An Coimisiún um Rialáil Fóntais
Commission for Regulation of Utilities

Smart Meter Upgrade
Standard Smart Tariff

Decision Paper

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The Exchange, Belgard Square North, Tallaght, Dublin 24, Ireland
T +353 1 4000 800 | F +353 1 4000 850 | www.cru.ie

Executive Summary

Smart meters are the next generation of electricity and gas meter and are being rolled out across Europe and internationally. Similar to the upgrades which have already taken place in other sectors, such as television and mobile communications, the rollout of smart meters marks a shift away from analogue to digital for electricity and gas retail markets in Ireland. This move to upgraded digital meters will bring many benefits for energy customers by enhancing competition, making bills more accurate, providing customers with better information on their energy consumption and empowering consumers with new tools to make more informed choices about their energy needs. The rollout complements domestic energy policy and is an important element of the Department of Communications, Climate Action and Environment's 'Ireland's Transition to a Low Carbon Energy Future, 2015-2030.'[1]

Smart meters will also facilitate offerings of new products and services, such as time-of-use tariffs, to all energy customers. The transition to time-of-use tariffs is an important element of the smart meter upgrade and will play a crucial role in Ireland's energy future by reducing costs and making supply more resilient and secure. This will be important in light of increasing demand on the system through electrification of heating and expansion of electric vehicles. Time-of-use will incentivise customers to shift consumption to times of the day when electricity is cheaper which will reduce the requirement to increase investment in more generation capacity. However, at present access to tariffs which enable customers to save money by shifting some of their electricity consumption to times of the day when energy is cheaper (off-peak) requires the installation of a special type of meter (day / night meter). The smart meter upgrade will extend access to time-of-use tariffs to all customers and eventually these tariffs will become the norm.

The Standard Smart Tariff

The CRU has decided not to adopt a 'one-size fits all' approach to the transition to time-of-use tariffs. Rather, the CRU has introduced obligations on electricity suppliers to take primary responsibility for engaging with electricity customers as customers transition to time-of-use. This process will be flexible and also ensure electricity customers are provided with the right tools and information to empower them to make more informed choices about the transition to time-of-use.

An important element in the customer journey to time-of-use is the Standard Smart Tariff (SST). The SST is a simple form of time-of-use tariff, similar to day / night tariffs currently available in the market but with the inclusion of one additional time band, which suppliers are obligated to

[1] Ireland's Transition to a Low Carbon Energy Future, 2015 – 2030 https://www.dccae.gov.ie/en-ie/energy/publications/Documents/2/Energy%20White%20Paper%20-%20Dec%202015.pdf

make available to electricity customers. This requirement was introduced by the CRU in its 'Rolling Out New Services: Time-of-Use' decision paper (CER/15/270) in 2015. The rationale for requiring electricity suppliers to make the SST available to their electricity customers is to ensure electricity customers have a simple form of time-of-use tariff to compare and contrast across electricity suppliers. Moreover, by obligating electricity suppliers to make the SST available, this guarantees electricity customers a minimum level of choice of time-of-use tariff at a relatively early stage in the smart meter upgrade.

In April 2018, the CRU sought views from industry stakeholders, the general public and all other interested parties on the CRU's proposed structure for the SST. Having considered the views of respondents to this consultation, the CRU has decided to adopt the following structure for the SST.

Standard Smart Tariff Decision

The format for the SST which the CRU will obligate electricity suppliers to make available to electricity customers is as follows:

Principle: Suppliers' *Standard Smart Tariff* should seek to promote more efficient use of energy by applying meaningful price differences which reflect the costs borne by the supplier in supplying that customer

Features: A supplier's *Standard Smart Tariff* offering to domestic electricity customers must also have the following features:

a) A three-rate tariff with the following Time Bands (all local time, IST):

   i. Day = 08:00 to 23:00 (excluding 'Peak')

   ii. Night = 23:00 to 08:00 (single night rate)

   iii. Peak = 17:00-19:00

b) Unit rates:

   i. Unit rates across the three periods (time bands) must have meaningful price differences and reflect the costs borne by the supplier in supplying that particular class of customer;

   ii. Unit rates will be limited to a maximum of three and apply to all days over the course of a year

The supported reasoning for the CRU's decision is as follows:

- The decision on the principle outlined above supports SSTs which are simple in structure, providing easy-to-understand signals to customers as to when it is cheaper or more expensive to consume electricity

- The amended approach to that outlined in the consultation ensures that the SST is consistent across suppliers. This will ensure that the SST is simple and comparable for customers across various suppliers in the market. This change is more in-keeping with the spirit of what the ultimate goal of the SST is in the smart meter upgrade

- The CRU has taken on board the comments received from respondents and amended the description of the time-bands to make them easier to understand e.g. changing 'Period 1' to 'Day'

- The use of a relatively small number of standardised time bands is a practical step in enabling an SST to be offered to any customer who has a smart meter, even if that customer's meter is not being read remotely

- The formulation implies a maximum of three unit rates over the course of a year. This represents a change from the position put forward by the CRU in its consultation in April and reflects concerns from respondents that the potential for suppliers to offer SSTs with six unit rates across a year runs the risk of being too complex and therefore confusing for electricity customers

- The CRU has acknowledged these concerns and recognises that many electricity customers currently have difficulty understanding flat-rate tariffs already in the market and, although time-of-use tariffs will give customers the opportunity to save money by shifting consumption to cheaper times of the day, a move to six rates across a year may be too big a leap for electricity customers early in the rollout

- The CRU considers the simplified structure of the SST to be an important tool for electricity customers in the transition to time-of-use tariffs and will assist in making the SST easier to understand

- However, the CRU intends to review the structure of the SST before the conclusion of Phase Two of the Smart Meter Upgrade (Q4 2022) with a view to ascertaining if a change in the unit rates structure is warranted to account for different types of day e.g.

weekend or summer days. This will be based on the level of customer awareness and engagement with the SST

Next Steps

The CRU's decision on the SST represents an important deliverable for the CRU's package of work related to smart metering in 2018. This decision will provide clarity and certainty for electricity customers, electricity suppliers and potential new entrants regarding the obligations on electricity suppliers in terms of their individual SST offerings. Setting policy at an early stage allows the CRU to now incorporate decisions made into the overall regulatory framework in time for the 'go-live' of smart services currently scheduled for Q4 2020. The CRU expects work to conclude on the review of the Supplier Handbook by end of 2019 which provides suppliers with approximately 12 months to make the necessary IT and back-office changes to be ready to offer smart services to energy customers in 2020.

In addition, the CRU now expects to undertake the remaining work items regarding time-of-use earmarked for 2018 - specifically time-of-use 'Go Active.' The CRU expects to seek the views of industry, member of the public and all other interested parties in the coming months with a view to concluding this work by Q4 2018.

Public / Customer Impact Statement

Upgrading existing electricity meters to “smart” meters will bring many benefits for energy customers by empowering customers to make more informed choices regarding their energy needs and also making new products and services available in the market. One of the primary benefits of the smart meter upgrade is making time-of-use tariffs available to all electricity customers. Currently, time-of-use tariffs are only available to those customers with a special day / night meter. Smart meters will make time-of-use pricing available to all electricity customers and eventually these tariffs will become the norm.

A standard approach to time-of-use tariffs will facilitate customers comparing offers between suppliers, and understanding how their consumption patterns will affect their electricity bills. Therefore, the CRU has introduced an obligation on suppliers to make available a Standard Smart Tariff (SST) to all electricity customers. The SST will act as a simple form of time-of-use tariff, consistent across electricity suppliers which electricity customers can compare. The relative simple nature i.e. time-bands, unit rates, etc. will make the SST easier for customers to understand. This also ensures a minimum choice for domestic electricity customers once smart meters are rolled out. This does not preclude suppliers from offering a range of alternative time-of-use tariffs to customers.

The SST is simple in structure and will provide easy-to-understand signals to domestic electricity customers when it is cheaper to consume electricity. This will ensure that these customers can compare and contrast the SST across suppliers and also be free to shift some of their electricity usage to cheaper times of the day, potentially saving money on their bills. The SST will be made available to all customers, whether or not they share their more detailed meter readings with their supplier on a daily basis.

The decision introduced by the CRU obligates suppliers to make available an SST which is simpler in structure than originally proposed in the CRU’s consultation. This reflects concerns from some respondents that by introducing too much flexibility in the SST, this may make it more confusing for electricity customers and therefore lead them to make bad choices. Therefore, the CRU has decided that the SST will be limited to one type of day and limited to three time-bands across a year rather than potentially six. This should assist electricity customers in understanding a supplier’s SST and help them make the right choice for their energy needs.

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1. Introduction

1.1 Background – The Smart Meter Upgrade

The smart meter upgrade is a project to transform how electricity and gas retail markets operate. Older, mechanical electricity and gas meters will be replaced with updated digital meters. These updated meters will provide many benefits for energy customers by eliminating the need to use estimated meter readings, making new products and services available (e.g. time-of-use tariffs) and also empower customers to make more informed choices regarding their energy needs by providing consumers with more granular information about their consumption. The upgrade to smart meters will also provide more information to the network companies to allow them better manage the grid and ensure security of supply.

The CRU'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[2] provisions for the rollout of smart meters in Member States. The CRU, working closely with key project stakeholders, conducted further analysis on the design of the smart metering solution throughout 2013 and 2014. This culminated in the publication of the High Level Design (HLD) in October 2014. The HLD set out the broad parameters of the overall design of smart electricity and gas meters in Ireland.

Following the publication of the smart metering HLD, the CRU undertook a programme of work over the course of 2015 and 2016 which sought to develop consumer policy in a number of areas namely the transition to time-of-use tariffs, smart prepayment (Smart PAYG) and the provision of information to consumers. A number of outstanding policy issues to be delivered by way of 'guidelines' were parked at the conclusion of this phase. These guidelines were earmarked for completion by the CRU in 2017 however due to delays in the project; these were pushed out to 2018.

The CRU incorporated the outstanding policy items into its work plan for 2018 following the adoption of ESB Networks' phased approach to delivering the smart metering High Level Design approved in 2017 and this decision on the SST represents a significant deliverable in the CRU's 2018 work plan. Following this decision on the SST, the CRU expects to conclude the wider package of work before the end of 2018.

[2] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0072&from=EN

1.2 Related Documents

- Decision on the Rollout of Electricity and Gas Smart Metering (CER/12/008)
- Smart Metering High Level Design (CER/14/046)
- 'Rolling out new Services: Time-of-Use Tariffs' Decision Paper (CER/15/270)
- 'Update on the Smart Meter Upgrade' Information Paper (CER/17/279)
- 'Standard Smart Tariff Proposed Guideline' Consultation Paper (CRU/18/084)

2. The 'Standard Smart Tariff'

2.1 Transitioning to Time-of-Use

The CRU has decided not to adopt a 'one-size fits all' approach to the introduction of time-of-use tariffs and has put in place requirements and obligations on suppliers to take primary responsibility for engaging and educating domestic electricity customers regarding their transition to time-of-use tariffs. These requirements and also the wider parameters for electricity customers transition to time-of-use were decided on by the Commission for Regulation of Utilities (CRU) in its 'Rolling Out New Services: Time-of-Use' decision paper (CER/15/270)[3] in 2015 following extensive analysis and public consultation and are demonstrated as follows:

- Suppliers must take reasonable and effective steps to migrate all relevant residential and smaller business customers to an appropriate time-of-use tariff in a timely manner

- Suppliers may offer a customer a time-of-use tariff from a date designated by the Supplier as "ToU Go Active" for that customer. The date designated as "ToU Go Active" by the Supplier in respect of a customer shall be consistent with any Guideline set out by the CRU[4]

- A Supplier must have available a time-of-use tariff for any customer for whom more than 12 months has elapsed since their "ToU Go Active" date. For residential customers, this shall include (and may be limited to) a Supplier's SST. The SST offered to residential customers shall be consistent with any Guideline set out by the CRU

- A Supplier must provide, at least once every twelve months, a prompt to each customer not on a time-of-use tariff for the purpose of promoting understanding, acceptance and adoption of Time-of-Use Tariffs. The prompt shall make appropriate and relevant use of information of the customer's consumption patterns held by the Supplier as applied to the range of time-of-use tariffs offered by the Supplier. The form, content and duration for such prompts shall be consistent with any Guideline set out by the CRU[5]

- The CRU will, subject to market monitoring during the course of the rollout, issue a direction to commence a window and set an end date by which Suppliers must have

[3] *'Rolling Out New Services: Time-of-Use Tariffs'* https://www.cru.ie/wp-content/uploads/2015/07/CER15270-Time-of-Use-Tariffs.pdf
[4] The approach to 'ToU Go Active' will be completed by the CRU in late 2018
[5] The approach the ToU Prompt will be completed by the CRU in late 2018

concluded the process of removing tariffs other than time-of-use tariffs from the market. The SST will act as the default time-of-use tariff remaining customers will transition to. The direction may also make provisions for exemptions or derogations.

An important element in the smart meter upgrade is the transition to time-of-use tariffs for domestic electricity customers. However, the Phased Approach to the upgrade allows opportunities for all stakeholders to gain learnings regarding aspects of the upgrade at the conclusion of each phase. Therefore, the CRU will keep its timelines for implementation of these principles under review but considers it prudent that the timelines for implementation of the SST remain in order to ensure domestic electricity customers can avail of time-of-use during Phase Two.

2.2 What is the Standard Smart Tariff?

The SST is a form of time-of-use tariff which all suppliers are obligated to make available to domestic electricity customers similar to day / night tariffs currently available in the market but with the inclusion of one additional time-band. The SST will act as a simple form of time-of-use tariff, consistent across electricity suppliers which electricity customers can compare. The relative simple nature i.e. time-bands, unit rates, etc. will make the SST easier for customer to understand.

It should be noted also that electricity customers will not be mandated to take up a time-of-use tariff once they receive their meter upgrade but by obligating suppliers to make the SST available, this guarantees a minimum choice of time-of-use tariffs for electricity customers at a relatively early stage in the rollout. Suppliers will also be free to offer alternative time-of-use tariffs and approaches in tandem with the SST if desired. This will ensure neither competition nor innovation in the market are restricted.

For those customers who do not wish to share their more detailed meter readings with their supplier, the SST can still be made available to these customers should they wish to avail of the benefits of a time-of-use tariff.

2.3 The Standard Smart Tariff Decision

The decision the CRU is introducing in respect of the Standard Smart Tariff that a supplier must offer is as follows:

Principle: Suppliers' *Standard Smart Tariff* should seek to promote more efficient use of energy by applying meaningful price differences which reflect the costs borne by the supplier in supplying that customer.

Features: A supplier's *Standard Smart Tariff* offering to domestic electricity customers must also have the following features:

a) A three-rate tariff with the following Time Bands (all local time, IST):
   i. Day = 08:00 to 23:00 (excluding Peak)
   ii. Night = 23:00 to 08:00 (single night rate)
   iii. Peak = 17:00-19:00

b) Unit rates - core:
   i. Core unit rates across the three periods (time bands) must have meaningful price differences and reflect the costs borne by the supplier in supplying that particular class of customer;

   ii. Unit rates will be limited to a maximum of three and apply to all days over the course of a year

The rationale for the CRU's decision is as follows:

- The formulation supports SSTs which are simple in structure, providing easy-to-understand signals to customers as to when it is cheaper or more expensive to consume electricity

- The amended approach to that outlined in the consultation ensures that the SST is consistent across suppliers. This will ensure that the SST is simple and comparable for customers across various suppliers in the market. This change is more in-keeping with the spirit of what the ultimate goal of the SST is in the smart meter upgrade

- One respondent recommended that the CRU amend its description of the SST's time-bands to make them more meaningful to electricity customers. The CRU has taken on board the comments received from respondents and amended the description of the time-bands to make them easier to understand e.g. changing 'Period 1' to 'Day' Electricity suppliers will be required to use these descriptions when offering their respective SSTs.

- The use of a relatively small number of standardised time bands is a practical step in enabling an SST to be offered to any customer who has a smart meter, even if that customer's meter is not being read remotely

- Two respondents recommended a change to the Day time period from 08.00 as proposed in the consultation to 07.00 in order to mimic the Mid-Merit 1 and Mid-Merit 2 time periods in wholesale. However, the 08.00 time band for 'Day' more closely reflects the time periods associated with the retail market currently and moreover, this does not reduce the 'Night' time band by an additional hour which would be the result of moving 'Day' period to 07.00

- Further, the decision for the 'Day' time period to start at 08.00 is also consistent with the time periods utilised in the Electricity Customer Behaviour Trials

- The formulation implies a maximum of three unit rates over the course of a year. This represents a change from the position put forward by the CRU in its consultation in April and reflects concerns from respondents that the potential for suppliers to offer SSTs with six unit rates across a year runs the risk of being too complex and therefore confusing for electricity customers

- The CRU has acknowledged these concerns and recognises that many electricity customers currently have difficulty understanding tariffs already in the market[6] and, although time-of-use tariffs will give customers the opportunity to save money by shifting consumption to cheaper times of the day, a move to six rates across a year may be too big a leap for customers early in the rollout and result in confusion

- Further, based on the findings of the electricity customer behaviour trials conducted by the CRU, electricity customers will still have the ability to reduce peak consumption and overall usage and therefore save money. The customer behaviour trials resulted in electricity customers on a three rate tariff being able to reduce overall usage by 2.5% and peak time usage by 8.8%[7]

- One respondent argued that the CRU should restrict the peak period and not allow suppliers to set their own peak. The CRU considered the views put forth by the

[6] *"Irish residential consumers understanding of pricing structures within the energy market is low.."* Electricity & Gas Retail Markets Annual Report 2017 *https://www.cru.ie/wp-content/uploads/2018/07/CRU18126-2017-Electricity-and-Gas-Retail-Markets-Annual-Report.pdf*

[7] Electricity Smart Metering Customer Behaviour Trials Report (CRU/11/080a) https://www.cru.ie/wp-content/uploads/2011/07/cer11080ai.pdf

respondent and agrees with the rationale presented. By restricting the peak period to one uniform time-band, this will make the SST consistent across suppliers and also easier for customers to understand and compare

- Further, day / night meters which provide customers with two different time-bands exist in the market today with approximately 12% of customers on day / night tariffs. In addition, evidence from the CRU's consumer survey illustrates that there is a growing appetite for time-of-use offerings in the market with 36% of customers stating they would consider switching if a supplier was offering electricity at cheaper times of the day.[8] Therefore, provided with appropriate tools and supports and by amending the proposal to make the SST more consistent across suppliers, the CRU anticipates that customers will be willing and capable of differentiating between suppliers' SST offerings

- Moreover, revised rules on how tariffs are presented to customers to be introduced by the CRU will attempt to assist customers in comparing and contrasting time-of-use tariffs

- Competition is not adversely impacted by the change as electricity suppliers will still be free to make available their own time-of-use tariffs to electricity customers and strengthens the rationale for keeping the SST relatively simple in structure

- The CRU considers the simplified structure of the SST to be an important tool for electricity customers in the transition to time-of-use tariffs and will assist in making the SST easier to understand

- However, the CRU intends to review the structure of the SST before the conclusion of Phase Two of the Smart Meter Upgrade (Q4 2022) with a view to ascertaining if a change in the unit rates structure is warranted to account for different types of day e.g. weekend or summer days. This will based on the level of customer awareness and engagement with the SST and also reflects feedback from one respondent who recommended that the CRU review the structure of the SST at the conclusion of each phase in the meter upgrade

[8] CRU Annual Survey of Residential and SME Customers in the Gas and Electricity Markets in Ireland https://www.cru.ie/wp-content/uploads/2018/04/CRU18071-Residential-and-SME-Electricity-and-Gas-Customer-Survey-Report-Feb-....pdf

3. Conclusion and Next Steps

The CRU's decision on the overall principles and structure of the SST is an important deliverable in the CRU's work plan for 2018 and the preparatory policy regarding the smart meter upgrade. The SST is a crucial element of electricity customers' transition to time-of-use and that is why it is crucial that it remain a simple, consistent for of time-of-use tariff that electricity customers can engage with and benefit from.

The decision introduced by the CRU represents a refinement of the proposal put forward in its consultation, taking into consideration the views of some respondents that the SST should not be overly complex. Therefore, the CRU has decided that the unit rates will be limited to three across a year in order to simplify the SST for electricity customers when they are comparing and contrasting the SST across different suppliers while at the same time ensuring customers can still benefit by saving money by shifting some of their consumption to times of the day when electricity is cheaper.

It should be noted also that electricity customers will not be mandated to take up a time-of-use tariff once they receive their meter upgrade but by obligating suppliers to make the SST available, this guarantees a minimum choice of time-of-use tariffs for electricity customers at a relatively early stage in the rollout. Suppliers will also be free to offer alternative time-of-use tariffs and approaches in tandem with the SST if desired. This will ensure competition is not adversely impacted.

The CRU's wider work plan for 2018 will address a number of key policy areas regarding the smart meter upgrade and bring to a conclusion the CRU's preparatory work to update consumer policy in advance of the smart meter upgrade. Setting policy at an early stage ensures that all appropriate requirements and obligations governing interactions between suppliers and energy customers can be reflected in the overall regulatory framework in time for smart metering 'go-live' for Phase One – currently set to be Q4 2020.

In addition, setting policy now also provides regulatory certainty for suppliers currently operating in the market and for potential new entrants. The CRU expects to complete all of the outstanding preparatory work for the smart meter upgrade including the 'Go Active' guideline by the end of 2018. The policy decisions pertaining to smart metering will then be reflected in the Supplier Handbook in 2019 in time for the 'go-live' of smart services in Q4 2020.

Appendix A

Responses to Consultation

Summary

This section documents the responses submitted to the CRU's consultation paper on the SST consultation published in April 2018. The purpose of the consultation was to seek input from industry, members of the general public and any other interested parties regarding the CRU's proposed structure for the SST with a view to informing the CRU's overall decision.

The CRU received six responses to the SST consultation and the CRU wishes to thank all respondents for taking the time to submit their feedback to the consultation paper. Respondents provided important input to the consultation which informed the CRU's final decision. However, a number of comments received from respondents were ultimately considered out of scope for this particular consultation and were more general comments on the approach to the Smart Meter Upgrade. The CRU intends to engage with each respondent individually on these comments following the publication of this decision and provide responses directly to those respondents.

Responses Received

Category of Response	Respondents
Supplier	Electric Ireland, SSE Airtricity, Energia, and PrePay Power
Networks	ESB Networks
Energy Authority	Sustainable Energy Authority of Ireland

Key Themes

Consultation Question: Do you have any comments on the CRU's proposed principle, outlined in the principle section, which the Standard Smart Tariff must adhere to or any other points which you consider relevant to this requirement?

- In general, respondents were supportive of the principle of the SST being a simple, consistent form of time-of-use tariff which electricity customers could engage with

- A number of respondents supported the flexible approach adopted by the CRU

Consultation Question: Do you have any comments on the CRU's proposed Time Bands to be incorporated into the Standard Smart Tariff or any other points which you consider relevant to this requirement?

- Respondent Comment: A number of respondents expressed concern at the potential complexity of the SST and recommended restricting the SST to three unit rates across a single year

- CRU View: The CRU acknowledged these concerns and amended the requirement in its decision

- Respondent Comment: One respondent recommended amending the description of the individual time-bands to make them more reader / user friendly and easier to understand

- CRU View: The CRU has amended the requirement to reflect this feedback

- Respondent Comment: Two respondents recommended changing the time-band for Day Off-Peak to commence at 07.00 in instead of 08.00 to reflect time periods for Mid-Merit 1 and Mid-Merit 2 in wholesale

- CRU View: The CRU acknowledges the feedback however the time period proposed more accurately reflects the time bands utilised in the Electricity Customer Behaviour Trials and also reflects the time period associated with the retail market currently e.g. Day / Night customers

Consultation Question: Do you have any comments on the CRU's proposed approach to the core unit rates for the Standard Smart Tariff or any other points which you consider relevant to this requirement?

- Two respondents recommended limiting the SST to core unit rates with no scope to include optional unit rates i.e. limit the SST to three rates applicable to one type of day across a single year in order to make the SST simpler for electricity customers to understand

Consultation Question: Do you have any comments on the proposed optional unit rates for the Standard Smart Tariff or any other points which you consider relevant to this requirement?

- Two respondents recommended limiting the SST to core unit rates with no scope to include optional unit rates i.e. limit the SST to three rates applicable to one type of day across a single year in order to make the SST simpler for electricity customers to understand

Out of Scope Comments

A number of comments received from respondents were ultimately considered out of scope for this particular consultation and were more general comments on the approach to the Smart Meter Upgrade. The CRU intends to engage with each respondent individually on these comments following the publication of this decision and provide responses directly to those respondents.

- A number of respondents emphasised the importance of initiating an extensive campaign to engage energy customers and promote awareness of time-of-use and smart meters in general in order to complement the meter upgrade

- Some respondents requested clarity on how the phasing out of flat-rate tariffs will take place later in the rollout with one respondent requesting a roadmap be developed to provide clarity to suppliers and allow them to plan accordingly

- A number of respondents recommended that, in order to complement the transition to time-of-use, a review of distribution use of system charges (DUoS) is initiated in tandem with the preparatory work on smart metering. DUoS charges are a charge levied on your electricity supplier by the network operator for use of the electricity distribution system

- A number of respondents requested more clarity from the CRU on when electricity suppliers can offer time-of-use tariffs and when electricity suppliers will be required to make the SST available to electricity customers i.e. ToU ‘Go-Active’ process

- Some respondents requested more information from the CRU on how the SST will be made available to those customers who decide not to provide their more detailed meter readings

- Two respondents requested that a worked example of the structure of the SST be provided to assist in understanding how the SST is constituted. The CRU will engage bilaterally with those respondents on this request and may provide some worked examples. An example may also be provided for illustrative purposes in the updated Electricity & Gas Supplier Handbook in 2019

- One respondent queried the approach to the Smart Meter Upgrade and the Phased Approach to rollout requesting more clarity on how the transition between phases will be managed

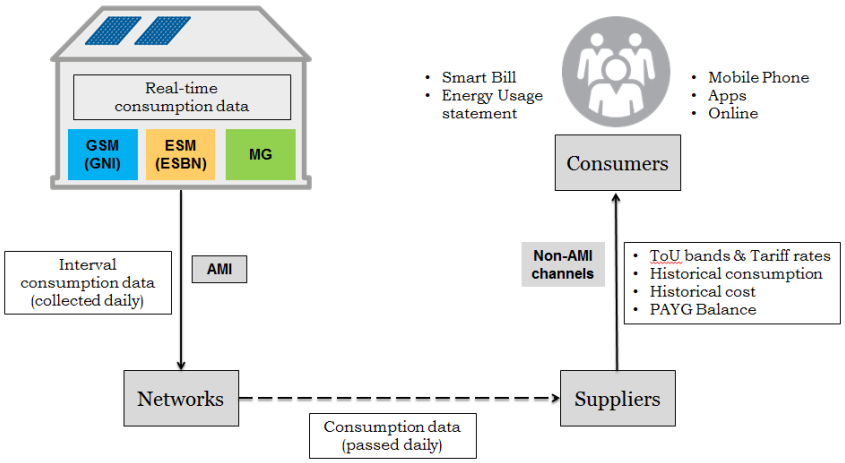
Appendix B

What is a 'smart meter?'

A smart meter is a meter capable of remote, two-way communication and the ability to retrieve meter readings remotely. This contrasts with traditional meters, which can only be read manually, through visual inspection.

Smart meters therefore have greater functionality than traditional meters. This corresponds to more, and better, information being available to customers about their individual energy usage. It also facilities new types of tariffs, including for demand customers who also have micro-generation. This additional functionality therefore has relevance to policy agendas relating to competition, energy efficiency and renewables.

A smart metering system comprises a population of installed smart meters and a means of communicating with them. The means of communication also includes the facility to securely deliver metering data into the home or premise in near real-time. There is a difference between a smart meter, and devices with similar functionality installed on the customer's side of the official "meter-of-record". The key difference is that such devices are not used as a source of data for calculation of wholesale and network charges.



Smart metering system designs can be "thick" or "thin". The distinction relates to how much information is held and processed on the meter itself, or in back-office systems once the "raw" data has been retrieved. The smart metering design is a "thin" design. This choice affects cost and flexibility. It can also affect some aspects of customer experience. To illustrate, "thin" prepayment customers have their account balances updated less frequently and access their balance information from their Supplier (e.g. in a text message) rather than by looking at the meter.

Smart meters are also intrinsic to the development of the smart grid by making it easier to detect losses and facilitating better network planning.

Appendix C

Timetable for Rollout of Smart Metering