



An Coimisiún
um Rialáil Fóntais
**Commission for
Regulation of Utilities**

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Commission for Regulation of Utilities

Smart Meter Upgrade

The Customer-Led Transition to Time-of-Use

Decision Paper

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Executive Summary

Smart meters are the next generation of electricity and gas meter and are being rolled out across Europe and internationally. This move to upgraded digital meters will provide customers with better and more accessible information about energy consumption, access to new tariffs and services and do away with the use of estimated meter reads. 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 are also an important part of the European Commission's 'Clean Energy for All Europeans' package (CEP) of legislation which entitles customers to a smart meter with a minimum set of functionalities.

The transition to time-of-use 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 the electrification of heating and the growth in the use of electric vehicles. Time-of-use will incentivise customers to shift consumption to times of the day when electricity is cheaper, enabling them to potentially save money. Smart meters will facilitate the introduction of more renewables and microgeneration. The shift in consumption patterns should also reduce the requirement to increase investment in the grid and more peak generation capacity.

Being Time-of-Use Ready - 'Time-of-Use Primer'

In October 2018, the CRU published 'The Customer-Led Transition to Time-of-Use' ([CRU/18/233](#)) consultation paper which sought views from interested stakeholders and members of the public on proposals regarding when and how electricity suppliers can offer time-of-use tariffs to electricity customers. Proposals put forward by the CRU would require electricity suppliers to provide a 'Time-of-Use Primer' to electricity customers to assist them in their transition to time-of-use. The CRU has considered the views of respondents and its decision is as follows:

- Once smart services 'go-live,' an electricity supplier must have available a time-of-use tariff for electricity customers, this can be limited to a supplier's Standard Smart Tariff².

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>

² The Standard Smart Tariff is a simple form of time-of-use tariff similar to the current day / night tariffs available in the market with one additional time-band. For more information on the Standard Smart Tariff please see the CRU's 'Standard Smart Tariff' decision paper ([CRU/18/18164](#))

- A supplier must provide the customer (who had a smart meter installed) with a ‘Time-of-Use Primer,’ through an appropriate channel of communication, no later than six months post smart services ‘go-live’ at the end of Phase One³.
- For those customers who receive their smart meter three months after smart services ‘go-live,’ then the supplier must provide the ‘Time-of-Use Primer’ no more than three months after their meter install.
 - The ‘Time-of-Use Primer’ must be communicated in simple, jargon free terms which provides the customer with a clear overview of:
 - i. How time-of-use tariffs work in general and;
 - ii. The wider benefits of time-of-use

In addition, the ‘Time-of-Use Primer’ should include one of the following:

- iii. How the supplier’s time-of-use tariffs are structured e.g. Day, Night, Peak, etc., applicable unit rates and if this time-of-use tariff could potentially benefit the customer
 - or-
 - iv. How the customer can contact their electricity supplier for more detailed information on time-of-use and the time-of-use tariffs offered by that supplier
- Electricity suppliers may use any generic ‘Time-of-Use Primer’ which will be developed by the CRU and/or the Sustainable Energy Authority of Ireland (SEAI).
 - The requirement on electricity suppliers to issue the ‘Time-of-Use Primer’ will cease at the end of 2025.

Time-of-Use Reminder

The CRU has also considered the views of respondents with regard to the CRU’s proposed content and timings of the ‘Time-of-Use Reminder. The CRU’s decision is as follows:

- Electricity suppliers must contact electricity customers, who have a smart meter, but have not switched to time-of-use 12 months after receiving the ‘Time-of-Use Primer.’ This contact, through an appropriate channel, should promote awareness, understanding and the benefits of time-of-use.

³ See Appendix F for more information regarding the timelines of the ‘Phased Approach’ to the rollout of smart meters and functionality associated with each phase.

- After each subsequent 12-month period, the electricity supplier must contact those customers who have not transitioned to time-of-use.
- Where customers have not switched to time-of-use, the supplier must make best use of available information on a customers' consumption pattern in order to make this engagement as relevant and tailored as practicable.

Managing the Introduction of Time-of-Use Tariffs

The CRU also put forward proposals to make the transition to time-of-use simpler for electricity customers in the early stages of the smart meter rollout. Proposals put forward by the CRU in its consultation would place a transitional limit on the amount of time-of-use tariffs electricity suppliers could offer electricity customers. The CRU has considered the views of respondents and its decision is as follows:

- Electricity suppliers' time-of-use tariff offerings to domestic electricity customers will be limited to four (including each supplier's Standard Smart Tariff).
- This limit applies to a supplier's time-of-use tariff offerings to domestic electricity customers. Electricity suppliers are permitted to offer discounts on these tariffs. For example, an electricity supplier's Standard Smart Tariff and a Standard Smart Tariff with a sign-up discount for new customers is classed as one tariff, not two. The transitional limit does not include dynamic tariffs⁴.
- The number of time-of-use tariff offerings can be increased from four to a maximum of eight at the end of Phase Two.
- This limit is a transitional measure and, failing any intervention by the CRU, the limit will cease at the end of Phase Three. Any changes to this policy will be based on public consultation and will provide sufficient time for electricity suppliers to plan and prepare.

Next Steps

The CRU's decision on the Customer-Led Transition to Time-of-Use is an important milestone for the project and represents the final element of the CRU's preparatory policy work in advance of smart services 'go-live' at the end of Phase One. These decisions will provide clarity and certainty for electricity customers, electricity suppliers and potential new entrants regarding how and when electricity suppliers must offer time-of-use to customers. Setting policy at an early stage allows the CRU to now incorporate decisions made into the Electricity & Gas Supplier Handbook. The CRU will work closely with suppliers, consumer interest groups and other

⁴ A dynamic tariff is a tariff where the price can change every 30 minutes in-line with the wholesale market price.

stakeholders on the implementation of these decisions in time for smart services 'go-live' at the end of Phase One.

Public / Customer Impact Statement

Upgrading existing electricity meters to “smart” meters will bring many benefits for energy customers. It will empower 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.

How and when electricity customers move to time-of-use is an important part of the introduction of smart meters. The CRU in this decision is introducing new rules for how electricity suppliers help customers move to time-of-use. Firstly, electricity suppliers must give customers a ‘Time-of-Use Primer.’ The ‘Time-of-Use Primer’ will give useful information such as how time-of-use tariffs work. It will also explain the other benefits of time-of-use in order to build electricity customers’ awareness and understanding of time-of-use.

Also, the CRU in this decision is making sure that, over time, electricity suppliers will engage with any customers who have not moved to time-of-use. This means those customers, will be given useful information to promote awareness, understanding and the benefits of time-of-use. Giving information to electricity customers in this way also means that suppliers can learn over time and improve the way they inform customers.

Finally, there will be a limit on the number of time-of-use tariffs electricity suppliers can offer at the start. This means that there won’t be too many different types of tariffs for customers to compare when choosing a tariff. This will make it easier for customers to get used to time-of-use tariffs. It will also help to make sure that customers don’t make bad choices as they get used to these types of tariffs and this is an important step.

Table of Contents

Executive Summary	1
Public / Customer Impact Statement	5
Table of Contents	6
1. Introduction.....	8
1.1 Background – The Smart Meter Upgrade.....	8
1.2 Related Documents.....	9
2. Being Time-of-Use Ready	10
2.1 Why is Time-of-Use Important?	10
3. ‘Time-of-Use Primer’ Decision.....	11
4. Time-of-Use Reminder Decision.....	14
5. Managing the Introduction of Time-of-Use Tariffs.....	16
6. Conclusion and Next Steps	19
Appendix A	20
Responses to Consultation Summary.....	20
Responses Received	20
Key Themes	20
Appendix B	23
Transition to Time-of-Use, Reflecting Decisions.....	23
Appendix C	25
What is a ‘smart meter?’	25
Appendix D	27
Profile of Consumption	27
Appendix E	29
Glossary of Terms.....	29
Appendix F.....	31

Timetable for Rollout of Smart Metering 31

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 Directive⁵ 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 to be procured by ESB Networks and Gas Networks 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.

Following the approval of ESB Networks' 'Phased Approach' for delivering the HLD in September 2017, the CRU incorporated the outstanding policy issues into its workplan in 2018. This decision on the 'Customer-Led Transition to Time-of-Use' represents the final element of the CRU's preparatory policy work in advance of smart services 'go-live' at the end of Phase One. The CRU will now undertake a programme of work to review the Electricity & Gas Supplier

⁵ <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32009L0072&from=EN>

Handbook in order to transpose the suite of smart metering policy decisions into the Handbook. The CRU will work closely with suppliers, consumer interest groups and other stakeholders to ensure that the transposition of the smart metering policy decisions is done in a timely manner. Electricity and gas suppliers will then be required to undertake updates to their systems to comply with these decisions by the time smart services 'go-live' at the end of Phase One.

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](#))
- 'The Customer-Led Transition to Time-of-Use' Consultation Paper ([CRU/18/233](#))

2. Being Time-of-Use Ready

2.1 Why is Time-of-Use Important?

The transition to time-of-use 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 the electrification of heating and the growth in the use of electric vehicles. Time-of-use will incentivise customers to shift consumption to times of the day when electricity is cheaper, enabling them to potentially save money. Smart meters will facilitate the introduction of more renewables and microgeneration. The shift in consumption patterns should also reduce the requirement to increase investment in the grid and more peak 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 (night) 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 electricity customers and eventually these tariffs may become the norm as stated by the CRU in 2015 in its 'Rolling out new Services: Time-of-Use Tariffs' Decision Paper (CER/15/270).

Moreover, analyses undertaken by the CRU through its annual Consumer Survey shows that there is a growing appetite among electricity customers for time-of-use.⁶ Results demonstrate that out of those customers surveyed who expressed an opinion, more electricity customers (36%) would consider switching to time-of-use if it were available than those customers who would not consider switching (34%).

Time-of-use pricing will represent a change for the majority of electricity customers and therefore the transition to time-of-use must be handled carefully. Policy has an important role to play in this regard to ensure that electricity customers are provided with sufficient information regarding time-of-use in order to empower them to make informed choices. Therefore, the CRU has put forward new requirements with regard to when and how electricity suppliers make available time-of use to their customers.

⁶ 'CRU Annual Survey of Residential and SME Customers in the Gas and Electricity Markets in Ireland 2017' ([CRU/18/071](#))

3. 'Time-of-Use Primer' Decision

Being Time-of-Use Ready

In its consultation published in October 2018, the CRU put forward proposals with regard to the format and timing of what is known as the 'Time-of-Use Primer.' The CRU has considered the views of respondents and is confirming some elements of its proposal in the consultation. However, the CRU is also refining its decision and providing clarifications.

The decision the CRU is introducing in respect of the 'Time-of-Use Primer' is as follows:

- Once smart services 'go-live,' an electricity supplier must have available a time-of-use tariff for electricity customers, this can be limited to a supplier's Standard Smart Tariff
 - A supplier must provide the customer (who had a smart meter installed) with a 'Time-of-Use Primer,' through an appropriate channel of communication, no later than six months post smart services 'go-live' at the end of Phase One.
 - For those customers who receive their smart meter three months after smart services 'go-live,' then the supplier must provide the 'Time-of-Use Primer' no more than three months after their meter install.
 - The 'Time-of-Use Primer' must be communicated in simple, jargon free terms which provides the customer with a clear overview of:
 - i. How time-of-use tariffs work in general and;
 - ii. The wider benefits of time-of-use
- In addition, the 'Time-of-Use Primer' should include one of the following:
- iii. How the supplier's time-of-use tariffs are structured (for example Day, Night, Peak, etc.), the applicable unit rates and if this time-of-use tariff could potentially benefit the customer
 - or-
 - iv. How the customer can contact their electricity supplier for more detailed information on time-of-use and the time-of-use tariffs offered by that supplier
- Electricity suppliers may use any generic 'Time-of-Use Primer' which will be developed by the CRU and/or the SEAI.
 - The requirement on electricity suppliers to issue the 'Time-of-Use Primer' will cease at the end of 2025.

The rationale for the CRU's decision on the 'Time-of-Use Primer' is as follows:

- The 'Time-of-Use Primer' will allow the electricity customer to gain access to clear and simple information about a particular time-of-use tariff they may want to sign-up to and also more general information regarding time-of-use and its wider benefits. For example, environmental, system and wholesale market benefits.

- Evidence from the Electricity Smart Metering Customer Behaviour Trials⁷ shows that helpful information on time-of-use can assist electricity customers. For example, 75% of participants found a fridge magnet with time-bands and associated unit rates useful with 63% finding a sticker displaying only the time-bands useful. This shows that getting good, accurate information to electricity customer may assist them in making better choices regarding their energy needs.
- A similar approach is adopted for those customers who avail of an ESB Networks prepayment meter which provides the customer with simple, jargon free information regarding how to utilise the prepayment meter⁸.
- The six-month window for suppliers to provide the 'Time-of-Use Primer' following the 'go-live' of smart services at the end of Phase One allows electricity suppliers to manage the provision of the 'Time-of-Use Primer' and ensure quality of service and also ensures electricity customers are provided with this information shortly after smart services 'go-live' at the end of Phase One.
- The CRU is also providing flexibility to electricity suppliers by allowing the 'Time-of-Use Primer' to be aligned with the provision of other customer communications (for example the 30 Days' Notice). However, if this approach is not working for customers then the CRU will amend its approach to ensure a better outcome for customers.
- This decision also allows electricity suppliers to be flexible in how they communicate the 'Time-of-Use Primer.'
- The CRU does not consider this marketing material and the 'Time-of-Use Primer' is there to inform and empower customers in a changing market. The CRU would also highlight that the 'Time-of-Use Primer' will be complemented by a wider awareness and engagement programme regarding smart meters being led by ESB Networks. The CRU will also undertake work to inform customers regarding the Smart Meter Upgrade.
- Notwithstanding this, the CRU is introducing flexibility for electricity suppliers which reflects feedback received in the consultation. This change will make the 'Time-of-Use

⁷ 'Electricity Smart Meter Customer Behaviour Trials (CBT) Findings Report' ([CRU/11/080a](#))

⁸ '[How to use a Pay As You Go Meter installed by ESB Networks](#)'

Primer' more generic and allow the electricity customer to initiate contact with their electricity supplier to get more information on time-of-use.

- The introduction of the option to request any generic 'Time-of-Use Primer' developed by the CRU and/or the SEAI reflects feedback to the consultation and provides electricity suppliers with another option in terms of the provision of the 'Time-of-Use Primer' to electricity customers.

- Finally, the requirement on electricity suppliers to issue the 'Time-of-Use Primer' will cease at the end of 2025.

4. Time-of-Use Reminder Decision

An important element of the transition to time-of-use is ensuring a certain amount of flexibility for how electricity customers take-up time-of-use and for how electricity suppliers encourage customers to move to time-of-use. In addition, it is important to note that it is not likely that all electricity customers will quickly move to time-of-use, for a number of reasons. Therefore, in 2015, the CRU introduced an obligation on electricity suppliers to provide additional information to support electricity customers' transition to time-of-use by-way of a 'Time-of-Use Reminder.' In its consultation in October 2018, the CRU put forward proposals and sought views on the format of this 'Time-of-Use Reminder.' The CRU is confirming its decision with regard to the 'Time-of-Use Reminder' and also providing clarifications.

The decision the CRU is introducing in respect of the 'Time-of-Use Primer' is as follows:

- Electricity suppliers must contact electricity customers, who have a smart meter, but have not switched to time-of-use 12 months after receiving the 'Time-of-Use Primer.' This contact, through an appropriate channel, should promote awareness, understanding and the wider benefits of time-of-use.
- After each subsequent 12-month period, the electricity supplier must contact those customers who have not transitioned to time-of-use.
- Where electricity customers have not switched to time-of-use, the supplier must make best use of the customers' consumption pattern in order to make this engagement as relevant and tailored as practicable.

The rationale for the CRU's decision on the 'Time-of-Use Reminder' is as follows:

- Analysis conducted by the CRU evidences that "levels of knowledge and awareness across customers in terms of tariff structures, energy offers and bill configuration are low"⁹ in the retail market. It will be important therefore that those customers who remain unaware about the benefits of time-of-use are engaged with.
- The CRU's decision ensures that customers are also provided with information which seeks to make them aware and assists in understanding how time-of use could benefit them in a changing market.
- The CRU's decision on the 'Time-of-Use Reminder' provides electricity suppliers with flexibility in how they develop, populate and communicate this engagement with electricity customers. The CRU expects that suppliers will gain more understanding of

⁹ 2017 Electricity & Gas Retail Markets Annual Report ([CRU/18/126](#))

their electricity customers consumption pattern and their ability to make the 'Time-of-Use Reminder' more engaging over time.

- The CRU is also clarifying that should an electricity customer, who has had a smart meter installed, switch electricity supplier but not sign-up to time-of-use, the winning supplier is required to issue a 'Time-of-Use Primer' to the customer (at a minimum) and a 'Time-of-Use Reminder' 12 months after issuing a 'Time-of-Use Primer.'
- The CRU emphasises that the 'Time-of-Use Reminder' should not be considered marketing and rather is there to inform and empower customers in a changing market.
- Electricity customers will also be able to access their historical consumption information from their electricity supplier via a harmonised downloadable file (HDF) in Phase Two. This will allow customers who may be interested in time-of-use to review their historical consumption to see if time-of-use is right for them. Electricity customers will also be able to request their HDF from ESNB. This is an important tool available to electricity customers which may assist the customer journey to time-of-use.
- The 'Time-of-Use Reminder' will complement a wider awareness and engagement programme regarding the Smart Meter Upgrade in general being led by ESNB. The CRU will also undertake work to inform customers regarding the Smart Meter Upgrade.
- The 'Time-of-Use Reminder' will also complement work to be undertaken by the CRU which will review how tariffs are presented in the context of smart metering and time-of-use.
- The CRU has considered responses to the consultation and is providing clarity that electricity suppliers are permitted to align the 'Time-of-Use Reminder' in terms of timings with other communications (for example the 30 Days' Notice). However, if this approach is not working for customers then the CRU will amend its approach to ensure a better outcome for customers.

5. Managing the Introduction of Time-of-Use Tariffs

Time-of-use in general will lead to benefits for electricity customers as demonstrated in the customer behaviour trials conducted by the CRU in conjunction with ESB Networks, Gas Networks Ireland and the Sustainable Energy Authority of Ireland in 2009-10. These trials demonstrated that those customers who reduced their electricity saved money and those who shifted some of their electricity consumption to times of the day when electricity is cheaper, saved money on their bills also.

In the retail market currently, there is a limited form of time-of-use available to electricity customers. However, to avail of these tariffs, this requires the installation of special type of meter (day / night meter). The Smart Meter Upgrade will extend access to time-of-use to all electricity customers and eventually these tariffs may become the norm as stated by the CRU in its 'Rolling Out New Services' decision paper in 2015.¹⁰

However, the CRU knows that for many electricity customers, time-of-use will represent a significant change and therefore the transition to time-of-use should be gradual and be based on customer choice. The introduction of a large number of time-of-use tariffs in the retail market offered by an ever-increasing number of electricity suppliers could potentially lead to customers disengaging. Therefore, in its consultation published in October 2018, the CRU put forward a proposal to place a transitional limit on the number of time-of-use tariffs could offer domestic customers. The CRU has considered the views of respondents and its decision with regard to managing the introduction of time-of-use is as follows:

- Electricity suppliers' time-of-use tariff offerings to domestic electricity will be limited to four (including each supplier's Standard Smart Tariff).
- This transitional limit to a supplier's time-of-use tariff offerings to domestic electricity customers. Electricity suppliers are permitted to offer discounts on these tariffs. For example, an electricity supplier's Standard Smart Tariff and a Standard Smart Tariff with a sign-up discount for new customers is classed as one tariff, not two. The transitional limit does not include dynamic tariffs.
- The number of time-of-use tariff offerings can be increased from four to a maximum of eight at the end of Phase Two.
- This limit is a transitional measure and, failing any intervention by the CRU, the limit will be removed at the end of Phase Three. Any changes to policy will be based on public consultation and will provide sufficient time for electricity suppliers to plan and prepare.

¹⁰ 'Rolling out new Services: Time-of-Use Tariffs' Decision Paper ([CRU/15/270](#))

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

- Analysis conducted by the CRU has shown that a cohort of customers in the retail market currently struggle to compare and contrast tariffs and also to understand how tariffs are calculated. This could be compounded with the introduction and proliferation of time-of-use if no policy action was taken to assist customers.
- Experiments conducted by the Economic and Social Research Institute (ESRI) shows “that consumers are likely to struggle to make good product comparisons when they have to take multiple attributes into account at the same time....and that in such markets consumers will struggle to find best value, or perhaps even simply to locate reasonable value”¹¹.
- The CRU will also conduct a review to determine if the way suppliers present time-of-use tariffs to customers can be simplified. This will be done in tandem with the transitional limit on time-of-use tariffs and demonstrates the CRU is taking a number of actions to make the transition to time-of-use simpler for electricity customers.
- The CRU has considered the views put forward by respondents and acknowledges the concerns expressed by some respondents regarding the potential impact on competition as a result of this measure. Therefore, the CRU is adjusting the restrictions by introducing a glidepath which will permit electricity suppliers to increase the number of time-of-use tariff offerings from four to a maximum of eight at the end of Phase Two. The CRU considers this strikes the right balance in terms of customer protection and flexibility for suppliers. The CRU will consider potential new developments in terms of microgeneration in Phase Three to ascertain if policy is required to address this.
- The CRU can clarify that the transitional limit does not include dynamic tariffs (tariffs where the price can change every 30 minutes in-line with the wholesale market price).

The transitional limit applies specifically to tariff structures. For example, the transitional limit does not include urban or rural tariff offerings, sign-up discounts (for example 10% off a standard unit rate for the first 12 months), etc.

¹¹ [PRICE LAB An Investigation of Consumers' Capabilities with Complex Products](#)

- The CRU is also clarifying for respondents that the transitional limit will be removed at the end of Phase Three failing any intervention by the CRU.
- The CRU acknowledges that similar policy decisions undertaken by the Office of Gas and Electricity Markets (Ofgem) in Great Britain as part of efforts to simplify the retail markets in the Retail Market Review (RMR) were ultimately found to be overly restrictive by the Office of Fair Trading and the Competition and Markets Authority (CMA). However, by introducing a glidepath for electricity suppliers from Phase Two to Phase Three, the CRU is ensuring that electricity suppliers are provided with flexibility. Moreover, by clarifying that the transitional limit will be removed at the end of Phase Three, the impact on competition and innovation is not enduring.

6. Conclusion and Next Steps

The CRU's decision on the 'Customer-Led Transition to Time-of-Use' is an important milestone the project and represents the final element of outstanding consumer policy decisions from the Detailed Design phase of the project. This decision also represents the final decision in the preparatory policy work to be carried out by the CRU in advance of smart services 'go-live' at the end of Phase One.

These decisions will provide clarity and certainty for electricity customers, suppliers and potential new entrants to the market. Setting policy at an early stage allows the CRU to now commence the process of incorporating the decisions into the Electricity & Gas Supplier Handbook. The Electricity & Gas Supplier Handbook acts as the 'rulebook' setting out certain requirements in terms of how electricity and gas suppliers interact with energy customers.

The CRU will now commence a programme of work to implement the smart metering related policy decisions in the Electricity & Gas Supplier Handbook. The CRU will work closely with suppliers, consumer interest groups and other stakeholders on the transposition of these decisions in time for smart services 'go-live' at the end of Phase One.

Appendix A

Responses to Consultation Summary

This section documents the responses submitted to the CRU's 'Customer-Led Transition to Time-of-Use'¹² (CRU/18/233) consultation paper published in October 2018. The purpose of the consultation was to seek input from industry, members of the public and any other interested parties regarding the CRU's proposals setting out when and how electricity suppliers offer time-of-use to electricity customers.

The CRU received five responses to the 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 decision. However, some comments received from respondents were ultimately considered out of scope for this particular consultation. A number of these issues are currently being progressed by project stakeholders in other fora on the Smart Meter Upgrade.

Responses Received

Category of Response	Respondents
Supplier	Bord Gáis Energy, Electric Ireland, Energia and SSE Airtricity
Energy Authority	Sustainable Energy Authority of Ireland

Key Themes

Being Time-of-Use Ready

1. **Consultation question:** do you have any general comments on the CRU's updated proposed criteria?
 2. **Consultation question:** do you have any comments on the proposed timings for the issuing of the 'Time-of-Use Primer' to electricity customers?
 3. **Consultation question:** do you have any comments on the CRU's proposed content of the 'Time-of-Use Primer' to be provided to electricity customers?
- In general respondents acknowledged and supported the CRU's objective of ensuring electricity customers are aware of smart metering and the smart services to be made available.

¹² 'Customer-Led Transition to Time-of-Use' ([CRU/18/233](#)) Consultation Paper

- A number of respondents raised the issue of whether the 'Time-of-Use Primer' could be considered marketing material.
- **CRU View:** the CRU acknowledges the points raised by respondents and has emphasised that the 'Time-of-Use Primer' should not be considered marketing material but rather that it is there to inform and empower customers in a changing market. Notwithstanding this, the CRU has refined its decision and is introducing flexibility for electricity suppliers to make the 'Time-of-Use Primer' more generic.
- Some respondents requested more flexibility from the CRU to allow electricity suppliers to align the issuing of the 'Time-of-Use Primer' with other communications.
- **CRU View:** the CRU has considered the points raised by some respondents and is refining its decision to allow electricity suppliers to issue the 'Time-of-Use Primer' in alignment with other communications (for example the 30 Days' Notice).
- One respondent suggested that the 'Time-of-Use Primer' be developed by the CRU and the SEAI which suppliers could distribute on behalf of the CRU and the SEAI.
- **CRU View:** The CRU and the SEAI will develop a 'Time-of-Use Primer' as an option for electricity suppliers to utilise.

'Time-of-Use Reminder'

Consultation Question: Do you have any comments on the CRU's proposed obligation to be placed on electricity suppliers to engage with those electricity customers not on time-of-use and the requirements for same?

- Some respondents requested a limit be placed on the 'Time-of-Use Reminders' to be issued.
- **CRU View:** although the CRU has clarified that the requirement to issue a 'Time-of-Use Primer' will fall-away at the end of 2025, the CRU is cognisant that it will be important to engage those electricity customers who do transition to time-of-use. Therefore, the CRU considers it prudent for the 'Time-of-Use Reminder' requirements to remain.
- Some respondents suggested that the timing of the 'Time-of-Use Primer' or the 'Time-of-Use Reminder' be aligned with timings of existing communications.

- **CRU View:** the CRU has considered the views put forward and is allowing flexibility for electricity suppliers in this regard.

Managing the Introduction of Time-of-Use Tariffs

Consultation question: Do you have any comments on the CRU's proposed transitional limit on the number of time-of-use tariffs electricity suppliers can offer up until the conclusion of Phase Three?

- Two respondents disagreed with the CRU's proposal to introduce a transitional limit on the number of time-of-use tariffs electricity suppliers can offer electricity customers citing potential negative impacts on competition which run contrary to the objectives of the Smart Meter Upgrade
- Two respondents supported the principle of the CRU's proposal so long as clarity was forthcoming from the CRU that the transitional limit will be removed at the end of Phase Three
- **CRU View:** the CRU acknowledges the comments received from respondents and has introduced more flexibility by allowing electricity suppliers to increase the number of time-of-use tariffs from four to a maximum of eight at the end of Phase Two. The CRU has also provided clarity that the transitional limit will be removed at the end of Phase Three - failing any further intervention by the CRU.

Appendix B

Transition to Time-of-Use, Reflecting Decisions

The 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)¹³ following extensive analysis and public consultation. The parameters set out in that decision and which have been updated reflecting these decisions can be demonstrated now 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 must have available the supplier's Standard Smart Tariff (which adheres to the requirements set by the CRU) once smart service 'go-live' at the end of Phase One.
- A supplier must provide the customer (who had a smart meter installed) with a 'Time-of-Use Primer,' (which adheres to the requirements set out by the CRU) through an appropriate channel of communication, no later than six months post smart services 'go-live' (end of Phase One).
- For those customers who receive their smart meter three months after smart services 'go-live,' then the supplier must provide the 'Time-of-Use Primer' no more than three months after their meter install.
- Suppliers must provide, at least once every twelve months, a reminder to each customer (which adheres to the requirements set out by the CRU) not on a time-of-use tariff through an appropriate channel, which should promote awareness, understanding and the wider benefits of time-of-use.
- The CRU may, at some point in the future, direct electricity suppliers to remove flat-rate tariffs from the market. Those customers not on time-of-use at that time will transition to the Standard Smart Tariff. However, it remains the aim of the CRU that the transition to time-of-use be as flexible as possible and be primarily customer-led. Should a decision

¹³ 'Rolling Out New Services: Time-of-Use' ([CRU/15/270](#))

be taken at some point in the future, there will be provision for exemptions and derogations for vulnerable or other classes of customers where it is deemed appropriate.

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.

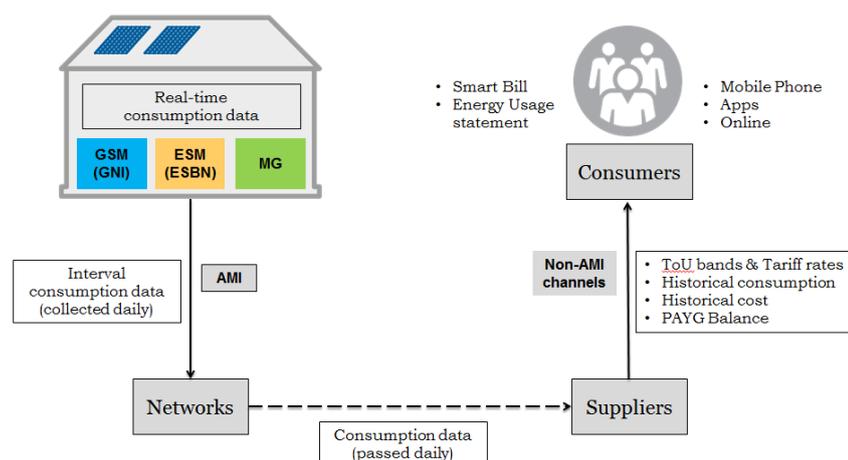
Appendix C

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 facilitates 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.

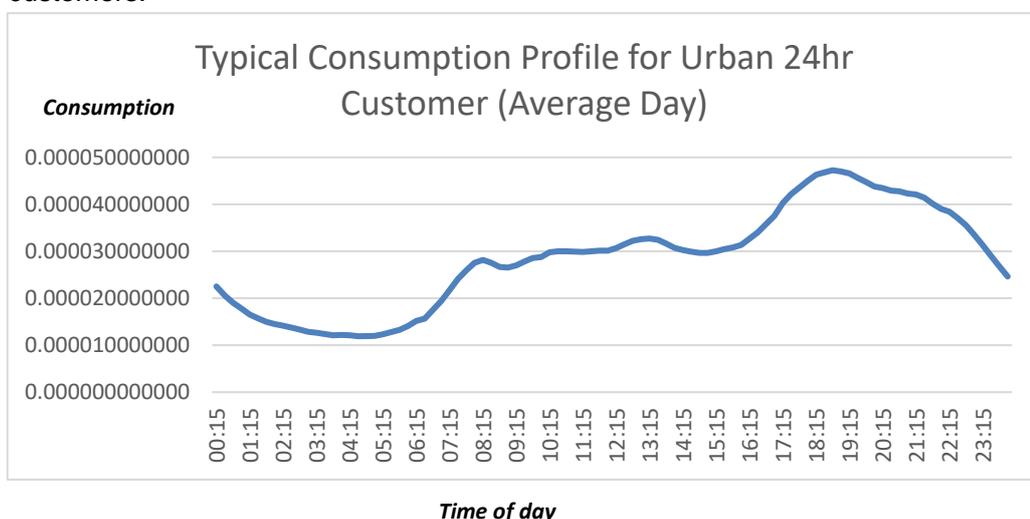
Smart meters are also intrinsic to the development of the smart grid by making it easier to detect losses and facilitating better network planning.

Appendix D

Profile of Consumption

In order to provide domestic and non-domestic customers with electricity, your electricity supplier must purchase electricity in the wholesale market. The price of electricity in the wholesale market is set every half-hour as determined by the CRU. For large business customers, suppliers have more accurate information available to make these purchases because these large customers will more than likely have meters which record at more frequent intervals e.g. 15 minutes. This makes it easier for suppliers to accurately predict how much power to purchase in the wholesale market to serve these large customers.

However, as domestic meters are only read four to six times per year, your supplier has to estimate how much power to purchase to supply electricity to these customers. Therefore, a 'profile' is created for certain domestic



customer categories. This results in certain costs being spread by suppliers when they purchase electricity to sell to customers.

The diagram below outlines the typical consumption profile for an urban 24hr customer. It is shown that domestic customers consume more electricity during the 'peak' periods of 5pm-7pm. The cost incurred by the supplier to provide electricity at this time is charged to electricity customers in their bills. However, the cost is spread out across a customer's bill and therefore may not be cost-reflective.

Time-of-use however will ensure that prices charged to domestic electricity customers are more reflective of the cost of serving that particular customer. For example, a domestic electricity customer who may not be 'peaky' (a customer who uses a lot of electricity between 5pm-7pm) may be in a position to save money with time-of-use because they consume electricity at times of the day when electricity is cheaper.

Moreover, there may be some domestic electricity customers who have an amount of what is known as 'discretionary load.' This is consumption which may be deferred to times of the day

when the cost of electricity is cheaper. Time-of-use combined with more granular information provided to customers regarding their consumption may incentivise them to shift some of their consumption to times of the day when electricity is cheaper and potentially save money.

Appendix E

Glossary of Terms

Term	Acronym	Definition
Clean Energy for All Europeans	CEP	A package of proposed legislation from the European Commission which will adapt the EU market design through directives and regulations.
Consumer Survey	-	Annual survey conducted by the CRU which evaluates domestic and business customers attitudes towards the electricity and gas retail markets.
Dynamic tariff	-	A dynamic tariff is a tariff where the price can change every 30 minutes in-line with the wholesale market price.
ESB Networks	ESBN	Distribution system operator (electricity)
Gas Networks Ireland	GNI	Distribution system operator (gas)
Harmonised Downloadable File	HDF	A standard, harmonised file containing a customers' historical consumption information and export information (if applicable). The file will be made available to customers via the internet by both the customer's supplier and ESBN.
High Level Design	HLD	The decisions made by the CRU which sets out the broad parameters of the smart metering solution for electricity and gas.
Standard Smart Tariff	SST	A standard, simple form of time-of-use which electricity suppliers must make available to electricity customers and the structure of which is outlined by the CRU.
Supplier Handbook	-	A set of requirements on electricity and gas suppliers which outlines the minimum level of service suppliers must adhere to when dealing with energy customers.
Sustainable Energy Authority of Ireland	SEAI	Ireland's national energy authority.

Time-of-Use Tariff	-	A type of tariff where the amount paid by a customer for each unit of electricity or gas consumed varies by time of day, week or year.
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Appendix F

Timetable for Rollout of Smart Metering

