined on the meter could not be billed using the data available;
- There would be incremental improvements to the richness of energy usage information available on the Smart Bill and Energy Statement, and via the

¹³ CER/15/139

Harmonised Downloadable File – but it would be constrained. It would not, for example, be capable of showing differences in usage within the pre-defined time bands or on different days of the week. This restriction would apply to any service relying on the data collected remotely by Networks;

- The customer would be able to access data in the home, via devices paired to the HAN; and
- The customer's ability to access Smart PAYG would be effectively removed, because a Supplier would not have access to the data needed to calculate a daily balance.

The implications for customers where Networks are unable to obtain access to upgrade the meter also needs consideration from a policy perspective. From a certain point, after a period of time and a number of steps being taken by Networks, it may be reasonable to assume that an ongoing inability to obtain access to replace a meter beyond a certain point reflects an element of choice on the part of the customer. Further, refusal of access imposes costs on other customers, e.g. to pay for the extended (and potentially) ongoing process of seeking to obtain access, and the ongoing manual collection and processing of data in respect of the meter point.

4.5 Technical constraints affecting full participation

The model of full participation characterised in Section 4.3 above is predicated on the presence of a communications link between ESNB and the electricity meter, and the presence of a communications network within the home. The network in the home (the HAN) is required to communicate with the gas meters installed by GNI, and in order to 'broadcast' data for use by the customer.

While ESNB will seek to adopt (and develop) communications solutions which have strong coverage, the features of current technology and evidence from other jurisdictions suggests that there may be a number of property types and meter locations where establishing communications is problematic.

The implications of the absence of a WAN for Suppliers and customers would appear to be:

- Billing based on manual meter readings (collected or estimated every two months), potentially augmented by customer-own reads;
- Continuing use of standard profile in settlement;

- A truncated Smart Bill and Energy Statement based on the same granularity of data as for customers who opt out of the remote collection of interval data – but, in practice, with fewer actual reads;
- Data available in the home via the HAN; and
- Access to Time-of-Use tariffs is unclear.

The implications for the customer experience if the HAN is not present would appear to be:

- Billing based on interval data collected daily, remotely for electricity and billing based on manual meter readings (collected or estimated every two months) for gas (if it is present on site);
- Settlement on basis of interval data;
- A “full” Smart Bill and Energy Statement, and fully populated HDF;
- No access to data in the home via the HAN; and
- Access to all Time-of-Use tariffs that do not require information making use of data in the home.

The policy considerations for customers who are not able to participate fully as a result of technical constraints are different to customers who make a choice not to participate fully. Policy in respect of the former should seek to promote cost-effective measures which minimise the constraints on participations.

4.6 Views invited

Question 6 – Do you have any comments on the role of policy in shaping outcomes for customers who are not able or willing to participate in full in the new services and information made available through the NSMP - either as a result of technical constraints or through choices that are afforded to customers in respect of the frequency of remote data collection?

5 Next Steps

This document forms part of a wider plan and schedule to mid-2016 for the CER’s work on policy to support the NSMP. The objective is by that date to have specified all the key policy settings required for successful delivery of the NSMP and effective, proportionate regulation **for customers** of the market arrangements that result.

The schedule involves four document “releases” – through the course of which issues will be identified, options for resolution assessed, and decisions proposed and finalised. July 2015 is the second release of documents, and comprises the following:

Delivered in Document Release 2 – July 2015

Subject	Document type
Rolling out New Services: Time-of-Use Tariffs and Smart Pay-as-you-Go	<p>Proposed Decision – in respect of transition approach for Time-of-Use Tariffs and definition of Smart PAYG</p> <p>Consultation – in respect of supporting guidelines and other related issues</p>
Empowering and Protecting Customers	Consultation
Regulating the Transition Activities of Market Participants	Consultation

These issues will be progressed through analysis of consultation responses for those issues subject to consultation, and through ongoing engagement with a wide range of customer organisations, market participants and other interested parties. Stakeholders will be updated further on progress through Document Release 3, as outlined below.

Planned for Document Release 3 – November 2015

Subject	Document type
Rolling out New Services: Time-of-Use Tariffs and Smart Pay-as-you-Go	<p>Decision – in respect of transition approach for Time-of-Use Tariffs and definition of Smart PAYG</p> <p>Proposed Decision – in respect of supporting guidelines</p>

Empowering and Protecting Customers	Proposed Decision
Regulating the Transition Activities of Market Participants	Proposed Decision

In addition, the CER plans to update stakeholders in November on the overall 'road-map' for regulatory change, including to address any new and emerging issues. This will aim to set out, among other things, the plans and timetable for converting policy decisions into relevant regulatory instruments, such as licence obligations, guidelines and codes of practice.

The focus for the first part of 2016 will be on confirming decisions in any outstanding areas, and finalising the planned approach to transposing the decision into the relevant regulatory instruments.

Appendix A – List of Substantive Questions

The aim of this section is to allow for a “short-cut” option for respondents to submit their comments to the CER. Respondents are invited to complete the table to indicate their position on the questions being asked. Respondents should outline YES or NO answers to each of the questions listed. If they have a further comment that will clarify their answer, this should be included in the Comments box.

Appendix A will be published alongside the Consultation Paper in Word format.

Please note: Respondents are in no way obliged to respond to the questionnaire provided and are welcome to submit comments in their preferred format. When preparing responses respondents should indicate which question or proposal their text refers to.

Question		Response		
No.	Question	Yes	No	Rationale
1	Do you have comments or suggestions for how the information provided to customers in their Smart Bill and Energy Statement could be used to support the transition to Time-of-Use Tariffs?			
2	Do you have comments on the extent to which further policy definition of the format, processes and/or timeframe for the provision of the HDF is required in this phase of work?			
3	Do you have comments on the availability of data in the home as an effective, enduring platform for providing relevant, timely and useful information to customers? And are there any particular aspects where you consider the specification of minimum standards needs to be clarified, expanded or reduced?			

4	<p>Question 4a – Do you have any comments on the most effective way to complement the enduring information channels by providing all residential customers with a display device or service (to build understand of energy usage and cost in an initial period and to empower customers to make good choices over tariffs and services)?</p> <p>Question 4b – Please provide your views and/or evidence relevant to assessing the options presented in Section 2.4?</p>			
5	<p>Do you have any comments on how the change to retail market operation consequent to the NSMP may warrant changing the existing framework of customer protection, and how it is delivered – including any views on the materiality of the changes highlighted as potentially material in Section 3.6?</p>			
6	<p>Do you have any comments on the role of policy in shaping outcomes for customers who are not able or willing to participate in full in the new services and information made available through the NSMP - either as a result of technical constraints or through choices that are afforded to customers in respect of the frequency of remote data collection?</p>			

Appendix B – Glossary of Terms

This appendix sets out the technical terms and acronyms used within this document.

Acronym	Term	Definition
-	Bill Customer	A customer who pays for their energy after they have used it, following a bill from their Supplier
	Dynamic Time-of-Use Tariffs	A Time-of-Use Tariff (see below) under which the unit rate for a particular time period may be amended or updated close to real-time.
ESBN	ESB Networks	-
-	Existing Regulatory Framework	The current set of regulatory documents that industry participants are required to comply with in order to participate in the market – which includes (but is not limited to) Supply and Network Licences and the Supply Handbook
GNI	Gas Networks Ireland	-
HAN	Home Area Network	-
HDF	Harmonised Downloadable File	-
IHD	In Home Display	-
MIHD	Mandated In Home Display	-
NSMP	National Smart Metering Programme	-
-	October 2014 Decision	The decisions that the CER has already made in relation to the high level design of the Time-of-Use Tariffs – the October 2014 Decision is available on the CER website.

PP	Prepayment	See PAYG (same meaning)
PAYG	Pay-As-You-Go	A customer who pays for their energy in advance, by purchasing top ups (credit) from a local shop or online
SB&ES	Smart Bill and Energy Statement	-
-	Static Time-of-Use Tariffs	A Time-of-Use Tariff (see below) under which the variations in unit rate by time of day, week or year are fixed in advance
TOU	Time-of-Use Tariffs	A tariff under which the amount paid by a customer for each unit of electricity or gas consumed varies by time of day, week or year
UHAN	Utility HAN	-
WAN	Wide Area Network	-

Appendix C – NSMP strategic objectives

The NSMP has the following strategic objectives (which apply to both electricity and gas unless stated otherwise):

1. **Encourage Energy Efficiency** - encourage end-use energy efficiency via enhanced information and pricing signals, resulting in reductions in overall energy usage and thus reduced emissions of carbon dioxide, nitrogen oxides and sulphur oxides as a measure to combat climate change and reduce pollution.
2. **Facilitate Peak Load Management (electricity only)** - reduce demand for peak electrical power, with consequential electricity generation savings and improved security of supply. This can be achieved via pricing signals such as Time-of-Use Tariffs, where the price of electricity varies at different times of the day to reflect the changes in the costs of producing electricity. Other options include automated demand side management and direct load control (via aggregators).
3. **Support Renewable and Micro Generation (electricity only)** - assist in achieving of Ireland's stated national targets for renewable electricity generation (40% by 2020) by facilitating demand response solutions that will complement increasing levels of intermittent wind generation on the electricity system. And to facilitate the wider take up of micro generation.
4. **Enhance Competition and Improve Customer Experience** - support more timely and efficient change of Supplier process for customers, and promote competition by enabling Suppliers to offer customers:
 - a) Accurate billing;
 - b) Accurate, detailed and more frequent information on their energy consumption and costs;
 - c) More innovative products to support the efficient use of electricity (balanced by the need to protect customers from a proliferation of complex tariff products leading to confusion); and
 - d) A more diverse service offering to customers from Suppliers including in the area of prepayment product offerings.
5. **Improve Network Services** - improve services to customers, particularly in areas such as meter reading, fault monitoring and electrical power quality. Significantly improve theft prevention and measure losses more accurately.

These objectives have been used as guiding principles in the decision making throughout the programme.