

Seventy-second report of Session 2022-23

Department for Energy Security and Net Zero

Update on the rollout of smart meters

Introduction from the Committee

Unlike traditional meters, which register a running total of energy used, smart meters can record half-hourly price and consumption data, and provide data on energy demand and automatic meter readings to energy suppliers. When linked to in-home displays, smart meters also provide consumers with real-time information that helps them to monitor and reduce consumption and costs.

The Department for Energy Security and Net Zero (the Department), and its predecessor Departments have led the Smart Metering Implementation Programme (the Programme) since 2008. Smart meters are installed by energy suppliers who are regulated by Ofgem. In 2011, government set out a vision for every home and small business in Great Britain to have smart meters and set an intention to complete the rollout in 2019. Government recently consulted with suppliers and other industry stakeholders on its proposal for 2024 and 2025, and now has new targets for suppliers to install smart meters in at least 74.5% of homes and nearly 69% of small businesses by the end of 2025. In 2019, the Department estimated the rollout would cost £13.5 billion from 2013 to 2034 and provide £19.5 billion of benefits over the same period (both in 2011 prices). The rollout of smart meters is mostly funded by suppliers, which pass on some or all their costs to energy consumers.

Based on a report by the National Audit Office, the Committee took evidence on 23 June 2023 from the Department for Energy Security and Net Zero. The Committee published its report on 20 October 2023. This is the government's response to the Committee's report.

Relevant reports

- NAO report: [Update on the rollout of smart meters](#) Session 2022-23 (HC 1374)
- PAC report: [Update on the rollout of smart meters](#) Session 2022-23 (HC 1332)

Government response to the Committee

1. PAC conclusion: Progress rolling out smart meters is too slow and the Department has not done enough to ensure consumers are convinced of their benefits.

1. PAC recommendation: The Department should work with Smart Energy GB to review its public engagement strategy to ensure it drives demand for the rest of the Programme, including by clearly setting out how smart meters can benefit consumers.

1.1 The government agrees with the Committee's recommendation.

Recommendation implemented

1.2 The Department for Energy Security and Net Zero (DESNZ or the department) has set Smart Energy GB clear statutory objectives to build consumer demand and acceptance for smart metering and encourage behaviour change. As an Observer to Smart Energy GB's board, the department works closely with Smart Energy GB, who continuously evolve their campaign strategy in response to findings from their extensive consumer research (as well as the evolving context of the energy market) so that messaging is tailored to different consumer

segmentations. Smart Energy GB work collaboratively with energy suppliers and other stakeholders to help consumers understand the benefits of smart meters and have a specific focus on supporting consumers in vulnerable circumstances.

1.3 Smart Energy GB operate a test and learn approach, so campaigns continually improve. Their campaigns are multi-channel and use a bespoke segmentation model, alongside sophisticated market insights, to target impactful messaging in a cost-effective way. Industry-verified statistical analysis shows that more than 50% of smart meter installations are attributable to Smart Energy GB's activities. This evidence provides assurance that the existing arrangements to evolving and delivering Smart Energy GB's public engagement strategy continue to effectively drive demand for smart meters.

1.4 Alongside national and local campaigning from Smart Energy GB, the department expects energy suppliers to invest in and continually evolve their approaches to converting consumer demand into successful installations. Important to this will be their development of innovative incentives to encourage take-up, including by creating attractive new smart-meter-enabled products and services.

2. PAC conclusion: We are concerned that smart meters are not achieving the consumer benefits they are supposed to and are benefitting certain, often wealthier, consumers more than others.

2. PAC recommendation: The Department should:

- **update its evidence base on the benefits consumers are actually receiving; and**
- **carry out further assessment of how to maximise the benefits of the smart meter network for all consumers, particularly those groups currently less likely to have them to encourage them to apply for one.**

2.1 The government agrees with the Committee's recommendation.

Target implementation date: February 2025

2.2 The department has an ongoing programme of benefits data collection, monitoring, and evaluation which includes recent published evidence on energy savings and consumer benefits. Further substantive evaluation research to complement this is currently in development.

2.3 An independent evaluation of evidence on energy savings for households resulting from smart meters carried out by the Department's Behavioural Insights Team was published in Summer 2023. This identified savings of 3.4% for electricity consumption and 3.0% for gas, in line with the programme's assumptions of 3.0% and 2.2% for credit consumers. Wider consumer benefits were explored in recent published evaluation which focussed on consumers who may experience barriers in the energy market (e.g., those on lower incomes). A range of additional benefits were identified, such as the ability to top up and access balance information remotely offered by smart pre-payment meters.

2.4 This evidence was collected as part of an ongoing programme of data collection and monitoring capturing benefits across the roll-out, including energy consumption reductions, credit and pre-payment consumer experience, demand side response and flexibility and savings accruing to industry.

2.5 To supplement the department's existing evidence base, DESNZ is in the process of designing a new phase of programme wide evaluation which will capture evidence on existing benefits in addition to potential further benefits resulting from innovation enabled by smart metering. Work to provide additional sources of evidence on energy savings is also underway,

including testing the potential of the Department's National Energy Efficiency Data framework (NEED) to provide estimates of impacts.

3. PAC conclusion: The Department has limited understanding of why smart meter coverage is lower in some areas — particularly London, rural and remote areas — compared to others.

3. PAC recommendation: The Department should set out in its Treasury Minute response how it will:

a) increase its understanding of the reasons for variation in geographic coverage, and what it is doing to increase smart meter uptake in those areas that are lagging behind;

b) set out how those households who are unable to install smart meters will be supported.

3.1 The government agrees with the Committee's recommendation.

Recommendation implemented

3.2 The department proactively identified geographic distribution of the rollout as an area for further monitoring; collected and published data alongside the official statistics produced ahead of the original NAO report. This provided greater insight into areas where additional focus may be beneficial. The department will continue to share updated information on geographic progress annually through its official statistics publication covering meters installed and operating at the end of Quarter 1(end of March) of each year. The next publication is expected in May 2024.

3.3 The department has instigated local activities across domestic and non-domestic smart metering rollout, including working with suppliers and local authorities to improve the end-to-end appointment and installation process in local areas. This includes increasing our understanding and tackling of geographically-specific challenges and opportunities – including ensuring sufficient local installation capacity, solutions to parking constraints in local areas etc.

3.4 The deployment of dual band communications hubs and Alternative Home Area Network equipment addresses communications issues between smart metering equipment within premises and following successful trials this summer are now being rolled out at scale. Other technologies currently in development (for example, solutions that use consumer broadband) will improve effective coverage to premises and continue to increase the availability of smart meters to households and small businesses beyond the networks current 99.3% coverage. In addition, variant meters (for example those with ability to switch loads or support three phase supply) are being deployed to premises that require them. Industry is also working on solutions for installing smart meters where there may be insufficient space (for example, crowded meter rooms and cupboards).

4. PAC conclusion: Ofgem risks neglecting the importance of consumer engagement and behaviour change by focusing on penalising suppliers for missing targets.

4. PAC recommendation: Ofgem should consider how its approach to regulating suppliers, on both the rollout and in relation to net zero more widely, takes account of the need for suppliers to engage their customers to promote behaviour change.

4.1 The government agrees with the Committee's recommendation.

Recommendation implemented

4.2 For instances of possible non-compliance with targets, the Office of Gas and Electricity Markets (Ofgem) will gather information from a variety of sources, some of which is provided directly and some of which is requested via informal and formal processes in line with its Enforcement Guidelines. This includes consideration of consumer detriment, the priority of the issue and, in line with Ofgem's new duties, the impact on Net Zero obligations before proceeding. Ofgem intends to continue this considered approach into the future and always look for ways to make this process more comprehensive and robust.

4.3 The department considers that energy suppliers need to engage their customers effectively to convert demand for smart metering efficiently into successfully completed installations. They should be continually adjusting and trialling approaches in response to evolving consumer attitudes, as well as events and emerging opportunities. Those energy suppliers that are doing this more effectively are performing better against their minimum installation targets. In addition, when setting minimum annual installation targets, the department took account of levels of consumer demand over time as smart meter penetration increases. Therefore, a lack of progress in this area can reasonably be taken into account by Ofgem when considering enforcement against energy supplier performance.

5. PAC conclusion: Too many smart meters are not fully functioning and millions more will be impacted when the 2G and 3G mobile communication networks close.

5a. PAC recommendation: The Department and Ofgem should set out:

- ***what they will do to ensure suppliers assign more importance than at present to replacing those smart meters (and their in-home displays) not functioning properly;***

5.1 The government agrees with the Committee's recommendation.

Target implementation date: April 2024

5.2 The department agrees that energy suppliers should have the right resources and analytical insights in place to both monitor and maintain the 'health' of their metering estate. To provide support to this activity, the department has developed and continues to revise good practice, and tracks energy supplier performance. The department's ongoing work to drive down the number of non-operating meters has shown that those suppliers that have the right resources in place can do this effectively and successfully, with non-operating meter numbers reducing for the last 12 months.

5.3 Through licence conditions, the government requires energy suppliers to take all reasonable steps to operate smart meters in smart mode. Ofgem is responsible for regulating energy suppliers against its licence conditions requirements and in its [April 2023 Open Letter](#), Ofgem was clear that it expects energy suppliers to be proactive in identifying and remedying non-operational smart meters and to have systems and processes in place to facilitate this.

5.4 Energy suppliers are required to maintain In Home Displays (IHD) within the first twelve months following installation and fix or replace any device which is found to be faulty. Working with industry, the department has developed and is working to seek agreement to voluntary good practice principles towards IHD provision to ensure a more consistent and positive experience beyond this twelve-month period and has not ruled out further regulation if necessary.

5b. PAC recommendation: The Department and Ofgem should set out:

- ***a timetable for replacing the communication hub element of smart meters that will lose functionality when the 2G and 3G mobile networks are switched off;***

5.5 The government agrees with the Committee's recommendation.

Target implementation date: January 2026

5.6 Suppliers have an obligation (Standard Licence Condition 49.4 in electricity Licence and Gas equivalent) to ensure that they take pre-emptive steps to prevent loss of connection in the event of, for example, the 2G/3G switch off. There is a clear backstop in place for this activity by the end of 2033 as a result of the 2021 announcement by the Mobile Network Operators in the UK that they do not intend to offer 2G and 3G mobile networks past this point.

5.7 Energy suppliers therefore have a clear responsibility to protect their consumers and act to prevent a loss of smart services. Energy suppliers would also argue that this is aligned to their own commercial interests, not least in avoiding increased customer contacts and the lower cost to serve which a smart metering network enables, as well as supporting business offerings such as time of use tariffs.

5.8 The government is already undertaking steps to facilitate and support suppliers in developing plans to execute the replacement programme in a cost efficient and timely way, including:

- orchestrating communication hub financing where a 4G asset replacement only is required;
- collating and sharing with industry regular information on the maturity of suppliers evolving plans for 4G deployment including on field force and consumer engagement; and
- working with the Data Communications Company (DCC) on supporting timely availability of quality 4G communication hubs.

By 2026, this activity will culminate in suppliers detailed plans on how they will meet the 2033 backstop.

5c. PAC recommendation: The Department and Ofgem should set out:

- ***measures to ensure that suppliers use future-proofed technology – for example, by excluding 2G or 3G connectivity – in all new smart meter installations.***

5.9 The government disagrees with the Committee's recommendation.

5.10 Excluding 2G or 3G connectivity from new installations would mean pausing the rollout until 4G communications hubs are ready for deployment at scale. This would drive up the costs of the rollout, reduce benefits and prevent access to services and tariffs that help households and small businesses save money. Industry is actively developing 4G communications hub technology so it can be tested and deployed at the earliest opportunity.

6. PAC conclusion: The smart meters programme has been going for more than a decade and it is not clear how the Department takes important decisions relating to its future, including how it will decide when to bring the Programme to a close.

6. PAC recommendation: The Department should:

- ***report programme costs and benefits to Parliament on an annual basis, alongside progress of critical success factors; and***
- ***set out how it is using this information to inform decisions on the future of the rollout, including when it will bring it to a close.***

6.1 The government agrees with the Committee's recommendation.

Target implementation date: Summer 2024

6.2 The National Audit Office (NAO) identified the comprehensive approach in place to monitor and act on any changes to costs and benefits of the smart metering rollout. The programme's 2019 cost benefit analysis is a comprehensive assessment of the costs and benefits associated with the rollout of smart metering across GB. The department agrees with the recommendation to share this cost and benefit information with Parliament on an annual basis to provide additional visibility of progress in critical cost and benefit areas for the rollout.

6.3 All key costs and benefits are scrutinised regularly and used to inform the department's annual business planning, as well as planning for the enduring operating state of the programme. The Department has determined that it will be able to bring the programme to a close when the major risks have been managed, critical programme activities have transferred to their enduring operating state, and DESNZ is confident that the benefits will be successfully delivered. The plans for this transition will be shared with the Committee when they have matured, as previously agreed.