



Smart Metering Consumer Impact Study

Report for the Utility Regulator in Northern Ireland
July 2024

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Executive Summary

In the Energy Strategy Action Plan 2023, the Department for the Economy in Northern Ireland (NI) set out their intent to finalise a plan for the rollout of electricity smart meters in Northern Ireland. Smart meters are a key enabler of the energy transition and have been widely installed globally. Consumers are core to a smart meter rollout and without their buy-in the full benefits of smart meters cannot be realised.

Ahead of the rollout in NI, the Northern Ireland Authority for Utility Regulator (UR) commissioned LCP Delta to carry out research into the lessons learned from other rollouts, with a focus on the experience of consumers.

To deliver this research, LCP Delta has undertaken 13 interviews with a range of key stakeholders involved in, or who have knowledge of, the design stage of the smart meter rollouts in Great Britain (GB) and the Republic of Ireland (RoI). The interviewees covered a range of perspectives and included policymakers, energy suppliers, consumer representatives and network organisations.

These interviews explored:

- What went well in the RoI and GB rollouts?
- What were the challenges faced in these rollouts?
- What could be done differently in NI or if they were delivering the smart meter rollout again today?

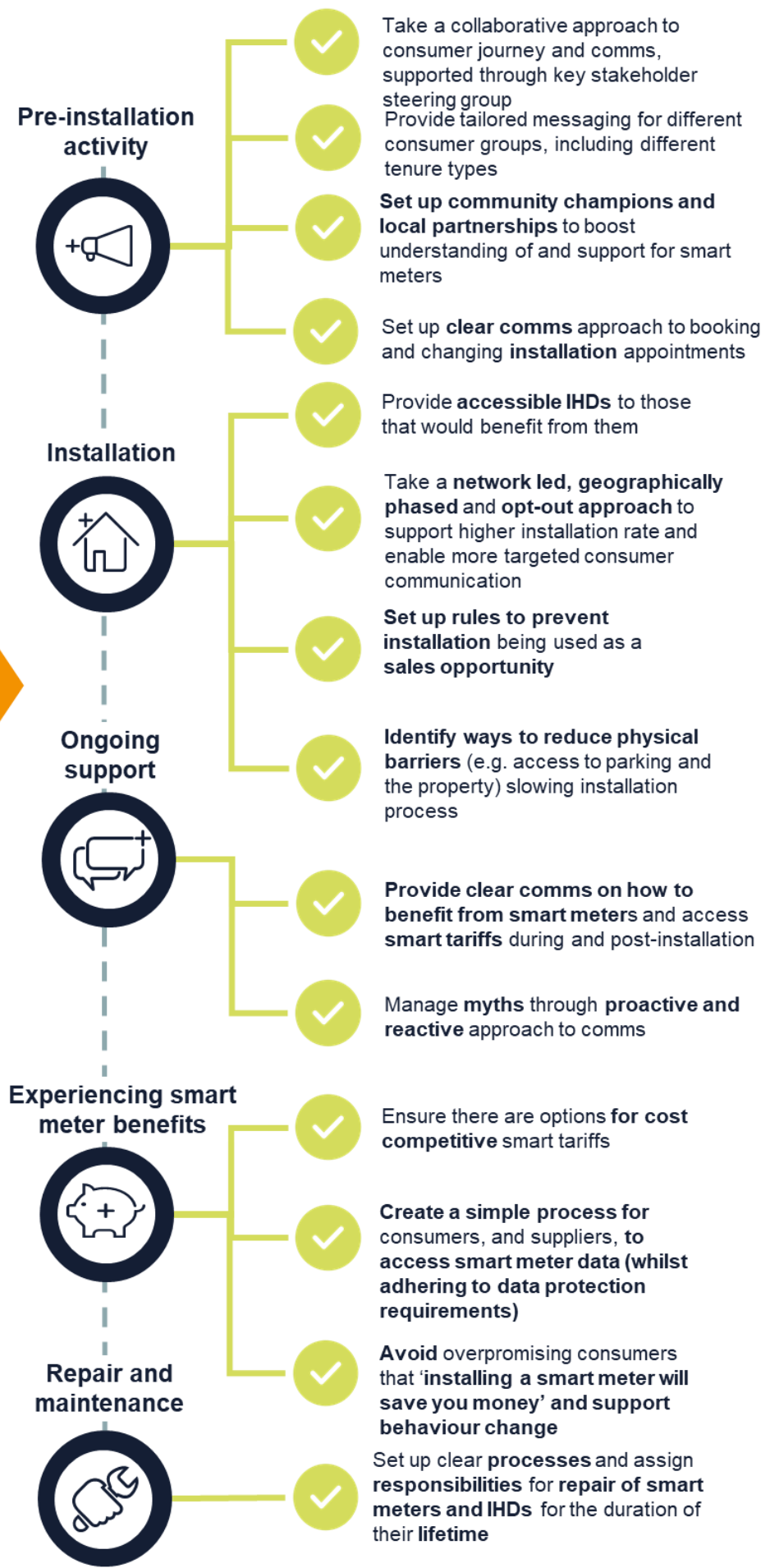
LCP Delta analysed these interviews and provided a series of key recommendations. These recommendations link to different stages of the consumer journey, from initial communication prior to smart meter installation to ongoing repair and maintenance. There are also an overarching set of recommendations provided for policy and governance decisions and frameworks to support the consumer journey. These recommendations have been summarised in the graphic on the following page.

Key recommendations from interviewees to support the smart meter consumer journey in Northern Ireland

A communication and engagement strategy will need to be agreed during the smart meter rollout design. These recommendations will need to be considered in the setting of this strategy.

Policy / Governance decisions affecting consumer experience

- Government bodies should work closely with industry from the start of the rollout
- Map vulnerable consumer characteristics and provide tailored support
- Incorporate all geographies and meter types into design of rollout, including alternative solutions if some consumers cannot get a smart meter
- Set targets around fully functioning smart meters, rather than just meters installed
- Identify how best, and most cost effectively, to present data to consumers
- Carry out pilots / programmes to feed into design



1. Introduction

1.1. Background to smart metering in Northern Ireland

Smart meters are a key enabler of the energy transition and have been widely rolled out globally. They support a digitalised energy system, providing benefits to the energy networks, wider industry, and consumers. The Department for the Economy (DfE) in Northern Ireland undertook a cost benefit analysis on smart metering in December 2022, which confirmed an overall positive benefit for consumers from an electricity smart meter rollout. Following this, the Energy Strategy Action Plan published in 2023 set out the intent to finalise a plan for the implementation of smart meters, ahead of a public consultation.

There has been a high rollout of smart meters in much of Europe, with many consumers and organisations already experiencing the benefits, such as access to innovative smart tariffs and real-time consumption data to help manage their energy usage and costs. However, there have also been a number of challenges associated with smart meter rollouts, many of which have impacted consumer acceptance of, and experience with, smart meters.

1.2. Purpose and scope of this work

To deliver a successful smart meter rollout, it is crucial to understand how the smart meter rollout impacts consumers and how it can be designed to deliver the best results for them. The Utility Regulator (UR) understands that consumers need to be central to the Northern Ireland (NI) smart meter rollout and has therefore commissioned LCP Delta to carry out a piece of work to:

- Hear from key stakeholders involved in, or who have knowledge of, the design stage of the smart meter rollout.,
- Draw insights on what could have been improved on at the design stage.
- Explore the experiences and impacts on consumers of smart meter rollouts in other jurisdictions.
- Propose recommendations on how to avoid problems and identify good practice identified elsewhere.

This will enable the development of a best practice approach to smart meter implementation in NI and feed into the work the DfE is doing on the high-level design.

This study focused on the lessons learned from the Great Britain (GB) and Republic of Ireland (RoI) rollout. To identify these lessons we carried out a series of interviews with key stakeholders involved in both rollouts.

1.2.1. Report structure

This report provides an overview of the methodology used in carrying out this research, followed by an overview of the lessons learned from the design stage of the GB and RoI rollouts. We have also provided a summary of the key points made by interviewees based on the following research questions:

- What went well in the RoI and GB rollout?
- What challenges were faced in the RoI and GB rollout?
- What could be done differently in NI?

The data collected during the interviews has been collated and analysed in Section 3 of the report.

2. Methodology

2.1. Research design

To deliver this work, LCP Delta carried out stakeholder engagement to understand the lessons learned from the smart meter rollout in GB and RoI, with a focus on the consumer.

This consisted of carrying out in-depth interviews with 13 key stakeholders from the GB and RoI smart meter rollouts. These interviews covered a range of questions exploring:

- How consumers, including vulnerable consumers, were considered in the design of smart meter rollouts,
- what the consumer engagement strategy was for each rollout,
- how the consumer experience was assessed during the smart meter rollout and the overall conclusions, and
- what benefits and issues did consumers experience as a consequence of the rollout and how were these addressed.

By capturing perspectives from a broad range of participants, our report has delivered a comprehensive set of recommendations on how to design the NI smart meter rollout to deliver the best result for consumers.

2.2. Interviewed participants

LCP Delta worked with the UR to develop a long list of stakeholders for the interviews, which were identified based on findings from the GB and RoI smart meter rollouts and their key stakeholders. The stakeholders chosen were those that could provide meaningful insights on the consumer experience of the rollouts, i.e. industry stakeholders, consumer facing organisations or policymakers. The interviewees have been kept confidential for the public report.

These organisations were then categorised and prioritised for interview. This was based on level of involvement in the consumer experience of the rollouts and also the type of organisation, to ensure all key perspectives were covered rather than just capturing one type of view (e.g. from policymakers). All high priority stakeholders were contacted, followed by lower priority where there were issues with engagement or availability. The interviews were conducted following a semi-structured interview guide, which provided consistency across the interviews but allowed the process to be guided by the interviewee and what they considered to be the key points.

Each interview lasted between 30-60 minutes and was held via Microsoft Teams.

2.3. Interview analysis

To analyse the insights and information collected from stakeholder interviews, our analysis focused on a thematic approach. Each interview was attended by two members of the project delivery team, with one taking comprehensive notes to ensure that all stakeholder comments were captured accurately. Once the interviews were completed, key phrases and concepts were identified and categorised. The categorisation enabled overarching themes to be identified that reflected the main stakeholder recommendations and observations. This thorough analysis enabled us to distil complex qualitative information in to clear insights regarding smart meter rollout consumer impacts.

3. Learnings from the RoI and GB rollout

3.1. Overview

This section provides a detailed overview of the smart meter rollout learnings identified through the interviews. These have been grouped into the following sections:

- What went well in the GB and RoI smart meter rollout?
- What challenges were faced in the GB and RoI rollout?
- What could be done differently in NI or if they were delivering the smart meter rollout again today?

The section below outlines the points raised in the interviews. Based on our analysis of these findings, our key recommendations that should be considered in the design of the NI smart meter rollout are in Section 4.

3.2. Lessons Learned – What went well in past smart meter rollouts? (Identifying best practice)

This section focuses on the successes of the smart meter rollouts in GB and RoI and the elements of the programme design that have supported a positive experience for consumers. To identify these, interviewees were asked questions including:

- What were the areas of consumer focus when implementing the smart meter rollout. What went well? What would be done again?
- Based on your experience what good practice can be identified from the rollout of smart meters?
- Can you describe what steps were taken to deliver an effective consumer engagement programme?

The questions were adjusted based on the interviewee and their role in the smart meter rollout.

The interviews identified good practice in both rollouts which provide tested design options for the NI smart meter rollout. These learnings have been summarised in the table below and further detail on each is provided in the following sections.

Stage in the consumer journey	What went well?
Policy / Governance decisions affecting consumer experience	<ul style="list-style-type: none"> • A collaborative approach by government including working close with industry in GB • Clearly defined characteristics for vulnerable consumers • Smart meter rollout trials to support further understanding of the consumer
Pre-installation communication and ongoing communication	<ul style="list-style-type: none"> • Alignment on the approach to communication (including agreement on consumer journey and terminology) • Community champions and local partnerships
Installation	<ul style="list-style-type: none"> • Efficient physical installations of the RoI smart meter rollout • Avoidance of installation being used as a sales opportunity

Experiencing smart meter benefits • Consumers, including vulnerable consumers, realising the benefits of smart meters

Policy / Governance decisions affecting consumer experience

3.2.1. A collaborative approach from government by working close with industry in GB

One interviewee believed that the collective approach by the government, including working closely with industry, proved effective in GB. Despite the complexities of a smart meter rollout, significant steps have been taken, such as establishing the Smart Data Communications Company (DCC) and Smart Energy Code Governance Body, which has created the necessary codes. An interviewee believed that the GB smart meter rollout included the right representatives in decision-making meetings (e.g. suppliers, Smart Energy GB and government bodies), which can be viewed as a good precedent for improving governance in the smart energy space. These sessions were an opportunity for key stakeholders to communicate key barriers or suggest new practices with other relevant interviewees, demonstrating a united approach. The interviewee also pointed out that a smart meter rollout is an enormous undertaking with a number of complex challenges. The collaborative approach allowed key stakeholders, with varied perspectives, to work to solve some of these problems.

3.2.2. Understanding vulnerable consumer characteristics

Interviewees suggested there needs to be clear definitions of consumers in vulnerable circumstances for the government, regulator and industry. Additionally, one interviewee expanded by encouraging that all challenges vulnerable consumers face need to be defined and included in the smart meter rollout design. Different consumer types will have different barriers to engaging with the smart meter rollout and the support expected from or needed by these consumers will vary. By mapping the vulnerable consumer groups and their key barriers it will support a tailored approach to engagement that will allow all groups to engage with and benefit from their smart meters.

To do this, Smart Energy GB consulted across the industry and with third-party specialists to map out and understand the characteristics of those who may struggle with the journey. Smart Energy GB carried out a mapping exercise to identify 24 types of vulnerable customers (e.g. being blind or partially sighted).

One interviewee referenced the Smart Energy GB research, produced by Optimisa Research in 2017, which could provide a guide for carrying out this process of mapping and defining vulnerable consumers. This provided a framework of the barriers for different consumer groups based on three key groups:

- Circumstantial (e.g. no personal internet access, low income, district heating)
- Personal physical (e.g. mobility impairment, dependent on medical equipment)
- Personal non-physical (e.g. low literacy, learning disability)

This could provide a useful framework to use in NI to feed into the design of the support for vulnerable consumers.

Interviewees recommended that once the different types of vulnerability are understood, it is essential to tailor a strategy and communications to address each vulnerable consumer group. Interviewees provided suggestions on what this support could include:

- Vulnerable consumers should be provided with additional support such as a phone call or more in-depth discussion post-installation.
- Vulnerability training for advisors to ensure that they can recognise indicators of vulnerability and can then offer relevant support.

- Accessible In Home Displays (IHDs) provided to those that would benefit from them. This should be combined with clear guidance to advisors / call handlers / community champions on the different functionality of this equipment. This is necessary to mitigate the risk that they do not know such kit is available or how to advise users on how to use it to full effect.
- Community champions to communicate with groups that may not engage with online / television campaigns.
- Advice in all key languages used in the area.

3.2.3. Smart meter rollout trials in GB to support the understanding of the consumer

Two interviewees believe that smart meter rollout trials and targeted campaigns, in GB have significantly benefitted the rollout. This is achieved by providing key insights and allowing for the refinement of the installation process. Smart Energy GB for instance, conducted a 2020 smart meter rollout targeted campaign in Derby, England, during the national rollout, in partnership with Derby council¹. The city-wide initiative focused on encouraging residents to install a smart meter in their home. The campaign was designed to raise the awareness of smart meters and upgrade Derby's energy infrastructure. This has helped identify and raise key challenges during the campaign, with an aim of feeding the learnings into the nationwide implementation. Trials have tested communication networks, installation logistics and consumer engagement strategies that have led to higher acceptance rates among users. Trials have also collected data on energy usage, which has informed the development of tariffs and user-friendly systems. Whilst this trial took place later into the smart meter rollout in GB, an interviewee recommended using this approach on the early stages to understand what works well or less well in the NI market.

Pre-installation communication and ongoing communication

3.2.4. Alignment on the approach to communication (including agreement on consumer journey and terminology)

A key recommendation from multiple interviewees was to take a clear and consistent approach to the communication around smart metering. This should include a way to ensure all stakeholders involved in the rollout in NI are agreed on what and how smart meters, and their benefits, are communicated to consumers. It should also include stakeholder alignment on the consumer journey and the terminology used in smart meter communications.

In RoI there has been a clear approach to coordination of stakeholders in the communication of smart meters and it was an example of good practice cited by multiple interviewees. CRU assigned responsibility of this coordination to ESB Networks who led a steering group to manage the communication of smart meters. Since the start of the rollout, ESB Networks in RoI have chaired monthly meetings with key stakeholders including:

- Energy suppliers,
- The Department of the Environment, Climate and Communications (DECC),
- The Commission for Regulation of Utilities (CRU), and
- The Sustainable Energy Authority of Ireland (SEAI).

In the early stages, these meetings provided a forum to agree approaches taken to communication, including alignment on definitions used (e.g. tariff terminology) and mapping the customer journey. This step of mapping the consumer journey, with input from all key stakeholders, was considered a critical step in the success of the RoI rollout. In the later stages

¹ <https://www.derby.gov.uk/news/2020/february/energy-upgrade-is-a-smart-move-for-derby/index.html>

of the rollout this provided a forum to raise issues (e.g. negative media) or share lessons learned. One interviewee emphasised the importance of this forum in providing clear and consistent messaging for the consumer.

Some interviewees on the GB side, cited the inclusion of Smart Energy GB in the rollout strategy as a tool to support this aligned approach to communication. Smart Energy GB has provided a way to communicate smart meters and their benefits in a digestible way through their television advertisements. The inclusion of this one public facing body supports the objective of having one consistent voice and message around smart metering, which is particularly important when it is being delivered by multiple energy suppliers.

3.2.5. Community champions and local partnerships

One interviewee cited that the use of community champions and mentors had been very helpful to build trust in the RoI rollout. Champions were early adopters that ESB Networks then organised and encouraged to talk to their local communities about the benefits and help alleviate their concerns. These champions were provided with training to support them in this process. This was put in place on the basis that for most groups, particularly vulnerable groups, rollout providers cannot wait for consumers to actively seek out the information. In most cases, providers must actively engage with the consumer so having local people to engage with their communities helped with getting their message across.

A key strategy for Smart Energy GB is engaging consumers through partnerships. Partnerships are essential as some vulnerable consumer groups won't be as actively engaged in media channels, and therefore need an alternative communication approach (e.g. some may have a trust barrier, and only trust the information they receive through a certain party). Some examples of partnerships include Poundland, Students Organising for Sustainability and the English Football League and Rugby League.² Partnering with these organisations provides a cost-effective approach to integrating a message, whilst communicating with harder-to-reach consumers.

In GB, Smart Energy GB have also partnered with National Energy Action (NEA) to deliver the 'Smart Energy GB in Communities Fund'.³ This provides a route for partners, such as charities and housing organisations, to apply for and receive funding to support vulnerable customers with smart meters. The target audience for this is those who may find it difficult to engage with the smart meter rollout, e.g. people with low levels of digital literacy. The aim to identify two types of activity:

- Direct activity: Direct contact with people in the target audience, such as face-to-face events, advice or via telephone
- Indirect activity: Communication or marketing channels used to indirectly reach the target audience and convey information about smart meters, such as the use of advertising (e.g. newsletters, posters, leaflets and radio adverts)

An interviewee reported that these worked well with engaging hard-to-reach groups.

Installation

3.2.6. Physical installations of the RoI smart meter rollout

There has been a successful rollout of the meters in RoI with installations being delivered largely on schedule. This contrasts with the GB rollout where there have been many delays to

² Example of a Smart Energy GB campaign with sports personalities: [Keep in touch to tackle financial struggles \(smartenergygb.org\)](https://www.smartenergygb.org)

³ <https://www.nea.org.uk/wp-content/uploads/2024/01/In-Communities-Fund-Guidance-Document-2024-FINAL.pdf>

reaching installation targets.⁴ In RoI, consumers are given the option to decline a smart meter but nationally, the refusal rate for smart meters is fairly low, at about 5%. One interviewee cited this as one of the key benefits of the RoI rollout; the network-led and opt-out system means ‘the customer doesn’t have hurdles to jump to get a smart meter’ and therefore there has been an accelerated installation of smart meters.

Multiple interviewees observed that the effective and timely communication about smart meter installations has been key to the success; consumers are given an installation time and there is flexibility to change the slot, usually fairly smoothly, if needed. This approach was contrasted to the consumer journey in GB where it can be a fairly complicated process for consumers to understand if they can receive a smart meter and organise for one to be installed.

3.2.7. Avoidance of installation being used as a sales opportunity

Multiple interviewees highlighted the importance of ensuring that the smart meter installation process is not used as an opportunity to sell other technologies or packages to the consumer, for example a heat pump. This to avoid situations where the installation is used as an opportunity to take advantage of the customer and miss-sell them technology or solutions. In both the GB and RoI rollouts there was a policy decision to prevent this from happening and there is governance and guidance in place to stop installers from doing it. Interviewees were not aware of this issue significantly materialising in either country, with it not coming up frequently in the monitoring processes, customer feedback or complaints. Therefore, this suggests it is a risk that has been largely avoided in both rollouts.

Experiencing smart meter benefits

3.2.8. Consumers experiencing the benefits of smart meters

Many interviewees commented on the positive impacts experienced by consumers as a result of the smart meter rollout in both GB and RoI. In particular, there are a lot of potential opportunities for fuel poor and vulnerable customers, such as more accurate billing and more oversight over their energy consumption. An interviewee highlighted that in GB before smart meters there were many complaints from consumers about bills being incorrectly calculated. Smart meters have provided more accurate billing for consumers and reduced the number of complaints. There have, however, been reported issues of faulty smart meters leading to inaccurate bills. In RoI CRU have set up a dedicated complaint function for resolving complaints when the meter is taking inaccurate recordings.

The interviewee also referenced the key benefit of more oversight over energy consumption and the increased understanding of how that connects to their bills, particularly due to the use of in-home displays (IHDs).

One interviewee commented that in recent years, the benefits case for smart meters has also improved due to the opportunities for demand side response (DSR), which started being trialled in GB homes in 2023.

⁴ See paragraph 3.3.2 for more information on the challenges around smart meter installations in GB

3.3. Lessons Learned – What challenges were faced in the GB and Rol smart meter rollout?

This section focuses on the key challenges of the smart meter rollouts in GB and Rol and the elements of the programme design that have led to issues for consumers or a slower uptake in smart meters. To identify these, interviewees were asked questions including:

- What problems and challenges were encountered in the rollout of smart meters?
- Were any steps missing, or needed changing, to deliver an effective consumer engagement campaign for smart meters in GB/ROI?
- What work has been undertaken to target hard to reach customers? Did this achieve the desired result?

These insights identified the key challenges in both the GB and Rol rollout and interviewees' views on why they occurred. Identifying these risks ahead of the design stage of the NI rollout allows the mitigations to be put in place to reduce, or completely avoid, these issues.

The learnings about the challenges faced in other rollouts are summarised in the table below and further detail on each is provided in the sections below.

Stage in the consumer journey	What were the challenges?
Pre-installation communication	<ul style="list-style-type: none"> • Communication around smart meter installation
Installation	<ul style="list-style-type: none"> • Installation challenges in GB • WAN network challenges in GB
Ongoing communication	<ul style="list-style-type: none"> • Post installation communication • Controlling negative media
Experiencing smart meter benefits	<ul style="list-style-type: none"> • Communication of smart meter benefits • Smart tariffs in Rol • Access to data • Remote switching
Repair and maintenance	<ul style="list-style-type: none"> • Repair and maintenance of smart meters and IHDs

Pre-installation communication

3.3.1. Communication around smart meter installation

A key challenge for GB smart meter installations has been regarding the communication process for them. In many cases, consumers have had difficulty contacting suppliers and booking an appointment to receive a smart meter. An interviewee commented that in some cases, consumers have had long-wait times when contacting energy suppliers and are often transferred to the wrong team. Another observed that good communication in the build up to the installation visit is important to remind consumers of when the installation is scheduled to minimise the risk of no-shows or cancelled visits.

One interviewee cited research carried out in the early stages of the GB smart meter rollout which found there were varied communications from suppliers around smart meter installations. Some suppliers approached consumers by communicating the benefits of smart meters whilst

others incorrectly communicated safety risks with old meters, such as fire hazards. The latter led the creation of unnecessary fear for consumers, which likely led to distrust in suppliers and the smart meter programme overall.

Installation

3.3.2. Installation challenges in GB

In GB, the smart meter rollout has been slower than the targets set by government. There are multiple factors responsible for this and interviewees provided insights on some of the reasons behind the delays. A key factor is the physical barriers of getting access to and installing meters in some properties. In urban areas, installers have abandoned appointments, because of logistical issues, such as not being able to park their van. An interviewee suggested that suppliers had prioritised where it is easiest to install a smart meter (e.g. home owners outside of city centres where it is easier to install). This meant that specific groups, such as young, urban living, renters, have not received smart meters as quickly as other groups.

3.3.3. WAN network challenges in GB

Any decision around Wide Area Network (WAN) infrastructure will need to carefully consider all consumer groups.⁵ Although there are differences in rural household types and geography, the WAN challenges in Scotland provide useful insights on potential challenges in NI. Interviewees flagged this as a key issue in the GB rollout. In parts of rural Scotland, a Radio Teleswitching Service (RTS) is used which utilises a radio signal to communicate with electricity meters to switch between peak and off-peak tariffs. It was a technology introduced in the 1980s and a decision has been made to end this service by 30th June 2025. The intention is to switch these consumers to smart meters but interviewees pointed out the challenges associated with installing smart meters in all the properties with RTS. Many of these properties are very rural and isolated with poor phone signal and as most smart meters use a WAN to connect their energy meter to their supplier, these properties will face challenges with their smart meter receiving signals, meaning the smart meter will not function correctly.

Whilst this exact challenge may not exist in NI, it provides a good example of why it is necessary to consider all consumer types in the design of the smart meter rollout. There will be geographical areas where it is more challenging to install and connect smart meters and this needs to be captured in the design stage. If there are areas that can not currently accommodate smart meters this needs to be carefully considered and consumers need to be provided with a clear solution.

Ongoing communication

3.3.4. Post installation communication

In GB, suppliers are obligated to provide energy efficiency advice at the point of install, for example a tutorial video, or a fact sheet. Despite this one interviewee commented that 'aftercare support has been lacking in the GB rollout. It was pointed out that throughout the GB rollout, there has been a range in supplier performance, both in approach and quality of support, when educating consumers. One interviewee indicated that testing has been carried out on a small number of consumers to ask if they received energy efficiency advice as part of the installation process. There has been low levels of recall that energy advice has been provided, which may be partly due to lack of concentration / poor recall but it is unclear if this advice has been provided consistently.

⁵ The smart meter Wide Area Network (WAN) is a telecommunications network that connects the communication hub in the electricity meter to the company responsible for collecting the data.

Interviewees suggested that consumer engagement and support is essential to aftercare, to prevent the customer journey being negatively impacted. At both the point of installation, and following installation, customers should be provided with a demonstration of how smart meters, and IHDs if relevant, work and how to access their benefits. Here, organisations with a high level of public trust could play an important role. An interviewee believed that there should be an increased focus on vulnerable consumers receiving post-installation support (e.g. a phone call asking if they have any questions around how to use a smart meter effectively). As witnessed in the GB rollout, vulnerable groups are often less likely to come forward with smart meter use questions. Therefore a clear and proactive strategy around engagement should be established.

3.3.5. Managing negative media

During the GB smart meter rollout, several myths and incorrect information were spread that caused confusion and hesitation amongst some consumers. In RoI an interviewee pointed out that myths around smart meters had been more prevalent in parts of the country, notably border counties, which could explain the higher rejection rate. Myths included that smart meters:

- Emit radio waves that could damage the customers health,
- Could spy on the consumer and thereby breach their privacy,
- Came at a cost to the consumer to install, and
- Increased the vulnerability of consumers to burglars who would know when they were out of their home.⁶

There have been groups of consumers that have been vocal about their concerns around smart meters. There have also been instances where these myths were negatively portrayed in media, adding to the misconceptions.

Countering these myths in a timely fashion is essential. A key lesson learnt in the GB rollout is that when a story breaks, a reactive approach must be taken to make clear that the story is inaccurate e.g. contacting a reputable news outlet to confirm that the data they are using is accurate. This needs to be paired with a proactive approach to release positive news on smart meters, communicating the benefits to communities and individuals. An example of this includes educational material (physical and digital) on how to understand dynamic tariffs and explaining how it has positively impacted others. It could also include proactively engaging with news outlets, public figures and providing in-person support in community spaces (e.g. information stands in supermarkets or community centres).

One interviewee provided insights from the water smart meter rollouts in England, where one water company set up community engagement centres at local coffee shops, pubs, churches and sports grounds to inform consumers about smart water meters. This is an opportunity to explain what smart meters mean for the consumer, answer questions and make them aware of extra support and advice.

Another interviewee commented on needing to find the balance between providing myth-busting communications to try and reduce consumer concerns and not adding 'fuel to the fire' by making more consumers aware of the inaccurate information.⁷

Experiencing smart meter benefits

3.3.6. Communication of smart meter benefits

Interviewees emphasised the importance of having a clear and structured approach for communicating the benefits of smart meters.

⁶ <https://www.eonnext.com/blog/53-Busting-smart-meter-myths>

⁷ [Community events - Carlton \(eswater.co.uk\)](https://www.eswater.co.uk/community-events-carlton)

One suggestion included avoiding communicating that a smart meter would save consumers money as this is misleading and often not the case, unless associated with relevant behaviour change. Another interviewee stated that communication needs to be focused on engaging with your energy consumption to save money, rather than just saving money through installing a smart meter. They also emphasised the importance of avoiding continually changing the communication approach around smart meters. It was observed that pivoting messaging is noticed by groups of people and can reduce trust. Whereas a consistent communication approach that tells the story of how smart meters can support consumers and the transition to net zero can improve consumer understanding and trust.

The installation of smart meters needs to be combined with advice on how to use them to maximise the benefits. However, the National Audit Office (NAO) reported that in GB, some energy suppliers had failed to provide adequate advice on energy savings during installation. It found that 27% of customers did not recall receiving any advice on how to use their smart meters to save energy.⁸

Similarly, in RoI there has been insufficient awareness about the benefits of smart meters. One interviewee highlighted that it is important to be clear with consumers that just because they are on a smart meter, it doesn't mean they are on a smart tariff. Interviewees suggested that education around smart meters from the very start of the rollout, before smart meters start to be installed, is essential for public buy-in and to ensure the immediate benefits of smart meters. This needs to be tailored to demographics of how it can benefit the household. There will be some consumers that will struggle to engage with ToU tariffs, for example those dependant on medical equipment who cannot shift their demand. There should be solutions available to ensure those consumers aren't left behind.

3.3.7. Smart tariffs in RoI

In RoI one element of the consumer journey design means that once a consumer has switched to a ToU tariff they cannot switch back to a non-smart tariff or an old meter type.⁹ Whilst there are ways for suppliers to still provide equivalent fixed rate tariffs one interviewee observed that the requirement has unsettled some customers who did not fully understand what this meant and thought that getting a smart meter would force them onto a more expensive tariff.

There will need to be a careful decision on how the policy is designed around this to confirm:

- What the customer journey / options should be for switching to smart tariffs, and
- How this should be communicated to the customer

Interviewees also reported on a lack of cost competitive tariffs being made available to consumers in the early stages of the RoI rollout. The Competition and Consumer Protection Commission (CCPC) highlighted that of the calls their helpline had received on smart meters, there were:

- 19 consumer cases where the consumer wanted to move off a smart tariff, as it was more expensive than their previous tariff.
- 16 consumers reporting that the smart tariff plans are more expensive than non-smart tariff plans (they did not mention that they were declined the option to move back to their old tariff)
- 14 consumers who transitioned to a smart tariff, but their bills increased substantially (however this may have been related to general energy price rises at the time).

There are now more tariffs becoming available to encourage consumers to engage with ToU tariffs, particularly if they have low carbon technologies. However, in RoI there is still a relatively

⁸ <https://www.lse.ac.uk/GranthamInstitute/news/are-smart-meters-good-for-uk-households/>

⁹ [Smart Energy Plans | Bord Gáis Energy \(bordgaisenergy.ie\)](https://www.bordgaisenergy.ie/)

low uptake of smart tariffs, which has slowed the full benefit of the rollout being realised. Therefore, interviewees recommended that how microgeneration, and specifically how exporting electricity, aligns with and can be supported by ToU tariffs should be considered in the design stages of the rollout.

3.3.8. Access to data

A few interviewees commented on the lack of data visibility being a key issue for consumers in the RoI rollout. Firstly, consumers can't get access to their data without signing up to a new tariff. This creates an additional barrier to consumers engaging with their energy consumption data and adjusting their behaviour to save money on their bills. Without having this infrastructure in place for consumers to access their data consumers have been less able to realise the benefits of the rollout, demonstrated by the low uptake of ToU tariffs.

Secondly, in the early rollout consumers in RoI could no longer get meter readings from suppliers unless they had signed up to a smart tariff, so if they want to check if the bill matches the meter readings, they cannot do this and verify if they are being overcharged. For consumers who are used to regularly check their meters and estimate their energy cost, smart meters made it more challenging to have that oversight. The introduction of the Smart Meter Data Access Code (SMDAC), which is due shortly, will help alleviate this issue by facilitating suppliers in accessing smart meter data (whilst complying with relevant protection requirements) to support them in providing offers to customers (both in terms of ToU tariffs and other services and insights).¹⁰

3.3.9. Remote switching

A key issue in GB caused by smart meters has been the ability for energy suppliers to remotely switch customers from direct debit to prepayment meters. There have been reports of suppliers carrying out this switch without the permission of customers and leaving them at risk of running out of energy and experiencing higher energy costs, due to higher unit energy costs associated with prepayment tariffs.¹¹ An interviewee observed that whilst suppliers can swap non-smart meters to prepayment meters, this requires a physical meter change in the property. Whilst this has caused some distressing experiences for consumers, there is at least an awareness that this switch is happening, or has taken place. With the ability to remotely switch, there have been cases of consumers being away from their property, for example when they are on holiday, and returning to find they have been switched to a prepayment meter.

Recommendations were made that appropriate regulations and safeguarding is put in place to prevent situations like this happening in NI.

However, another interviewee commented on the potential benefits of remote switching when used correctly. For example, in a situation where a customer has just come out of hospital, it could be beneficial to be able to remotely switch from prepayment to credit to remove the worry of money running out and the electricity being turned off. Therefore, there needs to be careful policy decision around this, including clear governance and appropriate customer protection.

Repair and maintenance

3.3.10. Repair and maintenance of smart meters and IHDs

It is essential to have a structured post-install support mechanism in place if smart meters become faulty. Interviewees stressed the importance of aftercare and sustaining the benefits of smart meters long-term. This includes a clear process that enables the quick replacement of a faulty smart meter. Interviewees stated that the post installation stage can be one of the most problematic stages of the consumer journey in the GB rollout as there was more focus on the

¹⁰ [Smart meters and services | CRU.ie](https://www.cru.ie/en/research-and-analysis/publications/2022/04/smart-meters-and-services/)

¹¹ <https://www.bbc.co.uk/news/business-63554879>

earlier stages, including appointment setting and bookings. Interviewees described situations where consumers were given no timescale by suppliers to resolve issues.

Interviewees also flagged issues that have been experienced with consumers' IHDs not working, either from the point of installation or later. For consumers in GB, the IHD is a key part of the installation that they engage with and often what they understand to be the smart meter itself. It was pointed out that the issue can sometimes arise due to the time constraints on smart meter installers. Often the commissioning process may require the installer to request the back office to action a change which may take some time. If installers are working towards installing a set number of smart meters each day, or if consumer wants them out of their property quickly, or if it will take a day or two to process, the installer is more likely to leave before the smart meter, and its IHD, is fully commissioned and functioning. Organising a second installer to commission the smart meter / IHD is an extra step for consumers that may cause them to disengage with the process.

In GB, there is no obligation on any party to repair or replace IHDs one year after install. There is a requirement set on suppliers to provide this service in the first year but the lack of defined responsibility after that was an issue one interviewee cited as a weakness of the smart meter rollout design in GB. Without an obligation in place, there have been varied approaches taken by different suppliers in GB, with some offering free replacement meters, but there have also been reports of consumers being charged for a new one or not being offered one at all. Consumers can also be directed to their online account / app to view their consumption data but for many, the real time display is the key interaction tool which enables them to access the benefit of having a smart meter. In addition, the online account / app version will not suit all consumers, particularly those who are less comfortable using digital tools.

3.4. Lessons Learned – What could be done differently in NI or if they were delivering the smart meter rollout again today?

This section focuses on what interviewees thought they would do differently if they were delivering a smart meter rollout again. Responses included reflections on both avoiding challenges they've faced previously or due to a different landscape today compared with when their rollouts started. To identify these, interviewees were asked questions including:

- What were the areas of consumer focus when implementing the smart meter rollout? What would you do differently today?
- What work has been undertaken to target those consumers that are hard to reach? Did this work as desired? How can any issues be avoided for the NI consumer?
- Looking to the future, what is being planned for users of smart meters that could be incorporated into the NI rollout design?

The questions were adjusted based on the interviewee and their role in the smart meter rollout.

The insights identified informed ideas from stakeholders who have been involved in smart meter rollouts on how to best design the rollout in NI. These learnings will need to be considered by those designing the NI rollout with the specific market context in mind.

The learnings are summarised in the table below and further detail on each is provided in the sections below.

Stage in the consumer journey	What would be done differently?
Policy / Governance decisions affecting consumer experience	<ul style="list-style-type: none"> • The approach to IHDs and smart meter apps • Setting targets around fully functioning meters • Futureproofing of smart meters
Pre-installation communication	<ul style="list-style-type: none"> • Targeted messaging • Clearer communication around the rights for different tenure types
Installation	<ul style="list-style-type: none"> • Phased approach to installation • Practice when consumers refuse a smart meter

Policy / Governance decisions affecting consumer experience

3.4.1. In Home Displays (IHDs) and Smart Meter apps

There were some mixed views captured on the benefits of IHDs, however there seemed to be a general belief that a combination of offering mobile phone app solutions and IHDs was most appropriate. One interviewee suggested that there is greater long-term value in providing an app solution to consumers, as IHDs are perceived as limited in their ability to benefit consumers. It was pointed out that now technology has advanced, spending money on IHD equipment may not be the best investment. Other interviewees offered a conflicting view that some consumers prefer IHDs as they are 'visible' and are good for getting the consumer engaged as soon as the meter has been installed as well as helping them to understand the benefits. It was suggested that accessible IHD's have been well received in the GB rollout and

should be provided upon request.¹² IHDs have proved to be highly engaging once installed, especially for consumers wanting to save money on their energy bill following the energy crisis.

Interviewees pointed out that individual preferences or needs should be considered. For example, when installers fit a smart meter, they should give the option that the resident may want to download an app, or they provide the resident an option of an IHD (especially to vulnerable groups). An interviewee pointed out that if an IHD isn't offered at the point of installation consumers that aren't tech savvy or vulnerable groups may not feel empowered to ask for one.

One interviewee observed that an app and an IHD have entirely different customer journeys. The app for instance will focus on the app owner, and not the family as a whole who can see the display in the household. Whereas the IHDs focus is to provide consumers with real time data on their energy consumption, giving a better understanding of their overall use (e.g. energy intensive appliances or indicating when appliances are left on).

An interviewee suggested that consumers should have the ability to request an IHD and that IHDs should be offered to vulnerable customers. Many interviewees stated that accessible IHDs should be available to those that need them e.g. those with visual impairments.

3.4.2. Setting targets around fully functioning smart meters

In GB, a key performance indicator (KPI) of the smart meter rollout is the number of meters installed. Interviewees pointed out that this does not capture the full picture as there are cases where a smart meter has been installed but is not fully functioning as a 'smart' meter. However, this installation is currently counted towards the total number of installs KPI despite such installations not providing benefits to the customer.

Interviewees emphasised the importance of setting targets around smart meters being fully operational, rather than just installed in properties.

3.4.3. Futureproofing of smart meters

Interviewees from both Rol and GB observed that the technology landscape today is very different to when they started their smart meter rollouts. Therefore, there are changes stakeholders are considering now that could be incorporated into the NI rollout to support with 'futureproofing' the rollout. One interviewee shared some suggestions of new activities and packages that have been considered in Rol that are worth considering in the design of the NI rollout. For example, with the growth of microgeneration technologies it will be important to consider how to offer the best tariffs for consumers with these technologies. This could include options to offer these consumers different tariffs for import and export. Similarly, with the growth of electric vehicles and the development of Vehicle to Grid (V2G) charging there should be consideration of how smart meters can best support these technologies.

Pre-installation communication

3.4.4. Targeted messaging

A key point raised by multiple interviewees was the requirement of targeted messaging for different stakeholder groups. Different groups of people will have different interests in smart meters and reasons they may want to have them installed. Similarly, different groups will have different experiences of and challenges with smart meters once they're installed. A recent

¹² The [NEA definition](#) of Accessible IHDs in GB: displays to be provided alongside smart meters that have been specifically designed for people who are blind, partially sighted, or have difficulties with dexterity or memory loss. The accessible IHD has additional features that could make tracking energy usage easier.

Citizens Advice report reviewing the GB smart meter rollout has provided insights on some of the key reasons people choose to install a smart meter.¹³

Interviewees suggested that the rollout of smart meters should have the key message of giving consumers more control over their energy bill and greater visibility / transparency of their data. Once this messaging has been received by the consumers, stakeholders (e.g. suppliers, the government / regulator and/or the network company) can then start promoting the benefits of moving onto new tariffs.

One interviewee mentioned that the messaging material itself should also avoid text around net-zero or a logo in the top corner as consumers would be more likely to believe they are being sold something, which consumers generally do not want. They suggested that if you push consumers too much with the messaging around the benefits of smart meters they will start to become fatigued to the messages and possibly even wary of them. However, a separate interviewee suggested that net-zero messaging has had more buy-in in recent years and could be included as context to promote smart meters.

Interviewees indicated that Smart Energy GB had a good understanding of consumer sentiment on smart meters. Smart Energy GB gained insight nationally from 10,000 consumers thoughts and views on smart meters, understanding if they would accept or decline a meter, and for what reason. This information was captured and analysed to build into their marketing approach .

An interviewee suggested that there should also be consideration when communicating to different communities. The RoI rollout, first put smart meter messaging out in English and Irish, however in hindsight, they thought it may have been beneficial to help and engage with other communities as well (e.g. Polish). Moving forwards, the interviewee suggested that there should be educational material translated to consider all community groups and provided through an accessible website.

In the RoI smart meter rollout, using ‘community champions’ and mentors to build trust in local communities was considered an effective strategy. The champions were early adopters who ESB Networks encouraged to go and talk to their local communities to help alleviate fears and clearly communicate smart meter benefits. The mentors were given training by ESB to further help with this process. This method was a good example of proactively engaging with communities and building trust, which is especially relevant to some vulnerable groups. One interviewee suggested that MPs could also be good stakeholders to discuss and communicate the benefits of smart meters. They also suggested identifying ways to bring smart meters into everyday conversations, for example through using the weather channel to comment on how the weather could affect generation of electricity and bills for consumers on a particularly sunny day. These stakeholders would need to be educated on smart meter but could be a key voice in convincing communities to adopt the technology.

3.4.5. Clearer communication around rights for different tenure types

Interviewees also stated that more could have been done in the GB rollout to support renters and there has been a lower installation rate in rental properties. There has been a lack of clarity in GB about the rights of renters in receiving smart meters, with some tenants unsure whether they were allowed to have on installed or if permission was required from their landlord. Although Smart Energy GB have provided messaging around the rights for renters around smart meters this message does not seem to have been fully understood or heard by all groups.¹⁴

¹³ [Get Smarter: Ensuring people benefit from Smart Meters - Citizens Advice](#)

¹⁴ [Smart Meters for Renters | Smart Energy GB](#)

Installation

3.4.6. A phased approach to installation

There were some observations that the GB rollout could have been delivered more cost and time effectively if they had a coordinated smart meter rollout that delivered on a regional or street by street basis. As the rollout is supplier led, it is not possible to roll out smart meters on a street by street basis due to each street likely having houses served by multiple different suppliers. This means that it is difficult to create efficiencies for suppliers by reducing the time travelling between installations. In addition, it is quite confusing for consumers to understand when they will be able to have their smart meter fitted.

Interviewees suggested a network led approach is likely to also provide a clearer consumer journey as it would avoid situations where a consumer's neighbour receives a smart meter but that consumer cannot have one because they are with a different energy supplier with a separate rollout approach. It would also allow installers to cut back on travel time by focusing on a smaller geographic area.

3.4.7. Practice when consumers refuse a smart meter

Whilst it is technically the tenant's decision, there is a grey area around cases where the smart meter replacement may cause material changes to the property. Also, in most rental properties, the tenant pays the energy bills so there is little incentive for landlords to give permission to install one. The interviewee recommended rental properties are considered in the design of the rollout and its communication strategy in NI.

A few interviewees observed that there needs to be a clear and careful communications plan for situations where consumers reject a smart meter. There could be many reasons for consumers rejecting a smart meter including the hassle factor of booking and being available for the installation or due to scepticism about the meters themselves (for example, due to myths circulating in media).

Non-smart meters are becoming harder to procure as manufacturers focus on producing smart meters. Therefore, it is likely that it will become more challenging to provide consumers with non-smart meters and once their meter reaches the end of its life, it will need to be replaced by a smart meter. However, there is the option to not enable the smart functionality in the meter if the consumer chooses.

One interviewee recommended that the communication strategy makes clear that consumers will need to have a meter replacement at some point, and that installing one earlier could allow them to change their energy consumption patterns and start saving money sooner. They suggested approaching the communications as 'we are coming to replace your meter' instead of asking the consumer 'do you want a smart meter?'

3.5. Risks and mitigation

The table below provides a summary of the risks identified by interviewees and the mitigations proposed.

Risks identified by interviewees	Suggested mitigations from interviewees
Consumers do not fully understand smart meters, how to access them and their benefits	<ul style="list-style-type: none"> • A clear and consistent messaging campaign needs to be delivered from the start, with the same messages (albeit potentially tailored to the purpose and audience) being delivered from all relevant stakeholders (one version of the truth). • A steering group of all key stakeholders, set up early in the process and maintained throughout the rollout to agree consumer journey and approach to communication (including aligning definitions). • Establish community champions programme or recruit public figures / trusted voices to communicate the benefits of the smart meter rollout. • Set up community engagement stations in local communities (e.g. at supermarkets, cafes, town halls) to provide advice and answer questions on smart meters. <ul style="list-style-type: none"> ○ Funding could be provided to support these community initiatives, as done through the Smart Energy GB and NEA communities fund¹⁵ • Targeted messaging around the benefits based on the priorities and needs for different consumer groups.
Myths on smart meters start circulating in communities / in the media	<ul style="list-style-type: none"> • Take a proactive and reactive approach to negative media / myths circulating <ul style="list-style-type: none"> ○ Reactive: Identify negative news stories / media and respond appropriately, e.g. challenge inaccurate claims, respond with alternative views. ○ Proactive: Deliver positive news stories from the start, engaging with media outlets, community champions and public figures to support this messaging.
High rejection rates for installation	<ul style="list-style-type: none"> • Approach communications as 'we are coming to replace your meter' rather than 'do you want a smart meter?'. Some suggestions not to over emphasise the benefits of smart meters as consumers may feel like they're being pushed. • Carry out customer research at the outset, identifying concerns and reasons behind potential refusals. Pilot programmes could also feed into this.

¹⁵ [Communities Fund Guidance 2024](#)

Issues with smart meters post-installation not resolved	<ul style="list-style-type: none"> • Need clear governance around roles and responsibilities for maintenance of smart meters, and IHDs if included in design. This should include responsibility over the repair and replacement over smart meters, and IHDs if relevant, for the duration of their lifetime.
Issues with installation visit	<ul style="list-style-type: none"> • Clear communication in the lead up to installation to remind consumers of appointment time, with aim of reducing no-shows / last minute cancellations.
Low installation rate in rented properties	<ul style="list-style-type: none"> • Include rental properties in the design of the rollout i.e. rights around making the decision to install a smart meter (landlord or tenant) and clearly communicate this.
Groups being left behind in smart meter rollout and benefits	<ul style="list-style-type: none"> • Carry out mapping exercise, possibly supported by customer research, to understand the key characteristics of vulnerable groups in NI. • Provide support and advice in accessible formats (e.g. content that works with screen readers, translated into multiple languages, signed videos). <ul style="list-style-type: none"> ○ This could include follow-up communication with consumers identified as being in vulnerable situations to answer any queries. • Avoid using a one-size-fits-all approach and instead use tailored engagement strategy for different consumer groups. Community champions could be used to actively reach out to vulnerable groups. • Accessible IHDs provided to all consumers that would benefit. Ensure all installers and those engaging with consumers on smart meters are aware that they are an option.
Benefits of smart meters are not fully realised	<ul style="list-style-type: none"> • Post-installation support should include information on how to use smart meters, access their data and ToU tariffs. Monitor whether this support is being provided. • Provide target messaging to consumers with low-carbon assets (e.g. electric vehicles or heat pumps) to help them understand how their smart meter can support them. • Futureproof smart meters as far as possible to allow them to support new technologies, such as V2G.

4. Recommendations and Conclusion

4.1. Recommendations

The following recommendations are based on interviewee suggestions when introducing smart meters to Northern Ireland.

Stage in the consumer journey	Key Recommendations
Policy / Governance decisions affecting consumer experience	<ul style="list-style-type: none"> • A communication and engagement strategy will need to be developed as part of the early stages of the NI smart meter rollout design. The recommendations below should be considered in the setting of this strategy. • Understanding key vulnerable consumer characteristics and how to support their consumer journeys in the rollout. Interviewees suggested that NI should research and map key vulnerable consumer characteristics in the design phase of the rollout. Messaging and extra engagement (other than digital) should be tailored to these vulnerable characteristics to ensure that they are not 'left behind'. • There should be a focus on the number of meters installed and which are fully functioning in the setting of targets and KPIs for the NI rollout, rather than simply a focus on meters installed. • Government bodies should work closely with industry from the start of the rollout. This proved to be a successful methodology in the GB smart meter rollout. Workshops were held with representatives of key stakeholder groups (government, networks, suppliers etc.) which kept these parties informed on progress updates, challenges and best practice • All consumer types, geographies and meter types should be incorporated into design of rollout, including alternative solutions if some consumers cannot get a smart meter. As demonstrated by the WAN challenges in rural Scotland, there are likely to be areas or meter types that are more challenging to install smart meters and interviewees recommended undertaking research to identify these at the start of the process and building them into the rollout design. • A decision will need to be made about the inclusion of IHDs in the smart meter rollout. Many interviewees believed they did not need to provided to all households but should be offered to consumers that would benefit from them, either because they prefer engaging with a real-time display or because are less digitally engaged. For those that do not receive the IHD there needs to be an easy way to access the data (such as an app on their phone). The availability of this option, and how to access it, needs to be clearly explained to the consumer. Accessible IHDs should be provided to

those that need them (e.g. consumers with visual impairment) and what this looks like in practice should be considered early on in the design stage.

- **Trial locations** could provide key insights to the rollout of smart meters in NI. This proved successful in the GB rollout as **trials gave insight into consumers opinions** on receiving smart meters. These trials, whilst taking place later into the GB rollout, provided useful insights on best practice to communication and the challenges different consumers face. Using trials at the start of the rollout in NI will allow these lessons to be captured early and feed into the nationwide rollout.

Pre-installation communication

- There should be a **clear and consistent approach to consumer engagement** taken, which incorporates input from key stakeholders. We recommend early set up of a **steering group** attended by key parties (e.g. UR, DfE, NIEN, electricity suppliers), who should be involved throughout from programme. For example, it should feed into the mapping of consumer journeys from the start of the process and agree terminology (e.g. tariff definitions). It should also monitor progress, barriers and customer and media sentiment towards smart meters.
- Smart meter **messaging should be tailored to specific consumer demographics as much as possible**. This would increase the engagement of certain consumer groups, if they understand the key features which could benefit them e.g. a young family may benefit from using a smart meter to notice when appliances are left on. Therefore, this should be communicated to these groups, instead of generic smart meter information.
- **In addition, key occupancy types should not be 'left behind'** when receiving a smart meter, as was seen with the **privately rented sector** in the GB rollout. This is because the landlord was not affected, and the consumer was unaware they could request one even though they did not own the building. To address this, interviewees suggested that there should be more emphasis on educating this and other similar demographics, so that they better understand their role and options in the smart meter rollout.
- Community champions and local partnerships can provide effective ways to communicate the smart meter rollout and its benefits to consumers, particularly to those who are less digitally engaged.
- As part of the consumer journey planning there should be a **clear process for setting up the installation visit that makes it as easy for the consumer as possible**. There should be **clear communication channels** for consumers, for example to request a smart meter or receive a message about an installer coming to their area. This communication should include a timeframe and an overview of what to expect from the process. Where possible the installation window (i.e. the time the installer will be arriving) should be kept to a minimum to keep reduce disruption for the consumer. Reminders of the appointment should be provided in advance of the visit.

Installation	<ul style="list-style-type: none"> • The installation process should not be used as a sales opportunity, e.g. to sell a new heating system to the consumer. There need to be clear regulations in place to address this, and these need to be communicated clearly to installers. • Interviewees suggested a network-led approach that takes a phased approach (on a geographic basis) to installations and allows consumers to 'opt-out' as the most effective way to support a higher installation rate and clearer consumer journey. A phased geographic installers can create efficiencies by reducing travel time between properties and it is a clearer message for consumers to understand when they can receive a smart meter. • Where possible, set up mechanisms to reduce the physical barriers to installing smart meters (e.g. issue of installer not being able to park near the property).
Ongoing communication	<ul style="list-style-type: none"> • Provide clear communications to consumers on how they can engage with smart meters to benefit from them. This should include providing consumers with information as part of the installation visit as well as follow up information. • A strong proactive and reactive approach should be taken to minimise negative media around smart meters. <ul style="list-style-type: none"> ○ Proactive targeted messaging should be enacted in the NI smart meter rollout. Community champions were a successful method for building community trust in the RoI rollout and should be considered. Targeted messaging to various demographics should also be considered e.g. indicating when devices have been left on for young families. ○ A strong reactive approach should be taken to stop myths spreading via media channels. Smart Energy GB debunked myths using this approach, by efficiently fact checking what is being reported. Interviewees suggested that there should also be myth-debunking material provided by key stakeholders (e.g. suppliers) that consumers can refer to when receiving new inaccurate information. Some suppliers in GB have good counter-information to deal with myths, however the consistency of this can vary between suppliers.
Experiencing smart meter benefits	<ul style="list-style-type: none"> • Cost effective smart tariffs being in place at the point of installation will help support consumers engage with their smart meters and realise benefits early on. • There should be a simple process for consumers, and suppliers, to access smart meter data. A policy decision will need to be made about whether this is done through IHDs or phone apps but the solution should be easy for consumers. The solution also needs to comply with all relevant data protection principles. • Avoid the messaging that installing smart meters will save consumers money. Consumers will need to change their behaviour to save

	money so there will need to be the support in place to support them in making changes.
Repair and maintenance	<ul style="list-style-type: none"> • There should be clear roles and responsibilities set around the repair and maintenance of smart meters, and IHDs if relevant. This should cover the lifetime of the technology and there should be a clear route for consumers to follow if they need their system repaired or replaced.

4.1.1. Identification of areas for further review

A key message that came up in many interviews was the importance of a tailored approach to consumer engagement. This would require an understanding of the key groups, with a focus on vulnerable consumers, and exploring:

- what their motivations are likely to be to want to receive a smart meter
- the ways they can benefit from a smart meter
- their concerns and the barriers they're most likely to face.

This would feed into the communication strategy and determine how to engage with each group, and what information to present to them.

There are valuable insights that can be taken from the GB and Rol rollouts to feed into this understanding. However, there will be particular characteristics of the NI market, and its consumers, that will need to be incorporated into the rollout design. A key example of this is the high proportion of prepayment meters in NI compared to GB and Rol.

In addition, by delivering this rollout later than GB and Rol there is a different landscape that will need to be incorporated into the approach. For example, consumer attitudes today towards climate change are very different to when the GB rollout started.

Therefore, the rollout design would benefit from additional research on the NI market to supplement the lessons learned from other rollouts.

4.2. Conclusion

It is critical that consumers are kept at the core of the design of the smart meter rollout in NI and this report provides a series of recommendations to support this.

The interviews carried out through this research have provided valuable insights into the lessons learned in both the GB and Rol that can be incorporated into the design of the NI rollout. The interviewees covered a range of stakeholder types and therefore covered a range of perspectives on the rollout.

Each recommendation will need to be considered alongside the wider policy context of the smart meter rollout design, such as technology availability and cost considerations. Any options for the rollout design to create additional benefit to the consumer of will need to be weighed up against the practical and economical feasibility. For example, in the context of IHDs some interviewees recommended the best solution for consumers to have the options of an IHD or phone app to display their data. However, the option of providing IHDs will need be weighed up against their unit cost but also the complexity they add to the communications infrastructure and rollout design. There will be cases where the additional benefit do not justify the additional complexity and cost, particularly when the costs will be covered by consumer bills. Therefore, each decision around the smart meter rollout should consider the impact of the consumer, and the lessons learned from other rollouts.