ESB NETWORKS

Electricity Network Tariff Structure Review

ESB Networks' response to CRU's Information Paper regarding the Electricity Network Tariff Review: Project Re-start (CRU/2025/120)

24th October 2025

DOC-021225-IIY

Contents

Executive Summary

ESB Networks welcomes the opportunity to respond to the Commission for Regulation of Utilities' (CRU) Information Paper entitled "Electricity Network Tariff Structure Review: Project Re-start."

Following our previous response to the Call for Evidence consultation in early 2022, ESB Networks continues to believe that the existing network tariff structure, which has been in place for circa twenty years, performs well. It is understood by customers and has generally been perceived as a fair and appropriate basis for ESB Networks to recover the approved revenue needed to develop, operate and maintain the electricity distribution network.

ESB Networks is cognisant that the energy transition, coupled with the development of new technologies, is already changing the way in which customers interact with the electricity network. Therefore, ESB Networks fully supports the CRU's proposed review of tariffs and considers it timely to carry out such a review. In addition, the recent commitments by both the EU[1] and Irish government [2] on energy affordability highlight that network tariffs have a role to play in making electricity bills more affordable for all customers. ESB Networks is supportive of reviewing the tariff structure in light of these requirements to ensure that network charges incentivise the most efficient use of the grid, lowering energy system costs and total new grid investment needs.

Overall, ESB Networks agrees with the high-level approach outlined in the CRU's document and is supportive of the use of a set of assessment criteria to appropriately evaluate the different objectives of the tariff review. In ESB Networks' view, any changes to the tariff structure should be fair, and take into consideration the impact on vulnerable customers and customers facing energy poverty. The current tariff structure is weighted towards volumetric usage and in the future, it is possible that certain customer groups, for example those without microgeneration, could potentially be penalised if the current tariff structures remain unchanged. ESB Networks supports the view that customers should pay their fair share for access to the grid and notes that the accompanying international review highlights that an increasing number of jurisdictions are moving towards increased fixed charging which helps mitigate against this issue. The current tariff structure has been robust and reliable for customers, however due to the transformative changes underway in both the wider electricity sector and at the distribution network, ESB Networks believes that it is an appropriate juncture to review the current tariffing structure. We believe that increasing fixed charges should be an important consideration for this review.

At the same time, it is important for the review to consider whether it is possible to evolve the tariff structure to support and incentivise positive changes in consumer behaviour, which are aligned with the energy transition, and that can improve efficient investment in, and operation of the electricity network. In this regard, ESB Networks is mindful that network charges are one of several components of a customer's electricity bill and a balanced view may be needed regarding drivers of consumer behaviour. The principle of simplicity may also be a key consideration to ensure that any changes to the distribution tariff are well understood by market participants and that any benefits of the network tariff structure are realised as quickly as possible. We note that complex changes to the tariff structure may confuse customers and as a result, are less likely to achieve the desired outcomes.

1 *https://energy.ec.europa.eu/strategy/affordable-energy_en*
2 *National Energy Affordability Taskforce*

ESB Networks agrees that stakeholder engagement is central to the review process and considers that a high level of stakeholder engagement is essential to manage expectations and ensure that potential changes to the tariff structure are fully understood by stakeholders. ESB Networks also feels that stakeholders such as vulnerable customers and customers facing energy poverty should be adequately represented and included in any stakeholder engagement process.

Finally, ESB Networks is conscious that we are entering a critical time for the sector, and the wider economy in terms of the energy transition. ESB Networks has a vital role to play in supporting the CRU to introduce several key EU requirements, particularly in the area of the Active Customer. Any changes to the tariff structure will need to take into account the developments already underway and ensure that changes are compatible with the proposed new customer types and services. For example, the ability of customers to share their exports with another customer(s), or the ability for customers to have multiple supply contracts at a single connection point, should be considered as part of the tariff review process.

1. Introduction

ESB Networks welcomes the opportunity to respond to the CRU Information Paper entitled "Electricity Network Tariff Structure Review: Project Re-start."

ESB Networks agrees that it is timely to review the Use of System charges. The existing tariff methodology has been in place for circa twenty years and has provided a robust and stable tariff for customers. Our customers' needs and use of the electricity network are changing as we move to a low carbon society. It is important that customers continue to have a stable and predictable tariff into the future. ESB Networks is committed to assisting the CRU in developing use of system charges that are fair and equitable for our 2.5 million customers.

ESB Networks fully supports the policies put in place to underpin the decarbonisation of the Irish economy, including meeting Ireland's 2030 climate targets as set out in the Climate Action Plan (CAP) 2025 [1]. We note the important and growing role that electricity will have in helping Ireland achieve these goals and look forward to engagement with both the CRU and stakeholders regarding the appropriate network tariff structure to support these changes.

ESB Networks appreciates the opportunity to update our responses to the 2021 Call for Evidence consultation and remains available to provide further information regarding our response at any time.

1.1 Role of ESB Networks

ESB Networks works to meet the needs of all Irish electricity customers, providing universal access to the electricity system, and delivering and managing the performance of a system of almost 160,000 km of overhead networks, 28,000 km of underground cables and 800 high voltage substations.

We also have a key role in connecting generation to our systems. Currently there is approximately 6.5 GW of renewable generation connected to the distribution and transmission systems, from small scale microgeneration and mini-generation, through to substantial amounts of distributed and transmission-connected renewable generation. We have almost 2.5 million demand customers, of which a significant number are now becoming active customers – including, but not limited to, domestic and commercial premises with micro-generation/mini-generation (a rapidly increasing number); participants in flexible demand; and premises with battery storage. ESB Networks is also a key stakeholder in the delivery of the National Smart Metering Programme (NSMP) which is a key enabler of active customers and to date, has installed over 2 million smart meters in homes and small business throughout Ireland.

ESB Networks also delivers a range of services to the Republic of Ireland (RoI) Retail Electricity Market servicing almost 2.5 million customers. It manages relationships with Market Participants and provides data in a timely and accurate manner on a daily basis. It supports the wider RoI market through the ring-fenced Meter Registration System Operator (MRSO) and Retail Market Design Service (RMDS) and supports the wholesale Single Electricity Market through the provision of aggregated meter data.

1 *Climate Action Plan 2025*

1.2 ESB Networks Tariff Structure

The decarbonisation of energy over the coming decades will rely on the hundreds of thousands, and then millions, of individual decisions that Irish households, communities and businesses make about how they use energy, specifically electricity, for their heat and transport. The electricity system can be an enabler of these decisions. As such, ESB Networks welcomes the opportunity for the people and organisations who use the electricity system to contribute to the discussion regarding the way in which customers pay for an electricity system which can support a low carbon future.

The CRU determines how ESB Networks recovers the costs required to develop, operate and maintain the electricity distribution network. This is done through a multi-annual review (or 'Price Review'), covering a 5-year period. Currently, we are in the final year of Price Review 5 (PR5) [1], covering the period 2021 – 2025, and PR6 [2] is in the final stages of agreement. PR6 will build on and accelerate the significant progress achieved across the electricity sector over the past five years. In this context, our PR6 investment programme is bigger in scale and ambition, reflecting the strategic importance of the electricity network in enabling social, economic and environmental transformation over the coming decades.

These investments will be critical to support the target of up to 80% renewable generation on the electricity network by 2030. They will allow ESB Networks, working closely with the Transmission System Operator (TSO), build the different capabilities and systems required to support the changing behaviours of demand, generation, storage, active customers and communities.

Network investment is a critical component in the delivery of a safe and secure electricity system, and it is imperative that ESB Networks can earn a rate of return that supports its ability to retain uninterrupted access to debt capital markets at competitive rates. For this reason, cost recovery is a key consideration of Use of System charging methodologies.

The current tariff methodology has been in place for circa twenty years. It has been stable and robust and has successfully delivered the investments needed to support the development of the distribution network over that time. ESB Networks agrees that given the expected increase in distributed generation and the changing role of customers in the energy system, it is timely to consider whether the share of total network costs that each network user pays, is appropriate for their use of the network. ESB Networks supports the principles proposed by the CRU for the review, with the goal of ensuring that the share each network user pays is reflective of the shared costs in the ongoing operation, maintenance and development of the electricity system.

1 *Price Review 5 Distribution Network Allowed Revenues 2021 - 2025 (CRU21053)*
2 *ESB Networks Price Review 6 Business Plan Business Plan*

2. Call for Evidence Questions

ESB Networks welcomes the opportunity to respond to the twenty-five questions posed by the CRU in the Information Paper, which relate to the 2021 Call for Evidence consultation document. ESB Networks' updated responses to the questions in the Call for Evidence are set out below.

2.1 Stakeholder Engagement

1. How should the CRU engage with stakeholders over the course of the Electricity Network Tariff Review?

We believe that stakeholder engagement is key to the tariff review process. Stakeholder engagement is an important component of developing a just transition to a low-carbon society, where the needs and impacts on customer groups such as vulnerable customers and customers facing energy poverty[1] are understood. Broad stakeholder engagement will ensure that all potential issues are identified and discussed. This will contribute to a robust analysis which will support the tariff review process.

ESB Networks believes that published material such as updates and consultation papers will provide stakeholders with valuable information on the key areas of investigation and potential findings of the review. Clear communication is important to support broad understanding as well as to manage stakeholder expectations. ESB Networks is supportive of the establishment of an Electricity Network Tariff Structure Review Stakeholder group and in particular, considers that any potential group should consist of a balanced representation of key stakeholders who can constructively contribute to the review.

Over recent years, ESB Networks has engaged extensively with customers and stakeholders to understand their needs and get their input on a range of issues including capacity, flexibility, innovation, safety, and electrification. We have delivered a range of webinars across a number of initiatives including Stakeholder Engagement, Enduring Connection Process (ECP), ESB Networks Innovation Forum and the Distribution Market System Operator (DMSO) – previously known as the National Network Local Connections (NNLC [2]) programme. These have proven to be a useful method of engagement with stakeholders and the feedback from stakeholders on the webinars has also been positive[3].

1 *Energy poverty was defined "as an inability to heat or power a home to an adequate degree" in the governmental Strategy to Combat Energy Poverty Report gov.ie - Strategy to Combat Energy Poverty (www.gov.ie)*

2 *National Network, Local Connections Programme (esbnetworks.ie)*

3 *innovating-to-transform-the-electricity-network.pdf (esbnetworks.ie) (Page 28)*

ESB Networks plays a vital role in the electricity sector, connecting over 2.5 million homes, farms, communities, and businesses around the country, and have a broad range of stakeholders. We define our stakeholders as follows; individuals, groups of individuals, communities or organisations that affect, or could be affected by, our activities, products or services and associated performance (please refer to Figure 1 below). The CRU might find this customer and stakeholder information of interest when considering possible methods of stakeholder engagement over the course of the review.

Figure 1 ESB Networks Stakeholders

2. ***If a dedicated Electricity Network Tariff Review stakeholder group is established, would you be interested in participating? If such a group was over-subscribed, how should the CRU limit the number of members?***

As the Distribution System Operator (DSO) with responsibility for the management of distribution network tariffs, ESB Networks has a central position in the network tariff review process and given our role, we believe we are a key participant in any stakeholder group that might be formed.

2.2 Objectives

3. Do you agree with the objectives of the Electricity Network Tariff Structure Review? Please state your reasoning.

ESB Networks agrees with the objectives of the Tariff Structure Review. Ensuring tariffs remain fit-for-purpose is important for the delivery of an efficient, safe and secure network for the long-term benefit of customers. We agree with some respondents to the 2021 Call for Evidence where it was suggested that it might be useful to clarify the purpose of network tariffs at the outset. ESB Networks also agrees that, as Ireland's energy sector and economy transition to a decarbonised society, tariffs need to be robust and adaptable to the low carbon future and new types of customers.

4. Should the CRU include any other objectives? If so, please explain your reasoning.

ESB Networks does not consider that any additional objectives should be added.

2.3 Proposed Principles

5. Do you agree with the proposed principles of the Electricity Network Tariff Structure Review? Are they clearly defined?

ESB Networks agrees with the proposed principles set out in the Call for Evidence. ESB Networks notes that the CRU has acknowledged that there will inevitably be some trade-offs between principles in the assessment of different tariff options. It will be important for the CRU to carefully consider the different principles when arriving at a final view as to the appropriate tariff structure and level. In this regard, we consider that cost recovery should receive particular weight, given the importance of ensuring that the DSO is able to continue to operate and invest in the network to meet the needs of all electricity customers. We note two recent publications by the EU Commission which support cost recovery as a key principle; Guidance on anticipatory investments for developing forward-looking electricity networks[1] and Guidelines on future proof network charges for reduced energy system costs[2]. Also, we suggest a slight amendment to the cost recovery principle; the principle of cost recovery should aim to ensure that network system operators can recover efficiently incurred costs in a cost reflective manner.

ESB Networks believes that given the investment that both users and network operators will need to make to transition to a low carbon future, tariff stability is particularly important as it contributes to the predictability required by all investors to make decisions. Simplicity and transparency will also play a key role in ensuring that any changes to the distribution tariff structure are well understood by market participants. A complex tariff structure may be confusing and thus less likely to achieve the desired results.

1 https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=OJ:C_202503179

2 8d72a3c3-fdd2-4aca-88ae-730147ba82e5_en

6. In your view, should any further principles be added, or any existing proposed principles be removed? Please explain your reasoning.

ESB Networks believes that the principle of fairness is worth consideration. In the UK, Ofgem is currently conducting an energy system cost allocation and recovery review[1]. Fairness is included as one of five key factors in the proposed assessment framework, with the following definition, "To protect the interests of current and future energy consumers and to reflect the needs of specified consumer groups." [2]. ESB Networks considers that fairness includes equitable treatment between customer groups, consideration of the impact on future as well as current customers, and protecting vulnerable customers.

Additionally, the Advisor Report on International Review of Tariff Structures which accompanied the 2021 Call for Evidence consultation, also highlighted the trade-offs in fairness and efficiency in other regimes. We therefore believe it makes sense to explicitly include fairness as one of the core principles for the Irish review.

There have been a number of developments since the publication of the 2021 Call for Evidence consultation, most notably in the area of Active Energy Citizens. EU Legislation requires DSOs to take on a more transforming role and ESB Networks is already progressing key activities, including multiple supply contracts at a single connection point and energy sharing. Any potential tariff structures must be compatible with these new types of customer-facing services. We suggest that either an existing principle is amended or a new principle of compatibility is introduced to account for the suitability of new tariff structures to different forms of customers.

While we do not propose that any principle should be removed, we note that nine principles are put forward and stakeholders may request others for consideration such as equity/fairness. It is possible that some consolidation may be needed to facilitate the practical implementation of assessing tariff options against each of the principles.

1 *Energy system cost allocation and recovery review | Ofgem*
2 *Energy System Cost Allocation and Recovery Review*

2.4 Scope of Review

7. Do you agree with the areas that are identified as in-scope and out-of-scope for the review? Please state your reasoning.

ESB Networks agrees with the scope of the review as set out in the 2021 Call for Evidence consultation paper;

- the electricity Distribution Use-of-System (DUoS) tariff structure
- the electricity Demand Transmission Use-of-System (D-TUoS) tariff structure

To ensure a cohesive approach, it is appropriate to consider distribution and transmission network charges in tandem.

ESB Networks supports the CRU's position that connection charging should remain outside the scope of this review, given the substantial expansion in scope that would result. The network tariff review already has a wide scope and focusing the discussion on Use of System charges will allow for detailed consideration of the different tariff methodologies. However, we accept that there is an inherent link between connection charges and Use of System charges and we believe that excluding connection charging from the scope of the network tariff review does not preclude a review of connection charging taking place in parallel with the network tariff review.

ESB Networks concurs that the quantum of allowed revenue to be recovered by the DSO is also out of scope, as this is addressed within the Price Review process, and agrees that the focus of this review is the means by which the allowed revenue is apportioned to different customers.

ESB Networks considers that arrangements for the procurement of flexibility and demand side response should also be outside of the scope of the tariff review. ESB Networks has a far reaching and ambitious programme to ensure that the benefits and cost savings of flexibility are delivered to customers. Our analysis to date strongly indicates that the most efficient and effective means of incentivising flexibility will be through short-to-medium-term location specific and time price signals. However, it is important that static and universal information included in DUoS tariffs does not conflict with the location-specific and time-specific information provided in flexibility pricing. We believe that a simple and well-designed tariff which is more aligned with fixed capacity-based charging structures might offer a complementary signal to specific flexibility incentives outside the tariff.

8. Acknowledging that resources are finite, are there any other areas that should be included in, or excluded from, the in-scope and out-of-scope areas for the review? If so, please explain your reasoning.

We consider that the most relevant areas have been included in Section 4.

2.5 Future Developments of the Electricity Networks and their Implications for Tariff Structures

9. ***How do you see the use of the electricity networks in Ireland changing and developing in the future?***

The power sector is undergoing transformative change with the growth of low carbon technology and changing consumer preferences. European policy, such as the Clean Energy Package (CEP), the Fit for 55 Package and RePowerEU, is driving change in consumer behaviour and supporting the decarbonisation of the European power sector. The Irish government's CAP sets ambitious targets to facilitate and enable the transformation to a low carbon future. This ambition includes the goal of reaching up to 80% of electricity generated from renewable sources by 2030. Renewable energy of all sizes, from large-scale to small-scale renewable generation, community renewable energy projects, and microgeneration, will all play a part in contributing to Ireland's decarbonisation goals. Irish Government targets for 2030 include:

- 945,000 electric vehicles (EVs) (passenger cars, vans, trucks, buses)
- 600,000 heat pumps
- c.10 GW of wind and solar farms (in addition to nearly 6.5 GW already connected)
- up to 80% of electricity to come from renewable energy sources

Achievement of the CAP will mean that all of us, in our homes and businesses, will use more electricity and will use it very differently over the coming decade. How and when we use electricity will change with the growth in renewable generation, adoption of EVs, microgeneration and storage. How customers will respond to signals is not yet well-defined. Uptake will be driven by a number of factors, including regulatory and policy developments, and supports such as the Clean Export Guarantee[1]. Customer interaction with flexibility services also has the potential to impact the use of electricity in the coming decade. This is an area still in the early stages of development, particularly for households, however, it could have an impact on the location and timing of electricity consumption.

We also note that the adoption of low carbon technologies depends on several external factors such as the cost of raw materials, cost of capital, the geopolitical environment, EU legislation, government policy etc. Some or all of these factors could contribute to a slower or faster rate of decarbonisation.

It is becoming clear that significant investment in electricity infrastructure is needed to achieve European decarbonisation targets. Eurelectric's Grid for Speed Study[2] estimates that between 2025 and 2050 annual investment of €67bn is required in European distribution networks, and Ireland is no exception. ESB Networks' PR6 investment programme is bigger in scale and ambition than its predecessor PR5, reflecting the strategic importance of the electricity network in enabling social, economic and environmental transformation over the coming decades. The scale of investment is expected to continue post-2030 with consistent investment needed throughout PR6, PR7, and PR8 to deliver a Net Zero-ready network by 2040.

1 *Clean_Export_Guarantee-Enduring_Arrangements_to_Remunerate_Customers_for_Microgenerati.pdf*
2 *Grids-for-Speed_Report_FINAL_Clean.pdf*

Over the PR6 and PR7 periods, the Distribution Markets and System Operation (DMSO) function within ESB Networks is taking a leading role in Ireland's journey to a low carbon future by building capabilities, delivering new offerings and enhancing operating systems that meet the changing needs of customers and enable decarbonisation of the Irish economy and society. ESB Networks Distribution Markets and System Operation has initiated eleven consultations on topics such as Power System Requirements and an Operational Roadmap . Much of the analysis is based on changes to consumer behaviour, however, this remains a significant uncertainty. ESB Networks will continue to prepare for a distributed electricity network with forecasted increased electrification and non-synchronous renewable generation, however achievement of the net zero target will depend on sufficient uptake and engagement from all types of consumers.

In addition, to support our customers, ESB Networks is trialling Flexible and Timed Connections to inform enduring solutions and offerings in the future. These new types of connections are likely to impact how some of our customers consume energy in future and how the distribution network is planned and operated. It is important that with the evolution of the distribution network, with new technologies and digital solutions, that the needs of our customers are considered, for example, new services and technologies need to consider the impacts on vulnerable customers.

10 In your view, are there any drivers of change in the future use of the electricity networks that the CRU hasn't covered in this paper? If so, please identify them and explain your answer.

Since 2021 Call for Evidence consultation, there have been several developments in the energy landscape, most notably in the area of the Active Customer. More active engagement by consumers, particularly households, has the potential to drive change in the future use of electricity markets. With that in mind, ESB Networks notes that throughout this review process assumptions will be made regarding future consumer behaviour, and it may be preferable that the approved network tariff methodology should suit a range of consumer types and behaviour scenarios.

11. How do you think the roles of different parties/stakeholders across the networks will change in the coming years?

ESB Networks agrees with the CRU's view of the evolving role of network operators in the future. The role of network operators is expected to change significantly. These changes are needed to facilitate increased interaction with the electricity network by all customers, whilst ensuring the reliable, secure and safe operation of the distribution system which remains a key priority for ESB Networks into the future. As distribution networks become more complex with the integration of renewable energy, electric vehicles, heat pumps, storage, and other distributed energy resources, DSOs must take on a more active role in managing energy and data flows to ensure that customers have access to electricity where and when they need it and to capitalise on the use of renewable generation when it is available.

In 2018 and 2019, the EU adopted the CEP which seeks to facilitate a transition in the EU towards cleaner energy. The EU CEP requires DSOs to take on a transforming role and ESB Networks is already progressing the key activities across:

- Active energy citizens
- Energy communities
- Flexible alternatives to capital reinforcements
- Smart meter rollout requirement

To support these changes, ESB Networks is transforming the role of DSO in Ireland – through initiatives such as increased visibility of the Low Voltage (LV) network, the full rollout of the smart metering programme, the continued connection of renewable generation to the distribution network and the introduction of flexibility services to manage security and capacity on the distribution system. Note that to date, we have installed over 2 million smart meters and are forecasted to reach 2.7 GW of installed utility-scale generation on the distribution system by the end of 2025. In addition to utility-scale renewable projects, ESB Networks supports the connection of Mini, Micro and Small-Scale Generators at low voltage levels. We expect that the total number of applications will exceed 45,000 this year. To date, c900 MW of rooftop solar has been installed across more than 150,000 individual installations.

The recently established Distribution Markets and System Operation (DMSO) function within ESB Networks is taking a leading role in leading Ireland's journey to a low carbon future by building capabilities, delivering new offerings and enhancing operating systems that meet the changing needs of customers and enable decarbonisation of the Irish economy and society.

In summary, the distribution network will play a key role in the decarbonisation of Irish society, mainly due to the electrification of heat and transport and citizen participation in renewable energy. Over the coming years, technologies will change as will the energy needs of Irish homes, farms, businesses and communities. Customers will have the opportunity to interact with the network through flexibility and demand response services. ESB Networks seeks to facilitate and enhance its customer's changing requirements and needs.

12. How could changes to the electricity network tariff structures facilitate and/or encourage a whole system approach to network investment, network management and system operation? Please explain your answer.

Substantial investment in infrastructure is needed to achieve national policy objectives and meet the needs of a growing population. This will require whole-of-system thinking and close cross-sectoral collaboration between the energy sector and others to maximise the opportunity for success.

In general, electricity network tariffs have the potential to signal to users when/how to make better use of the electricity distribution network, which could lead to more optimal network investment, management and system operation. However, their ability to influence consumer behaviour is limited as network tariffs (both distribution and transmission) are only one component of a customer's bill, currently representing approximately 30% of an average domestic customer's bill.

Although a whole system approach is preferable, the network tariff structure is one of several charging structures that together contribute to a whole system approach to network investment, management and system operation. Some system issues may best be resolved through other means or charging structures such as connection charges and payments for flexibility.

Overall, network tariff structures should be reflective of costs and should not undermine the recovery of network costs.

13. How do you foresee the increasing uptake of behind-the-meter generation for the purpose of self-consumption changing the load profile of electricity consumers, particularly domestic electricity consumers, in the future?

Behind-the-meter generation, such as rooftop solar microgeneration, has the potential to play a key role in the decarbonisation of the electricity sector. Under the current tariffing structure, which is highly dependent on volumetric charging, behind-the-meter generation has the potential to transfer additional cost recovery onto customers that do not or cannot afford to install this type of technology. For this reason, ESB Networks believes that the impact of behind-the-meter generation should be considered over the course of the tariff review – for example, a typical domestic customer with behind the meter generation in comparison to a typical domestic customer with no behind-the-meter generation.

We note that, when self-consumed, behind-the-meter generation has the potential to reduce a customer's demand across the day and this reduction can be more pronounced for those with battery storage. However, an important factor for consideration is the correlation of self-consumption with peak demand since peak demand is the main driver of costs on the network. Some forms of behind-the-meter generation such as Solar PV, still require customers to consume electricity at peak times i.e. dark evenings during the winter period. The review should therefore take a balanced view of behind-the-meter self-consumption and the associated impact on network tariffs.

Many factors will affect the timing and scale of the uptake of behind-the-meter generation including Irish Building Regulations, the cost of low carbon technologies and available government supports such as the Clean Energy Guarantee (CEG) [1]. Consumer engagement will also be key in driving changes to the load profile of electricity demand.

1 *Remuneration of Renewables Self-consumers for exported electricity - Commission for Regulation of Utilities (cru.ie)*

14. What are your views on the impacts of future changes identified in this Section and their implications for electricity network tariffs?

ESB Networks broadly agrees with the CRU's assessment of future changes and their impact on electricity networks. Overall, the objective of the tariff review is to ensure that the network tariff structure is appropriate given the significant changes in network usage that are likely to arise as part of the energy transition over the coming years. ESB Networks considers the following future changes as key to the discussion regarding the network tariff review;

1. Decarbonisation: Increase in total demand and increasing electrification

On the electricity distribution system, increased demand will be driven by a number of areas such as, the increased uptake of EVs and heat pumps in households as well as new connections. To accommodate this growth significant further investment in network capacity is required. As the 2021 Call for Evidence paper mentions, additional capacity is also required to support the connection of significant amounts of renewable generation. ESB Networks' Capacity Pathways Report[1] analyses additional capacity demand arising from the electrification of heat, transport, and industry, as well as from population growth, new housing developments, and economic growth. The Report highlights the growing need for additional investment to ensure adequate capacity is available to facilitate major growth in both electricity demand connections and renewable generation connections to the distribution system from now until 2030 and beyond. With this in mind and to ensure that investment costs are as economical as possible, it will be important to ensure that tariffs incentivise, as far as possible, efficient use of the network and are recovered in a way that fairly reflects the costs imposed on the network by different user groups. At the same time, it will be important to ensure that tariffs are not set at a level or in a structure that undermines the energy transition and the ambitious targets set out in CAP 2025.

2. Decentralisation: Increase in distributed generation and changes in demand profiles

New technologies will further change the profile of demand. As we move forward, many more customers will generate and store their own electricity. Customers can export their electricity back to the grid and an increase in active energy citizens may see a consequential increase in the electricity exported to the grid. These changes in customer interactions with the grid will affect the nature and direction of energy flows. Currently 3 GW of distributed generation is connected to the distribution network and this is forecast to continue to increase. This gives rise to important considerations for how the network must operate and evolve to support these developments.

3. Digitalisation: Increase in the availability of data to drive decision making

Over the coming years, consumers will have access to more data than ever before. Real time data will support consumers decisions about when and how they use electricity. Businesses are already developing apps and smart devices to respond to real-time price information. This has the potential to have a noticeable effect on the distribution system. For instance, if many customers choose to take the same action at the same time, this could lead to a surge in electricity demand. The review should take into consideration the role of digitisation in supporting changes in consumer behaviour.

1 *ELECTRICITY DISTRIBUTION NETWORK CAPACITY PATHWAYS – CONSULTATION REPORT – Delivering the Electricity Network for Ireland's Clean Electric Future*

16. How do you think changes to the electricity network tariff structures could help stakeholders avail of opportunities opening up due to future changes to the electricity networks?

The CEP and CAP envisage a world in which consumers are far more actively engaged than they are today. In the future, heating and transport will be electrified to a much greater extent. In the case of transport, this opens up the possibility for EVs to become a significant provider of storage capacity. However, ESB Networks notes that the extent and pace of change remains uncertain. In this context, ESB Networks considers it essential that the network tariffs facilitate different network uses and ensure that consumers face fair but efficient tariffs for their use of the network. Particular consideration may also be needed regarding any impact on vulnerable customers and customers facing energy poverty.

2.6 The Current Network Tariffs

17. In your view, how do the current network tariff structures impact different types of network users? Do any network users have particular challenges or issues with the current network tariff structures? Please explain your answer.

Tariffs have been set, with approval of the regulator, on a largely cost reflective basis. The split of tariffs between fixed and variable components was designed to broadly reflect the costs caused by different user groups. As a result, the existing structure has generally worked well. On the whole, distribution tariffs have been stable and predictable for customers and provided ESB Networks with revenue certainty, necessary to underpin its investment in the network. ESB Networks is of the view that the split of tariffs between fixed and variable components will be a key factor since many other jurisdictions have introduced fixed capacity-based charges to reflect the underlying cost driver of network investment, peak demand. ESB Networks is mindful that the split of variable and fixed charges will have a different impact across customer groups. This will be a key consideration of the review and in particular, the impact on vulnerable customers and those in energy poverty.

In October 2022, under the National Energy Security Framework (NESF), ESB Networks worked with the CRU to introduce Time of Use (ToU) network tariffs for domestic (DG1, DG2) and small commercial customers (DG5), and Large Energy Users (LEUs) (DG7 – DG10). These energy-based per kWh charges cover three time-periods; Day, Night & Peak, where Peak is between 5pm and 7pm. Note that ToU network tariffs are mandatory for LEUs and apply to domestic and small business customers with a smart meter who have opted-into smart services. To date, ESB Networks has installed over 2 million smart meters. Smart meters are the enabler of ToU price signals to customers, including ToU network tariffs, which will be an important consideration for this review.

18. In your view, could the existing electricity network tariff structures hinder the changes that are necessary for the electricity system in the coming years? Please explain your answer.

The current electricity network tariff structure has been in place for circa twenty years. It has been robust and stable and has delivered the investments needed to support the development of the distribution network.

ESB Networks does not believe that the current tariff structure would hinder the forecast changes to the electricity system. Electricity usage is expected to be mainly driven by electrification and this uptake will be driven by a number of factors. However, ESB Networks notes that the current network tariffs could have a disparate impact on some customers. With this in mind, ESB Networks agrees that it is timely to review the structure of the network tariffs.

For instance, the apportionment of fixed and variable charges is an area that ESB Networks believe could alleviate potential negative impacts on non-adopters versus adopters of low carbon technologies.

19. In your view, do the price signals within the current electricity network tariffs sufficiently affect behaviour and influence use of the electricity networks? Please explain your answer.

When considering the impact of network tariffs on consumer behaviour, it is important to note that ESB Networks do not levy charges directly on customers, rather network charges form part of the overall electricity bill. Currently, network charges (both distribution and transmission) make up approximately 30% of a domestic retail customer's average annual bill. While the level and structure of retail tariffs will influence demand, electricity network tariffs therefore come into play as only one of several components of the bill. Behaviour across user groups is primarily reflective of each group's underlying demand for electricity.

For most customers, the current network tariffs are comprised of a fixed standing charge and per kWh energy charge(s), where the majority of domestic customers remain on a flat volumetric kWh energy charge applied to all time periods. Some recent studies, such as SmartEn's Roadmap for cost-reflective network tariffs in the EU, suggest that flat volumetric charges are a barrier to electrification[1]. As mentioned previously, ESB Networks introduced ToU network tariffs for all customers in 2022 and while there are some price signals in the current network tariffs, a customer's main point of engagement with price signals is through their retail tariff. Thus, it is difficult to say whether the current network tariffs in isolation have the ability to sufficiently affect behaviour and influence use of the electricity networks. However, ESB Networks agrees that it is worth considering as part of this review if other price signals are needed to support the achievement of the CAP 2025 targets and further decarbonisation post-2030.

1 *FTI-Consulting-Report_smartEn_03-2025_DIGITAL_V2.pdf*

2.7 Tariff Considerations

20. What are your views on the network tariff components and considerations outlined in this paper?

The CRU's proposed list of methodologies for consideration is comprehensive and we believe the review process should evaluate these thoroughly to ensure any tariff components considered in detail are of benefit to customers. It is important to note that the existing tariff structure works effectively and has resulted in a robust recovery mechanism for circa twenty years. Therefore, the CRU should consider a practical approach to possible changes and the consequential potential impact to customers. Network tariffs which are clear and transparent are more likely to achieve the desired results. Changes to the network tariff structure may necessitate changes to both network operator and supplier systems. If required, this will take time to achieve and ESB Networks considers that it may be appropriate to consider as part of the review, the time it would take to implement each methodology.

We note the CRU's preference for a multi-annual programme of work which will be progressed in phases. ESB Networks agrees that this is a practical approach which is likely to facilitate gradual changes in network tariffs. This method will allow for consideration and integration with other planned system changes, including those set out in the DMSO's Blueprint[1], as well as appropriate customer communication.

21. Are there additional tariff components, structures or options not described above that the CRU should consider? If so, please identify them and provide rationale.

The Call for Evidence provides a good overview of tariff components for the reader.

2.8 International Review

22. Are there lessons or insights highlighted in our Advisors' Paper (CRU/21/123a) that are particularly relevant to this Electricity Network Tariff Structure Review? Please explain your answer.

The differences across jurisdictions make a direct comparison with the Irish framework challenging. However, the International Review offers some valuable insights on electricity tariff models;

- Many tariff structure regimes have either recently been changed or are in the process of being changed. This reflects the transformation of electricity markets in Europe and suggests that the CRU's review is timely.
- There is no one-size-fits-all tariff model. Rather, different trade-offs of principles and specific peculiarities of each network structure result in differences across jurisdictions. Additionally, different trajectories in the adoption of new technologies and systems inevitably shape the current structure of tariffs, whose design in turn affects consumer behaviour.

The topic of apportionment of fixed and variable costs in the network tariff is addressed in most jurisdictions (Great Britain, Italy, Norway, Netherlands, Spain, Belgium), likely driven by the forecasted network investment needed to support decarbonisation. To the extent that a trend is discernible, there appears to be an increase in the proportion of costs that are recovered through fixed capacity-based charges. It is therefore appropriate that this change is considered for the network tariff review process.

1 *ESB Networks Dmso Blueprint and Roadmaps*

23. Are you aware of any other lessons or insights from these (or other) jurisdictions that may be relevant to this review? Please explain your answer.

The international analysis of tariff reviews completed by Europe Economics, TNEI and Delta-EE was comprehensive. As tariff reform remains topical in a number of jurisdictions at the moment, ESB Networks considers that there will be value in updating the international review. We note that, since the Call for Evidence was published, several key publications have issued regarding network tariff developments in European jurisdictions, most notably ACER's Report on Electricity Transmission and Distribution Tariff Methodologies in Europe published in 2023[1] & 2025[2].

ESB Networks suggests that it may be helpful to consider some elements of the International Review in more depth, e.g. where experience from other jurisdictions can help focus reform on changes that would be most effective (e.g. understanding of increasing fixed components of charging, lessons from jurisdictions where time of use tariffs are in place).

2.9 Interactions with Other Policies

24. In what ways could changes to the electricity network tariff structures interact with other regulatory policies and arrangements?

In principle, significant changes to the network tariff structures could impact on multiple different policies and arrangements. In particular, we note developments in the area of the Active Customer which have the potential to impact network tariffs and vice versa. Overall, ESB Networks considers that it will be important for the CRU to carefully assess the extent to which any potential changes to the tariff structure may impact on other regulatory policies and arrangements, to guard against the creation of unintended consequences, which may act to the detriment of customers.

2.10 Developments since Call for Evidence CRU/21/123

25. Please identify developments since the publication of CRU/21/123 which you consider are relevant to the review and advise why and how you think they should be considered during the review.

Ireland's electricity network is a critical component of our national infrastructure which underpins economic growth, sustains our modern economy, and supports the delivery of key policy objectives relating to housing, economic growth, and climate change. Based on the most recent projections [3], the Irish population is forecast to grow by around 1 million people by 2040, requiring an additional 50,000 homes to be built each year throughout PR6. Furthermore, we anticipate an increase in connection applications of all types and sizes, as well as higher levels of network utilisation by existing customers. It will be important for the review to consider the changing behaviour of existing customers and the emergence of new customer types.

As mentioned in response to previous questions, it is ESB Networks' view that some of the most significant developments since the Call for Evidence are in relation to the Active Customer. ESB Networks is required to implement a number of solutions in this area that are expected to facilitate greater engagement by customers in the electricity market, including the ability of customers to share their exports with other customer(s) and the ability for customers to have multiple supply contracts at a single connection point. We believe that these developments will need to be taken into consideration in the tariff review to ensure that each customer pays a fair share of the costs needed to develop, maintain and operate the distribution network.

1 *ACER_electricity_network_tariff_report.pdf*
2 *2025-ACER-Electricity-Network-Tariff-Practices.pdf*
3 *National Planning Framework: Home - The National Planning Framework*

3. Conclusion

ESB Networks fully supports the CRU's proposed review of network tariffs and agrees with the multi-annual, phased approach as outlined in the CRU's Information Paper. The existing network tariff structure has been in place for circa twenty years and has worked well. However, it is important to recognise that the world is changing, and that the energy transition, coupled with the development of new technologies is already changing the way in which customers interact with the electricity networks. With this in mind, ESB Networks considers it is a timely point to carry out such a review.

The Irish government has set ambitious decarbonisation targets which are clearly laid out in the latest publication of the CAP. In addition, the recent commitments by both the EU[1] and Irish government[2] on energy affordability highlight that network tariffs have a role to play in making electricity bills more affordable for all customers.

ESB Networks is committed to working collaboratively with the CRU and stakeholders throughout the tariff review process, supporting efforts to advance the decarbonisation of Irish society while ensuring that network tariffs remain as economical as possible.

In particular, ESB Networks considers it critical that the review is based on a balanced set of assessment criteria that appropriately weigh the different proposed objectives and principles of the tariff review. ESB Networks believes that the principle of cost recovery is of particular importance given the level of investment required over the foreseeable future to support the development of electricity infrastructure which is critical to societal decarbonisation via electrification. We would also like to suggest that fairness is added to the principles put forward by the CRU, in support of equitable treatment between customer groups and consideration of vulnerable customers and those in energy poverty. Simplicity and transparency will also play a key role in ensuring that any changes to the distribution tariff structure are well understood by market participants.

ESB Networks also considers that high levels of stakeholder engagement are essential to ensure that market participants have the opportunity to share their perspectives regarding how network tariffs can support the transition to a low carbon future. ESB Networks notes from the international review of distribution tariff methodologies that no one size fits all approach has applied however, a common theme appears to be an increase in fixed capacity-based charging. ESB Networks believes that increasing fixed capacity-based charges will be an important consideration for this review.

We appreciate the opportunity to respond to CRU's consultation and remain available to engage further with CRU regarding any elements of our consultation response at any time.

1 https://energy.ec.europa.eu/strategy/affordable-energy_en
2 National Energy Affordability Taskforce

ESB NETWORKS
Three Gateway,
East Wall Road,
Dublin 3,
DO3 R583

Tel 1800 372 757 or +353 21 2386555
Email esbnetworks@esb.ie

esbnetworks.ie