



Commission for Energy Regulation

An Coimisiún um Rialáil Fuinnimh

**CER National Smart Metering Programme
Managing the Transition to Time-of-Use Tariffs**

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CER – Information Page

Abstract:

The National Smart Metering Programme (NSMP) is a plan for upgrading how electricity and gas retail markets operate. The upgrade will provide consumers with more accurate bills, better and more accessible information about energy use, and access to new tariffs and services. Consistent with maintaining a consumer-centric approach to the NSMP, the CER is reviewing and updating consumer policy in order to be ready for these new developments.

One aspect of the upgrade is for Time-of-Use Tariffs to become the norm for all electricity customers. These are tariffs which have different prices at different times of the day. The CER are presently considering the different approaches we can adopt to make the change to Time-of-Use Tariffs. We are issuing this consultation paper to gather views and evidence. The consultation builds on a set of decisions published by the CER in October 2014. It is published in the context of the overall programme as described in the Phase 3 Overview note¹.

Target Audience:

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

Related Documents:

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

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.

¹ Phase 3 Overview CER/15/052

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 small and medium sized businesses 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 consumers by 2020 if there is a positive cost benefit analysis.

Consistent with maintaining a consumer-centric approach to the NSMP, the CER is reviewing and updating consumer 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 consumers, and the framework for customer protection. The updated consumer policy framework needs to provide appropriate levels of support and protection across all types of consumers.

One specific area of change is for Time-of-Use Tariffs to become the norm for all electricity customers. These are tariffs which have different prices at different times of the day, e.g. lower prices at off-peak times. The CER are presently considering the different approaches to making the change to Time-of-Use Tariffs. We are issuing this consultation paper to gather views and evidence. The consultation builds on a set of decisions² published by the CER in October 2014.

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:

² CER/14/046 – Smart Metering High Level Design - Decision

- First, there will be much more information available on how individual consumers 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 consumers. For example, through a display device in the home, or an application on a mobile phone – in turn giving consumers 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. This creates opportunities for consumers, although these are likely to vary between customers, or (potentially) classes of customer.
- Third, it will remove the need for a site visit, and the installation of additional 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 for a bill (including for a closing bill when a customer changes supplier) will be available almost immediately. Hence, the risk of a customer being surprised by a high bill (or building up a positive balance) as a result of previous bills being based on estimates should be virtually removed.

Time-of-Use Tariffs

The process of rolling out Time-of-Use tariffs to a much wider range of customers is a key influence on the overall success of the NSMP. There are significant costs associated with rolling out the new meters and creating the supporting communications infrastructure – but there are significant benefits available by using energy more efficiently, including by using energy at times of the day when wholesale electricity costs are lower. Time-of-use tariffs (in tandem with better, more accessible information on energy use) will be key to realising these benefits. The potential benefits are more pronounced in electricity because the costs of production are more variable over time - although the new platform supports the development of Time-of-Use tariffs in both gas and electricity.

In October 2014 the CER published a set of decisions that finalised the High Level Design for the NSMP. On tariffs, the CER concluded that a simple form of Time-of-Use tariff should over time become the new standard tariff for electricity customers. It also concluded that there was a role for suppliers to develop alternative forms of Time-of-Use Tariff in competition with one another. The CER did not make a decision on mandating Time-of-Use Tariffs in gas at this stage.

The CER is now consulting on the different approaches that could be adopted to make the transition to Time-of-Use Tariffs as the norm, with particular focus on how different approaches may influence the customer experience and levels of customer engagement. In this consultation document we set out and invite views on three illustrative examples, chosen to represent points on a spectrum:

- **Example A – “early, standardised transition”:** - This option is an approach predicated on providing certainty to consumers on what the transition to Time-of-Use will mean to them – and for transition to occur early, with certainty. It is regulation-led.
- **Example B – “a transition window”:** - This option is an approach predicated on providing certainty to consumers on what the transition to Time-of-Use will mean to them if they do not make an active choice – and provides for a transition to Time-of-Use within a defined period of time (e.g. 12 months). It also provides for a degree of choice over the form of Time-of-Use tariff each customer transitions to.
- **Example C – “transition as a back-stop”** - This option is an approach predicated on choice for consumers over when and how the transition to Time-of-Use occurs – based on the range of options that suppliers develop for them. It is supplier-led and consumer-led. The role of regulation is to define some backstop requirements.

It is important to note that the example approaches we include are illustrative, and designed to create useful reference points for the purpose of consultation. We strongly encourage stakeholders to develop their own alternative examples for consideration also.

Consultation process

CER invites all interested parties: members of the public, the energy industry, and customers, to comment on the questions raised in this consultation paper by close of business on Tuesday 12 May 2015. These responses will inform a follow-up paper planned for publication in July 2015.

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1.0 Introduction

1.1 Purpose of this paper

The purpose of this paper is to seek the views of the public and the CER's stakeholders on the approach that should be adopted in making Time-of-Use Tariffs the standard form of tariff for all domestic and smaller business electricity customers.

At this stage we are focusing on the overall approach. There will be further consultation later in the year on the more detailed aspects of consumer policy to give effect to the chosen approach.

In order to make an informed and impartial decision on this topic, the CER wishes to obtain comments from members of the public, the energy industry, customers and all interested parties. The CER commits to considering all views equally and affording each respondent the opportunity to clarify any issue raised in this paper.

1.2 Background Information

This document builds on a significant body of information and analysis conducted by the CER as part of the National Smart Metering Programme (NSMP) and forms a key part of the work that the CER is undertaking in this phase of the programme.

This document has been produced in the context of the overall programme as described in the Phase 3 Overview¹ note and is one of three documents (one information paper and two consultation papers) that the CER have published at this time. The full set of documents is available on the CER website³. Given the volume of information available, a summary of the context for this consultation is included in section 2.

1.3 Structure of this paper

This paper is structured in the following manner:

- **Section 2** outlines the **context** for this consultation paper. It explains the nature of the changes being made through the NSMP to how the retail market operates, and what this means for consumers and suppliers. It

³ The other two in the set are the Smart PAYG Consultation CER/15/054 and Policy Roadmap Information Paper CER/15/053

describes the role of Time-of-Use tariffs as part of these changes, and sets out the broad timetable;

- **Section 3** describes the **different approaches** to supporting the transition to Time-of-Use tariffs that are available, given the chosen design of the NSMP and the policy decisions on tariffs already made by the CER;
- **Section 4** presents an **initial assessment** of the different approaches against a range of relevant criteria. At this stage, we do not have a preferred option.
- **Section 5** provides additional context on the relationship between the approach to transition to Time-of-Use Tariffs, and the detailed components on the CER's October 2014 decisions – by illustrating the range of ways in which these detailed components, e.g. rules governing the form of the Standard Smart Tariff, might be given practical effect.
- **Section 6** presents **next steps**.

Sections 3, 4 and 5 include specific questions where CER are seeking views. To aid regulatory transparency and assist in the delivery of an efficient consultative and decision making process, the CER asks respondents to address these questions directly in their responses;

- **Appendix A** contains a summary list of all of the questions, which the CER has asked in this Consultation Paper. This is designed to be a useful aid to respondents when preparing their submissions and can also serve as a “short-cut” for respondents who may not have the resources to devote to preparing a full submission.

1.4 Responding to this paper

CER invites all interested parties: members of the public, the energy industry, and customers, to comment on the questions raised in this consultation paper by close of business on Tuesday 12 May 2015.

As 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

2.0 Context

2.1 Summary

This section sets out the context for the consultation issues and questions that follow. It:

- Explains how the NSMP will underpin significant reforms to how the retail market operates, and the types of services that can be offered by suppliers to customers – and the associated timelines;
- Describes the role of Time-of-Use tariffs as part of these reforms, and as a key factor in ensuring that the NSMP delivers benefits for consumers.
- Recaps the policy decisions that have already been made by CER that have relevance to this consultation.

2.2 The NSMP and the retail market

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 small and medium sized businesses was announced in July 2012⁴. This decision was made following a 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 consumers by 2020 if there is a positive cost benefit analysis.

The CER is taking a consumer centric approach to the NSMP and the rollout of Smart Meters with a focus on the development of consumer policy and services in the areas of Time-of-Use Tariffs, PAYG services, Customer Protection, Customer Information and Participation. The programme will also take account of the particular requirements of different customer groups including vulnerable customers and those in financial hardship.

⁴ NSMP Phase 1 Decision CER/12/008

The changes in services experienced by customers are facilitated by technical changes to how retail markets operate. The systems and process that underpin the services that suppliers provide to customers will be based on much more detailed, up-to-date consumption data, collected remotely every day. These technical changes will be complemented by an updated framework of customer policy and protection, including appropriate protections in respect of data privacy.

Currently, the services that a bill customer receives are based on a manual meter reading taken once every two months (at most), plus ad hoc reads taken when a customer switches supplier or changes address. Changes to the service, e.g. to reconnect or to become a prepayment customer, require a site visit by an engineer.

The new platform for services will be based on half-hourly meter reading, collected remotely every day – with data from the meter also being ‘broadcast’ securely for access by the customer within the home. Changes to the service will generally be capable of being made remotely, without the need for a visit from an engineer⁵. This new platform will be made available by ESB Networks (ESBN) and Gas Networks Ireland (GNI) rolling out new meters, and a supporting communications infrastructure.

This new technical platform will change fundamentally the services that customers receive, in three key ways:

- First, there will be much more information available to individual consumers on how they 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 consumers. For example, through a display device in the home, or an application on a mobile phone.
- Second, it will make 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 domestic customers with Day/Night metering. It also increases the potential range and flexibility of such tariffs.
- Third, it will remove the need for a site visit, and the installation of additional 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 for a bill (including for a closing bill when a customer

⁵ It should be noted that this does not preclude requiring a presence on site in certain circumstances in the context of consumer protection – an issue that will be considered by the CER in due course through related NSMP policy development work.

changes supplier) will be available much more quickly. Hence, the risk of a customer being surprised by a high bill (or building up a positive balance) as a result of previous bills being based on estimates should be virtually removed.

The process of procuring and installing the new technical platform is due to commence this year, with ESNB's initiation of its procurement process for meters and communications.

2.3 The role of Time-of-Use tariffs

The process of rolling out Time-of-Use tariffs as the new standard form of tariff in a manner that promotes acceptance, understanding and engagement from consumers will be a key determinant of the overall success of the NSMP. There are significant costs associated with rolling out the new meters and creating the supporting communications infrastructure – but there are significant benefits available by using energy more efficiently, including by using energy at times when it is cheaper to produce. Time-of-use tariffs (in tandem with better, more accessible information on energy use) will be key to unlocking these benefits.

The potential for large benefits derives from how the costs of energy supply are formed. The costs of producing and distributing electricity (and, to a lesser extent, natural gas) vary significantly by time of day⁶, and year. The electricity system needs to be kept in balance in real time. At times of high demand, or when demand changes very quickly, the balance is maintained by bringing on higher cost sources. Further, capacity to transmit and distribute electricity and gas needs to be sized to support demands at peak times – hence network costs are in large part defined by expected consumption levels at particular times.

If demand can be more flexible in response to prices at different times of day (or year), then significant savings can be made in the overall cost of supplying electricity and gas – including by accommodating more and cheaper forms of renewable generation. These savings also include the cost of carbon associated with using carbon-intensive forms of generation.

The scope for Time-of-Use tariffs and energy usage information to influence when and how domestic and small business customers use electricity has already been tested practically in Ireland. Phase 1 of the NSMP involved a large-scale Customer Behaviour Trial which demonstrated the effect of time-of-use tariffs (alongside better information) on patterns of energy use among a large, representative sample of domestic and smaller business energy users⁷.

⁶ The electricity wholesale price is calculated every 30 minutes. Historically, prices have been significantly higher, on average, in the early evening – when demand is highest. The differences are most pronounced on business days and in the winter months. Peak prices which are more than double the average price during the day are not uncommon.

⁷ Results of Electricity Cost-Benefit Analysis, Customer Behaviour Trials and Technology Trials CER/11/080a

2.4 CER decisions

In October 2014 the CER published a set of decisions that finalised the High Level Design of the NSMP. This included decisions on the role of Time-of-Use Tariffs.

In essence, this concluded that a simple form of Time-of-Use tariff should over time become the new standard tariff for electricity customers – replacing the current form of standard tariff, which has a single, flat unit rate. It also concluded that there was a role for suppliers to develop alternative forms of Time-of-Use Tariff in competition with one another.

The decision also confirmed that the data made available through the new platform should be used to calculate how much each supplier buys from Ireland's electricity wholesale market. Currently, estimates are used which make the simplifying assumption that all customers⁸ have the same standard pattern of consumption. The use of actual data in settlement strengthens the link between the energy usage of an individual customer and the costs to a supplier of serving that customer. Hence, it strengthens the incentives on suppliers to develop tariffs that encourage customers to move to lower-cost patterns of electricity usage.

The October 2014 decisions relating to Time-of-Use Tariffs focused on what suppliers should be obliged or permitted to do. These obligations or permissions would, in turn, impact on the Time-of-Use Tariffs that individual consumers transition to, or choose from. The decisions can be summarised as follows:

- Each supplier must develop for their customers:
 - i. a single standard domestic TOU tariff structure of a form prescribed by the CER, which domestic customers of that supplier will migrate to by default at an appropriate time following the installation of their smart meter; and
 - ii. a TOU tariff structure for each SME customer or class of SME customer, to migrate to at an appropriate time following the installation of their smart meter. For each customer or class of customer, this could be the same as a supplier's standard domestic TOU tariff structure or one of the alternative tariffs offered by a supplier (see next point).
- Each supplier may also offer other TOU tariffs – subject to such tariffs meeting certain criteria to be set by the CER, relating to the form and range of such tariff structures.

⁸ In practice, there are different standard patterns (or "profiles") assumed for different classes of customer – with an identical pattern assumed for all customers within each class.

- The establishment of a “test bed” to enable suppliers and interested customers to move on to more sophisticated tariffs (such as dynamic tariffs, where the cost of consumption can vary at short notice) on a trial basis, with limited numbers of customers and for limited periods of time.
- Progression of complementary reforms, implemented as soon as practicable, in particular to require that aggregated half-hourly consumption data from smart meters be used to determine the volume of electricity each supplier is charged for in Ireland’s electricity wholesale market.

3 Transition to Time-of-Use Tariffs: example approaches

3.1 Summary

In this section we explain the options available in respect of our approach to introducing Time-of-Use tariffs, and set out three example approaches. We also describe the criteria that are relevant to assessing the relative merits of these different approaches. The approach eventually adopted will form one part of a wider set of measures, including for example updated consumer protection and initiatives to promote consumer engagement and understanding.

It is important to note that the example approaches we include are illustrative, and designed to create useful reference points for the purpose of consultation. We strongly encourage all stakeholders to develop their own alternative examples for consideration also. We also encourage stakeholders to consider variants in which the approach changes (or has the ability to change) over time.

3.2 Scope of examples

There are a common set of considerations in developing different options, based on the decisions already made by CER, and the approach being used to roll out the infrastructure that enables suppliers to offer Time-of-Use tariffs. These include:

- The infrastructure to collect and communicate such data will not be available for all customers immediately. Coverage will build over time. Hence, for a period of time there are likely to be some customers where Time-of-Use tariffs are possible, and other customers where Time-of-Use is not technically feasible.
- Time-of-Use tariffs cannot be offered to a customer until data on consumption by that customer during the different tariff price periods are available. Otherwise a supplier will not be able to calculate the customer's charges for each of the different time periods used in the Time-of-Use tariff.
- As the more granular data becomes available to consumers and suppliers, patterns of consumption during each day and across different days for that particular consumer will be revealed. In turn, it is important to consider the:

- i. Relationship between this new flow of data (and how it is converted into useful information for the customer) and the timing of Time-of-Use tariffs – either as a choice, or as a requirement; and
 - ii. Relationship between the timing of Time-of-Use tariffs – either as a choice, or as a requirement, and when the data for that meter point are used in wholesale market settlement to calculate wholesale charges for the relevant supplier.
- The ease (or difficulty) of comparing different Time-of-Use Tariffs that might be made available to consumers – and what types of tools should be promoted (or required) to assist.

There are also a number of issues associated with how the CER's October 2014 decisions will be implemented in practice that may have relevance to the approach taken. Specifically:

- How the requirements relating to each supplier's Standard Smart Tariff are set by CER;
- How the criteria for Time-of-Use Tariffs that are permitted to be offered to consumers are defined, and governed;
- How the criteria for "Test Bed" Tariffs are defined, and governed; and
- The role of standard terminology and metrics for tariff comparisons.

The detailed, practical implementation of the CER's decisions will be addressed in full in subsequent consultations, but issues raised and discussed at this stage in order to provide further context to the consultation on overall approach.

3.3 Criteria for assessing options

The purpose of this phase of policy development by CER is to identify specific areas where new or amended policy is required to give effect to – and promote successful delivery of – the National Smart Metering Programme. Successful delivery in this context means the promotion of a set of outcomes that align with the strategic objectives of the NSMP, and CER's statutory duties to protect the interests of energy consumers and promote effective competition.

In the previous phase of work we developed with industry stakeholders a set of criteria to use in assessing options that might affect the tariff environment⁹. We view these criteria as relevant to the specific question of how to approach the transition to Time-of-Use Tariffs. The criteria are:

⁹ NSMP Phase 2 Time-of-Use Tariff consultation CER/13/152

- **A. Easy to understand for consumers** – tariffs that are simple enough to allow the customer to make informed choices about how and when they use energy, and the impact that this will have on their bill;
- **B. Engaging for consumers** – the tariff environment should engage and empower consumers to select the best tariff for them and lead to the changes in consumption behaviour that can reduce costs for the consumer;
- **C. Providing choice and protection for consumers** – tariffs that provide choice to consumers, that are easy to compare, that ensure that consumers (including vulnerable customers) are not discriminated against, and that protect customers data ;
- **D. Flexible in supporting competition and innovation** – a tariff environment that is flexible enough to allow suppliers to innovate and compete effectively, allowing market mechanisms to drive the development of new tariffs;
- **E. Operational at low cost for all parties, and over time** – the tariff environment should facilitate tariffs that are cost effective for suppliers and distributors to operate;
- **F. Providing tariffs that accurately reflect supply chain costs** – tariffs should reflect the cost of generating and transporting the energy used and limit cross-subsidies between tariffs or groups of customers.

Criteria A-C are primarily customer-facing. They relate to impacts that will be visible to consumers directly. Criteria D-F are more directly relevant to the impacts on market participants, primarily suppliers. They impact the customer experience only indirectly. We use this distinction between consumer-facing criteria and supplier-facing in the discussion in Section 4.

In considering different options, it is likely that there will be trade-offs between different criteria. For example, tariffs that reflect supply chain costs in a granular way might not necessarily be simple. Considering options with reference to these criteria will hopefully help clarify and understand what the different trade-offs are.

3.3 Illustrative examples

In this section we set out three different illustrative examples for an overall approach to the transition to Time-of-Use Tariffs as the norm for electricity customers. They represent points on a spectrum, and have been chosen to illustrate the range of possibilities in order to elicit views.

We recognise that there are many variants of the examples we set out, which are also viable. We strongly encourage stakeholders to develop their own alternative examples for consideration also. We also encourage stakeholders to consider variants in which the approach changes (or has the ability to change) over time. This includes variants which adopt a different approach between domestic and smaller business customers. Stakeholders are encouraged to provide an assessment of their proposed alternative approach against the criteria outlined above.

It is also important to note that there are a range of issues that need to be addressed in order to support consumers through the transition, regardless of the approach. For example, to ensure that customers are well informed in advance about the process, and what it means for them. These are important considerations – and will be addressed through other, related consultations.

Another theme common across all examples (and variants) is the continuing ability for customers to change supplier. This is a key, enduring factor in ensuring that consumers are protected.

Example A – “early, standardised transition”

This example is an approach predicated on providing certainty to consumers on what the transition to Time-of-Use will mean to them – and for transition to occur early, with certainty. It is regulation-led.

- When the technical platform to offer Time-of-Use tariffs is available for a customer, then the transition to the supplier’s Standard Smart Tariff is made quickly;
- This might take the form of the transition occurring at the start of the next billing cycle for the customer. Hence, the bill immediately following the data being available to support Time-of-Use is based on the customer’s existing tariff – and the move to a Time-of-Use tariff takes effect from the start of the next billing period.
- The tariff that each customer transitions to is their supplier’s Standard Smart Tariff.

- For a period of time, the only Time-of-Use tariff that each supplier may offer is their Standard Smart Tariff.
- Each customer may subsequently move to a competing supplier's Standard Smart Tariff, but the option of moving back to a 'flat rate' tariff (offered by their current supplier, or by a competing supplier) is not available.
- The possibility of suppliers offering Time-of-Use Tariffs other than their Standard Smart Tariff is introduced at a later date, to be defined by CER.
- The data on a customer's actual pattern of consumption will be used in wholesale settlement as soon as it becomes available, i.e. shortly in advance of the transition to a Time-of-Use tariff. This impacts on a supplier's wholesale trading risk.

Example B – “a transition window”

This example is an approach predicated on providing certainty to consumers on what the transition to Time-of-Use will mean to them if they do not make an active choice – and provides for a transition to Time-of-Use within a defined period of time. It also provides for a degree of choice over the form of Time-of-Use tariff each customer transitions to:

- When the technical platform to offer Time-of-Use tariffs is available for a customer, then by default the customer will transition to their supplier's Standard Smart Tariff within a defined period of time.
- The defined period of time might be in the order of 12-15 months – to allow for the transition to be informed by a full year's worth of data about the consumer's pattern of energy use. The transition window would not be 'reset' if a customer changed supplier in this period.
- The tariff that each customer transitions to will, by default, be their current supplier's Standard Smart Tariff.
- A supplier may choose to offer alternative Time-of-Use Tariffs (subject to meeting set criteria – see Section 5) for the customer to transition to. And a customer may opt for one of these available choices, rather than the default of their supplier's Standard Smart Tariff.
- Once a customer has made the transition to a Time-of-Use Tariff, then the option of moving back to a 'flat rate' tariff (offered either by their current supplier, or by a competing supplier) is not available.

- The data on a customer’s actual pattern of consumption will be used in wholesale settlement from a defined point at or around the mid-point of the transition window.

Example C – “transition as a back-stop”

This example is an approach predicated on choice for consumers over when and how the transition to Time-of-Use occurs – based on the range of options that suppliers develop for them. It is supplier-led and consumer-led. The role of regulation is to define some backstop requirements.

- When the technical platform to offer Time-of-Use tariffs is available for a customer, every customer must be provided with the choice (to take effect from the start of the next billing cycle, or later) of at least one Time-of-Use Tariff.
- This choice across alternative Time-of-Use Tariffs must include the supplier’s Standard Smart Tariff. It may also include alternative Time-of-Use Tariffs (subject to meeting set criteria – see Section 5).
- The option of staying on or moving back to a ‘flat rate’ tariff (offered either by their current supplier, or by a competing supplier) is available to all customers for a period of time.
- The point at which all customers must transition to a Time-of-Use Tariffs is determined by CER at a later date. When that decision has been made, Example C becomes (in effect) similar to Example B.
- Each customer who is not on a Time-of-Use Tariff at the back-stop date for transition will then be transitioned, by default, to their supplier’s Standard Smart Tariff. The option of reverting to a flat-rate tariff will not then be available.
- The data on a customer’s actual pattern of consumption will be used in wholesale settlement as soon as it becomes available, i.e. shortly in advance of supplier being able to offer a Time-of-Use Tariff.

Q1. Do you have any observations on the way in which examples have been defined – recognising that they are points on a spectrum, and do not rule out consideration of variants?

4 Assessment of examples

4.1 Summary

In this section we discuss the properties of each of the examples for the approach to establishing Time-of-Use Tariffs as the norm for electricity customers described in the previous section – with reference to the defined criteria. The purpose of this analysis is to highlight the nature of the trade-offs involved in choosing an approach, and to provide a structured context for consultation responses. At this point in time, CER does not have a preferred option.

In each section we provide a recap of each example, and discuss its features with relevance to the three customer-facing criteria (simplicity, engagement, choice & protection), and to the three supplier-facing criteria (scope for innovation, cost of operation, cost-reflective tariffs).

4.2 Example A – “early, standardised transition”

To recap, this example has the following key features:

- The transition to the supplier’s Standard Smart Tariff is made quickly, e.g. at the start of the next billing cycle after the point at which a Time-of-Use Tariff is technically feasible;
- For a period of time, the only Time-of-Use tariff that each supplier may offer is their Standard Smart Tariff. The possibility of suppliers offering Time-of-Use Tariffs other than their Standard Smart Tariff is introduced at a later date. The option of moving back to a ‘flat rate’ tariff (offered by their current supplier, or by a competing supplier) is not available.
- The data on a customer’s actual pattern of consumption will be used in wholesale settlement as soon as it becomes available, i.e. shortly in advance of the transition to a Time-of-Use tariff.

Consumer-facing criteria

This section considers the features of Example A in respect of the criteria relating directly to the experience of consumers. In this context, the following insights would appear to be relevant:

- The range of tariffs available is simple. There is, in effect, one tariff per supplier. This makes it relatively easy for each customer to understand the

Time-of-Use Tariff they are being transitioned to, and to compare across suppliers.

- A simple tariff environment represents a reduction in the number of tariff options available to consumers compared to the market today.
- The standardised nature of the customer experience in transition to Time-of-Use Tariffs enhances opportunities to build consumer engagement through centralised messages.
- A standardised experience might be perceived as more equitable – hence building positive engagement among customer groups or segments who might have concerns about the potential distributional impacts of Time-of-Use Tariffs.
- The limited choices available across Time-of-Use Tariffs might reduce engagement among some classes of customer – particularly if the standard form of Time-of-Use Tariffs is perceived to lack relevance to their particular pattern of usage.
- There is also evidence from consumer focus groups convened by CER in the previous phase of work that an absence of choice could be perceived as unfair.

Supplier-facing criteria

This section considers the features of Example A in respect of the criteria relating to the experience of suppliers and other market participants, which in turn impacts indirectly on consumers. In this context, the following insights would appear to be relevant:

- Example A would limit – for a period of time – the scope for suppliers to differentiate themselves through tariff innovation as a means of attracting and retaining customers. This could reduce the competitive pressure on suppliers, including from new entrants.
- Net operating costs could potentially increase. Investment in systems and processes to support Time-of-Use will be incurred, but the ability of suppliers to realise benefits will be constrained by the range of tariffs that can be offered. The costs associated with handling queries from customers who are concerned about the introduction of Time-of-Use might be also be higher under this option.
- There is a risk of tariffs not reflecting supplier costs. This would occur if a supplier had a different cost structure to that assumed in setting the structure of the Standard Smart Tariff. This might put pressure on

suppliers to hedge their wholesale positions in a manner that aligns to the assumed cost structure – even if this is more expensive for them. This in turn might increase costs to consumers.

Q2. Do you have any comments on Example A – including reasoning or evidence that you consider to be relevant to its assessment, or alternative examples that in your view better address the relevant criteria?

4.3 Example B – “a transition window”

To recap, this example has the following key features:

- When the technical platform to offer Time-of-Use tariffs is available for a customer, then by default the customer will transition to their supplier’s Standard Smart Tariff within a defined period of time (say, within 12-15 months).
- The tariff that each customer transitions to will, by default, be their current supplier’s Standard Smart Tariff. A supplier may choose to offer alternative Time-of-Use Tariffs (subject to meeting set criteria – see Section 5) for the customer to transition to.
- After the transition window has closed, then the option of moving back to a ‘flat rate’ tariff is not available.

Consumer-facing criteria

This section considers the features of Example B in respect of the criteria relating directly to the experience of consumers. In this context, the following insights would appear to be relevant:

- The range of tariffs available is wider than under Example A – hence there are more options for consumers to choose from. There is also a degree of choice over when an individual consumer moves to a Time-of-Use Tariff.
- The task of building understanding and awareness among customers in respect of the tariff they are being transitioned to is more varied. There is probably less scope for centralised messaging, and more reliance on supplier-specific communication.
- The wider range of tariff choices places greater weight on the adequacy of the tools available to customers to compare and contrast tariffs offers –

recognising that Time-of-Use Tariffs are inherently more difficult to compare than flat-rate tariffs.

- A withdrawal of flat-rate tariffs at the end of the transition window represents a reduction in choice for consumers – although this is offset by the potential increase in choice across available Time-of-Use Tariffs.
- A standardised default tariff might be perceived as providing protection for less engaged customers – hence building positive engagement among customer groups or segments who might have concerns about the potential distributional impacts of Time-of-Use Tariffs.
- The potential for a range of alternative Time-of-Use Tariffs being available might promote engagement – as it increases the chances of a Time-of-Use Tariff being perceived by a customer as being “right for me”. But it also removes the option of a flat-rate tariff at the end of the transition window.

Supplier-facing criteria

This section considers the features of Example B in respect of the criteria relating to the experience of suppliers and other market participants, which in turn impacts indirectly on consumers. In this context, the following insights would appear to be relevant:

- Example B would provide scope for suppliers to differentiate themselves through tariff innovation as a means of attracting and retaining customer. This could retain (or increase) the competitive pressure on suppliers, including from new entrants. In this context, we note that (as today) the alternative tariffs might represent better value for consumers than the standard tariff.
- The impact on net operating costs could be positive or negative. Investment in systems and process to support Time-of-Use will be incurred, but there is greater scope to realise benefits through tariff innovation – in the context of a framework in which all customers will transition to a Time-of-Use Tariff within a defined window. However, there will be costs associated with handling queries from customers who are concerned about the introduction of Time-of-Use, and in promoting customer understanding and engagement more generally.
- There is a risk of tariffs not reflecting supplier costs under the Standard Smart Tariff (as under Example A). But this is mitigated to an extent by the ability to offer alternative tariff choices.

Q3. Do you have any comments on Example B – including reasoning or evidence that you consider to be relevant to its assessment, or alternative examples that in your view better address the relevant criteria?

4.4 Example C – “transition as a back-stop”

To recap, this option has the following key features:

- When the technical platform to offer Time-of-Use tariffs is available for a customer, every customer must have the choice of at least one Time-of-Use Tariff – including, but not limited to the supplier’s Standard Smart Tariff.
- The option of staying on or moving back to a ‘flat rate’ tariff (offered either by their current supplier, or by a competing supplier) will continue to be available to all customers until a back-stop date set by CER, based on market monitoring of the voluntary take-up.
- Each customer who is not on a Time-of-Use Tariff at the back-stop date will then be transitioned, by default, to their supplier’s Standard Smart Tariff – but may also choose one of the available alternatives. At this stage in the process, Example C is similar to Example B from a customer perspective.

Consumer-facing criteria

This section considers the features of Example C in respect of the criteria relating directly to the experience of consumers. In this context, the following insights would appear to be relevant:

- The range of tariffs available is likely to be wider than under Example B because the option of staying on (or reverting to) a flat-rate tariff remains available for a longer period of time.
- This could reduce the risk of disengagement (or opposition) among customers who have concerns about the distributional and other impacts of Time-of-Use Tariffs.
- It could result in missed opportunities among customers who would accept, engage with, and benefit from Time-of-Use Tariffs – but who are insufficiently engaged, or too risk-averse, to make an active choice themselves to move to a Time-of-Use Tariff. This potential for the market

to settle at a level with relatively low total take-up of Time-of-Use could detract from the business case for the NSMP¹⁰.

- The task of building understanding and awareness among customers consistent with high level of Time-of-Use take-up is more challenging. The combination of central and supplier-led communication needs to cover both the case for moving to Time-of-Use at all, and what tariff might be most appropriate for a particular customer.
- The need for adequate tools to compare Time-of-Use Tariffs is similar to under Example B.
- There is likely to be a net increase in tariff choice, because Time-of-Use tariffs will be evident in the market, while at the same time there would be no regulatory requirement on suppliers to reduce the range of flat-rate tariffs they offer.
- A standardised default tariff together with the option to stay on a flat-rate tariff might be perceived as providing protection for less engaged customers – hence building positive engagement among customer groups or segments who might have concerns about the potential distributional impacts of Time-of-Use.
- The potential for a range of alternative Time-of-Use tariffs being available might promote engagement – as it increases the chances of a Time-of-Use Tariff being perceived by a customer as being “right for me”.

Supplier-facing criteria

This section considers the features of Example C in respect of the criteria relating to the experience of suppliers and other market participants, which in turn impacts indirectly on consumers. In this context, the following insights would appear to be relevant:

- Example C would provide scope for suppliers to differentiate themselves through tariff innovation as a means of attracting and retaining customers. This could retain (or increase) the competitive pressure on suppliers, including from new entrants.
- The impact on net operating costs could be positive or negative. Investment in systems and process to support Time-of-Use will be incurred, but there is greater scope to realise benefits through tariff innovation - although this could be constrained by the number of customer who choose not to engage with Time-of-Use. The costs associated with

¹⁰ The business case for the NSMP as a whole is scheduled to be reviewed next year. The consideration of costs and benefits associated with Time-of-Use Tariffs will be part of that review.

handling queries from customers who are concerned about the introduction of Time-of-Use might be lower under Example C (because of the option to stay on a flat-rate tariff).

- There is a risk of tariffs not reflecting supplier costs under the Standard Smart Tariff (as under Example A). But this is mitigated by the ability to offer alternative tariff choices.

Q4. Do you have any comments on Example C – including reasoning or evidence that you consider to be relevant to its assessment, or alternative examples that in your view better address the relevant criteria?

5 Related detailed consumer policy questions

5.1 Summary

In this section we provide additional context on the relationship between the approach to transition to Time-of-Use Tariffs, and the detailed components on the CER's October 2014 decisions. We do this by illustrating the range of ways in which the following policy concepts could be implemented in practice:

- Each supplier's Standard Smart Tariff;
- Permitted alternative Time-of-Use Tariffs;
- "Test Bed" Tariffs
- Standardised metrics for comparing Time-of-Use Tariffs.

The CER will be consulting on detailed options, together with supporting analysis, in each of these areas in July 2015

5.2 Standard Smart Tariffs

The CER has already decided that there is a role for a standard form of Time-of-Use Tariff to be set by CER. Specifically, *"that each supplier must develop a single standard domestic TOU tariff structure of a form prescribed by the CER, which domestic customers of that supplier will migrate to by default at an appropriate time following the installation of their smart meter"*. Further that the tariff *"takes the form of a Day/Night/Peak tariff, using the time bands that are to be defined by the CER."*¹¹

There are a number of options for how this concept is given practical effect, illustrated by the following examples on a spectrum of more to less regulation.

- **"Regulation of detail"**: CER sets the values of a significant number of tariff parameters, including (a) how time bands are set and (b) the minimum ratios for the unit rates between different time bands. CER also sets key features that must be included. For example, a 'price promise' covering the first few bills for customers who are new to a Time-of-Use tariff – which provides for a refund of any positive difference between what is due, and what would have been due under the tariff the customer transitioned from.

¹¹ CER/14/046B

- **“Regulation of key parameters”**: CER defines the time bands, and sets rules in respect of some key parameters. For example, a requirement that unit rate differences must “create meaningful incentives for customers to adapt their energy use”, and that for a temporary period some form of price protection must be included.
- **“Regulation through guiding principles”**: CER defines the time bands, and sets some principles that each supplier’s Standard Smart Tariff must embody. For example, (i) to be easy-to-understand and compare, and (ii) to promote more efficient energy use through unit rates that vary by time of day, week or year.

Q5. Do you have any observations on the potential rules governing each supplier’s Standard Smart Tariff, and how they might interact with the overall approach adopted for introducing Time-of-Use Tariffs?

5.3 Permitted Alternative Tariffs

The CER has already decided that there is a role for suppliers to offer alternative Time-of-Use Tariffs. Specifically, that CER supports “[t]he principle that suppliers should be able to offer alternative tariffs to the standard TOU tariff, on an opt-in basis for domestic and SME customers...[and]...[t]hat the form of any alternative tariff(s) and the range of alternative tariffs offered must be consistent with criteria set by CER, designed to ensure that the range of tariffs across the market remains easy to understand and compare,”¹²

There are a number of options for how this concept might be given practical effect, illustrated by the following examples on a spectrum of more to less regulation.

- **“Narrow structure”**: CER sets the criteria for permitted alternative tariffs to be, in effect, variants of the Standard Smart Tariff. For example, alternative tariffs would need to use the same time bands.
- **“Broad structure”**: CER sets the criteria for permitted alternative tariffs to support a broad range of alternative static Time-of-Use Tariffs¹³. For example, alternatives could adopt any structure of time bands as long as there were no more than three time bands in any 24 hour period, and no more than four types of ‘day’. To illustrate, this would permit a supplier to offer a tariff where there were three pricing periods in each day (standard,

¹² CER/14/046B, p11

¹³ A static Time-of-Use Tariff is a tariff where the unit rates are set in advance, and can only be changed with significant advance notice. This contrasts with dynamic Time-of-Use Tariffs, where the unit rate applicable at any time can be set at short notice, e.g. day ahead or closer to real time.

peak and off-peak) and rates that varied depending on whether it was a business day or not, and whether it during the Winter or not.

- **“Unconstrained – if static”:** A supplier is permitted to offer any tariff, as long as the unit rates and time bands are set sufficiently in advance. A variant of this approach would be to introduce guiding principles for suppliers to have regard to when developing new tariffs, e.g. not to introduce tariffs that are unnecessarily complex.

Q6. Do you have any observations on the potential rules governing permitted alternative tariffs, and how they might interact with the overall approach adopted for introducing Time-of-Use Tariffs?

5.4 “Test Bed” Tariffs

The CER has already decided that there should be a means for suppliers to offer more innovative alternative Time-of-Use Tariffs on a ‘trial basis’. Specifically, that *“[s]uppliers will be able (should they choose) to offer tariffs that differ from the permitted alternatives (e.g. that involve a larger number of time bands, alert-driven pricing, or dynamic pricing) in order to facilitate ‘tariff testing’”*. Further, that *“for any ‘test tariff’, suppliers will need to comply with a number of the conditions, (designed by the CER) to limit the scale of such ‘tariff testing’ and protect customers until the full consumer impacts are better understood.”*¹⁴

There are a number of options for how this concept might be given practical effect, illustrated by the following examples on a spectrum of more to less regulation.

- **A means to target and co-ordinate tariff innovation:** Under this approach the ‘test bed’ would be a mechanism for setting specific objectives for tariff innovation, and to provide a forum for collaboration. This approach might, for example, provide a structured environment for collaboration between ESNB and Eirgrid and electricity suppliers on tariffs to support particular forms of demand response which have value from the perspective of system operation and network management.
- **Broad structure – including dynamic:** Under this approach, a supplier could use the ‘test bed’ facility for any static Time-of-Use tariff, and for certain classes of dynamic Time-of-Use tariff. For example, simple dynamic tariffs that are essentially static, but provide for a small number of ‘super-peak’ price days to be declared at the day-ahead stage every year¹⁵. Other variants would be to permit dynamic tariffs where they are

¹⁴ CER/14/046B, p12

¹⁵ This is similar in structure to EDF’s “Tempo” Tariff, introduced in France in the 1990s. The tariff had six different rates: three different types of days (denoted by a colour - Red, White or Blue), each divided into two

accompanied by a degree of automation of how demand responds to prices, and/or where the customer is non-domestic.

- **Constrained only on initial numbers:** Under this approach, any tariff would be a permissible tariff for the ‘test bed’. The only constraint would be on the number of customers it could be offered to in the first instance, and its duration. At an appropriate review point, a supplier would have the option of presenting a case for the tariff to be continued and/or extended – which could be given effect through a (supplier and tariff-specific) derogation against the rules governing permitted tariffs.

Q7. Do you have any observations on the potential rules governing “test bed” tariffs, and how they might interact with the overall approach adopted for introducing Time-of-Use Tariffs?

5.5 Tariff comparison tools

The CER has already decided that “*some aspects of terminology relating to how tariffs are presented to customers will need to be standardised, and that regulation will have a role to play.*” Time-of-Use Tariffs are inherently more complex than flat-rate tariffs, and it is important the key features are communicated in a way that is easy-to-understand and compare across tariffs, and which conveys relevant information on what a tariff might mean for a customer clearly and succinctly.

The communication of how a tariff might impact on a customer – and hence how suitable it might be – is more complex for Time-of-Use tariffs compared to flat-rate tariffs because the cost of the tariff depends on when electricity is consumed, and the scope to save money will depend on how easy or convenient it is for an individual customer to shift their usage to less expensive times of the day, week or year.

There are a number of options for how this concept might be given practical effect, illustrated by the following examples on a spectrum of more to less regulation.

- **CER-defined measures and metrics:** - CER defines a set of metrics (and calculation methodology) that must be used by all market participants in presenting a Time-of-Use Tariff to a customer. Further, it promotes the adoption of these metrics by third parties such as switching sites through accreditation schemes.

pricing periods. The customer was notified of the colour of the day by the evening of the previous day. There was a maximum number of high price days that could be declared each year.

- **Supplier-defined measures and metrics:** - CER obligates supplier to develop a set of measures and metrics collectively, and come forward with a proposal for consideration by CER. CER would provide guidance to suppliers on the objectives that a proposal must meet.
- **Regulation by reference to principles:** - CER obligates each supplier to present its tariffs in a manner that meets certain criteria, e.g. clear, simple to understand, clear presentation of customer impacts and scope to save money by changing usage, etc. The market may then coalesce around some standard metrics and measures, prompted in part by commercial pressures to do so and the behaviour of intermediaries.

Q8. Do you have any observations on the potential rules governing standard metrics to support Time-of-Use Tariff comparisons, and how they might interact with the overall approach adopted for introducing Time-of-Use Tariffs?

6 Conclusion

6.1 Next steps

This consultation will close on Tuesday 12 May 2015.

After the consultation, the CER will consider the responses received, and determine what further analysis is required to inform a decision on the overall approach on making the transition to Time-of-Use Tariffs. It will also, where necessary, progress further engagement with stakeholders through meetings and workshops – and further analysis and evidence gathering, including through customer research and focus groups.

The next document will present updated analysis of the different options for the approach to making the transition to Time-of-Use Tariffs. Depending on the responses received to this consultation and any relevant input garnered from focus groups, the CER will issue a further round of consultation or potentially move to a draft decision on issues where there is a sufficient evidence base. The next paper will be published in July 2015.

Again, subject to the evidence base, this will be followed by a draft decision or a final decision document to be published in November 2015. This paper will move to conclude on both the overall approach, and the detailed specification of policy to give effect to that approach.

The table summarises these indicative dates:

Paper	Indicative publication date
<ul style="list-style-type: none"> ▪ Consultation/Draft Decision on ToU approach & specification 	July 2015
<ul style="list-style-type: none"> ▪ Draft Decision/Decision on ToU approach & specification 	November 2015

It is also important to note that the consumer policy work in respect of Time-of-Use Tariffs is one element of a wider program of work, which will be progressed through a series of related consultations. This phase of work is scheduled to conclude across all policy areas by Q2 2016. The full schedule is set out in *CER/15/052 - The National Smart Metering Programme – Phase 3 Overview*.

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.

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 any observations on way in which examples have been defined – recognising that they are points on a spectrum, and do not rule out consideration of variants?			
2	Do you have any comments on Example A – including reasoning or evidence that you consider to be relevant to its assessment, or alternative examples that in your view better address the relevant criteria?			
3	Do you have any comments on Example B – including reasoning or evidence that you consider to be relevant to its assessment, or alternative examples that in your view better address the relevant criteria?			
4	Do you have any comments on Example C – including reasoning or evidence that you			

	consider to be relevant to its assessment, or alternative examples that in your view better address the relevant criteria?			
5	Do you have any observations on the potential rules governing each supplier’s Standard Smart Tariff, and how they might interact with the overall approach adopted for introducing Time-of-Use Tariffs?			
6	Do you have any observations on the potential rules governing permitted alternative tariffs, and how they might interact with the overall approach adopted for introducing Time-of-Use Tariffs?			
7	Do you have any observations on the potential rules governing “test bed” tariffs, and how they might interact with the overall approach adopted for introducing Time-of-Use Tariffs?			
8	Do you have any observations on the potential rules governing standard metrics for Time-of-Use Tariff comparisons, and how they might interact with the overall approach adopted for introducing Time-of-Use Tariffs?			

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	-
NSMP	National Smart Metering Programme	-
-	October 2014 Decision	The decisions that 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
	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
	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

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 TOU 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 Consumer Experience** - support more timely and efficient change of supplier process for consumers, and promote competition by enabling suppliers to offer consumers:
 - 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 consumers from a proliferation of complex tariff products leading to confusion); and
 - d) A more diverse service offering to consumers from suppliers including in the area of prepayment product offerings.
5. **Improve Network Services** - improve services to consumers, 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.