House of Commons

Committee of Public Accounts

Update on the rollout of smart meters

Seventy-Second Report of Session 2022–23

HC 1332

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The Committee of Public Accounts

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Summary

The Department for Energy Security and Net Zero (the Department) has missed its targets to roll out smart meters to homes and small businesses in Great Britain. Having originally planned to complete the rollout by 2019, as at March 2023, only 57% of meters (approximately 32.4 million out of 57.1 million) were smart in Great Britain. Furthermore, some 9% (around three million) of these were not functioning properly, while a fifth more (an estimated seven million) will lose functionality when the 2G and 3G mobile communications networks are closed if they do not receive costly hardware upgrades (the cost of which will ultimately be borne by the billpayers).

The Department has repeatedly pushed back its targets and timeframes and is now targeting 74.5% of homes and nearly 69% of small businesses to have a smart meter by the end of 2025. In 2022, the first year of a new regulatory framework intended to encourage suppliers to invest more in the rollout, only one large energy supplier hit both its gas and electricity smart meter installation targets.

There are large differences in the uptake of smart meters across geographic areas, and between demographic groups. Installation rates are lower in London, plus remote and rural areas, often—but not always—for reasons to do with the limitations of communications technology to bridge the distance between the central network infrastructure and individual smart meters, or between individual smart meters and their in-home displays. Smart Energy GB, funded by energy suppliers to engage consumers and drive smart meter uptake, has a statutory obligation to ensure vulnerable consumers are not 'left behind'. However, its recent survey data shows lower uptake among the young, female, those on low incomes, and private renters; whereas older, male, those on higher incomes, and homeowners are more likely to have smart meters.

Ofgem, the energy regulator, is applying a traditional regulatory mindset to the rollout, focusing on supplier underperformance. This is potentially to the detriment of understanding and supporting the consumer behaviour change desirable for the success of the smart metering programme, as well as achieving broader objectives such as net zero. The Department has not published updated costs and benefits data since 2019, reducing transparency and limiting accountability to Parliament. Furthermore, it only has a plan for the Programme to 2025—even though its take-up target by then is well short of 100%—and does not know when it might be able to bring it to a close.

Introduction

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.

Conclusions and recommendations

1. **Progress rolling out smart meters is too slow and the Department has not done enough to ensure consumers are convinced of their benefits.** The Government's original target was to effectively complete the rollout by 2019. However, it has adjusted its deadlines three times and reduced its target installation levels for smart meters from "all homes and small businesses" in 2019, to its current target of 74.5% of homes and nearly 69% of small businesses to have smart meters by the end of 2025. At the end of March 2023, more than a decade after the rollout started, only 57% of all electricity and gas meters were smart. The Department told us suppliers are currently installing 80,000 to 85,000 smart meters each week. Although the Department considers that there is demand for smart meters from people that do not yet have one, energy suppliers argue that the remaining consumers with traditional meters are less interested in having a smart meter. Smart meters have also been the subject of much negative media attention, particularly around the forced switching of consumers to smart prepayment mode. While the Department is ultimately responsible for the Programme and Ministers have a role in promoting the benefits of smart meters to consumers, the responsibility for consumer engagement rests primarily with Smart Energy GB (a not-for-profit organisation funded by suppliers).

   Recommendation 1: ***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.***

2. **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.** The Department's most recent estimates of consumer energy savings are based on data from installations that took place between 2015 and 2018 (with consumption data up to 2019). These show energy reductions of 3.3% to 3.6% for electricity and 2.9% to 3.1% for gas. However, the Department needs more up-to-date data to be confident that smart meters are saving consumers money on their energy bills, as it anticipated. If consumers are older, male, on high incomes, or homeowners then they are more likely to have smart meters. Wealthier people are also more likely than less wealthy people to be able to purchase new replacement appliances (such as washing machines) if their smart meter suggests relatively high running costs of older appliances they may own. Previously, there special smart meter tariffs were available that offered lower prices, for example for off-peak consumption —owever, these have been withdrawn due to current conditions in the domestic energy market, thereby removing an incentive for smart meter installation.

   Recommendation 2: ***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.***

3. **The Department has limited understanding of why smart meter coverage is lower in some areas—particularly London, rural and remote areas—compared to others.** The extent of smart meter installation varies across Great Britain, from 5% in the Isles of Scilly to 69% in Chesterfield as at March 2023. Installation rates in London are 43%, some way below the 57% being achieved across Great Britain. The Department thinks this is due to the challenges of installations in blocks of flats (where it is more difficult to place meters and in-home displays in sufficient proximity to each other), and also because installers cost more and are less available. Remote areas such as the Highlands and Islands of Scotland also have lower coverage, as do some rural areas such as the Cotswolds. The Department says that the Data and Communications Company, which operates the central communications and data platform for smart meters, is looking into options for the 0.75% of homes that sit outside its 'wide area network' coverage (known as "not-spots") for smart metering. The Department referred to the 'few hundred thousand' homes in these areas as located in 'not-spots'. However, we also note that some suburban areas such as the constituency of Richmond Park can have low coverage but have neither the characteristics of inner London nor rural or remote areas.

   Recommendation 3: ***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.

4. **Ofgem risks neglecting the importance of consumer engagement and behaviour change by focusing on penalising suppliers for missing targets.** Energy suppliers have binding targets to install smart meters, which should be enforced by Ofgem, the energy regulator. However, energy consumers are not required to accept an offer of having smart meters installed and only one large supplier hit both its 2022 gas and electricity smart meter installation targets. Ofgem is in discussions with suppliers that did not meet their targets, and has previously used its enforcement powers to require an energy supplier to contribute more than £1m to a "redress fund". It told us it is now considering more severe financial penalties than this. The Department and Ofgem are also in the process of reforming the energy retail market, to increase its resilience whilst enabling innovation that helps support achieving net zero. This may require Ofgem to adapt its regulatory approach, moving beyond merely considering performance against targets, to take account of suppliers' investment in the innovation and consumer engagement that encourages consumer behaviour change in line with net zero.

   Recommendation 4: ***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.***

5. **Too many smart meters are not fully functioning and millions more will be impacted when the 2G and 3G mobile communication networks close.** In March 2023, around 3 million (9%) of smart meters were not working properly in total. Of these, 1.6 million are "transitory" issues according to the Department, but the remainder were faulty, and either not sending energy use information to suppliers or not displaying usage to consumers, or both. Suppliers are supposed to take "all reasonable steps" to replace smart meters that are not working properly, but the government's rollout targets mean suppliers have much clearer incentives to prioritise the installation of new meters rather than replacing broken ones. Consumers are only guaranteed for a year the benefits arising from being able to monitor their energy consumption in real-time - because if their display breaks after that, the supplier currently has no obligation to replace it. An estimated seven million communications hubs (part of the electricity smart meters) will also need to be replaced, because they will lose functionality when the 2G and 3G mobile communications networks are closed. The costs of these upgrades could be very significant, and, like other costs of the rollout, are ultimately passed on to billpayers.

   Recommendation 5: ***The Department and Ofgem should set out:***

   a) 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;

   b) 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;

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

6. **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.** The government first announced its intention to mandate suppliers to install smart meters in 2008, and energy suppliers have been rolling out smart meters since 2012. The Programme is one of the largest across government by whole-life costs; however, despite this, the Department has not published updated costs and benefits information since 2019. The Department estimates that both costs and benefits have increased since then, and acknowledges the argument for reporting more of this data to Parliament, while noting that it would want ministerial consent before agreeing to do so. Furthermore, the Department recognises that the smart meters rollout needs at some point to stop being a change programme and become business-as-usual, but considers that there remains significant demand amongst consumers that do not yet have a smart meter, which can be met through its ambitions out to 2025. However, it only has a plan for the Programme to 2025, and does not know when it will be able to bring the Programme to a close.

Recommendation 6: ***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.***

1 Progress of the Smart Meter Implementation Programme

1. On the basis of a Report by the Comptroller and Auditor General, we took evidence from the Department for Energy Security & Net Zero (the Department) and Ofgem on progress with the Smart Metering Implementation Programme (the Programme).[1] We also took evidence from Energy UK, a senior analyst at the Climate Change Committee and Citizens Advice.

2. Smart meters are a modern type of gas and electricity meter. Unlike traditional meters which register a running total of energy used, smart meters can record half-hourly price and consumption data, and provide automatic meter readings to energy suppliers. When linked to in-home displays, smart meters also provide households with information on their energy usage and costs which enables consumers to reduce these by paying more attention to the energy they use. The costs of supplying energy are also reduced as, for example, suppliers have less need for manual meter readings. Smart meters could also lead to wider benefits, by enabling a system that uses information and communications technology to control electricity generation and use in near real-time, to provide a more reliable and cost-effective electricity system. They could also help towards achieving net zero, enabling suppliers to charge consumers different prices at different times, for example lower costs when there is more green energy generation from wind and solar.[2]

3. The Department, and its predecessor departments, have led the Smart Metering Implementation Programme (the Programme) since 2008. In 2011, government set out a vision for every home and small business in Great Britain to have smart meters installed and set an intention to effectively complete the rollout in 2019.[3] By value, it is one of the largest programmes in government, and is included in the Government Major Projects Portfolio of the largest and highest-profile projects across government.[4] 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 of their costs to energy consumers.[5] Government recently consulted with suppliers and other industry stakeholders on its proposal for 2024 and 2025, and now has 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.[6]

4. The Department takes decisions that determine the high-level design of the smart metering system, and the way smart meters are rolled out. Numerous private companies are responsible for implementing and operating parts of this system, including suppliers, meter manufacturers and communications network providers. These organisations are directly or indirectly incentivised through a regulatory framework which is enforced by the energy market regulator, Ofgem. Once the Department considers the rollout is complete, it will pass responsibility for smart metering to Ofgem and the Smart Energy Code governance.[7]

1 C&AG's Report, Update on the rollout of smart meters, Session 2022–23, HC 1374, 14 June 2023
2 C&AG's Report, paras 1–2
3 C&AG's Report, para 3 and footnote 3
4 C&AG's Report, para 5
5 C&AG's Report, para 7
6 Department for Energy Security and Net Zero, Smart Meter Targets Framework: Government response to a consultation on minimum installation requirements for Year 3 (2024) and Year 4 (2025), July 2023
7 C&AG's Report, para 6

Progress in rolling out smart meters

5. Government originally planned to complete its programme to roll out smart meters by 2019. However, it has since adjusted its deadlines three times and reduced its target installation levels for smart meters. The Department originally planned for suppliers to take 'all reasonable steps' to install smart meters in 'all homes and small businesses' by 2019.[8] However, by the end of March 2023, in England, Scotland and Wales combined, only 57% of all electricity and gas meters were smart.[9] Effective from 2022, the Department has put a regulatory framework in place that sets specific targets for suppliers to install gas and electricity smart meters, in each of the four years to 2025.[10] Shortly after our evidence session, the Department published its response to a consultation with suppliers and other industry stakeholders on its proposals for installation targets during the second half of the regulatory framework, covering 2024 and 2025.[11] It now has targets for suppliers to install smart meters in at least 74.5% of the homes they supply with energy, and in nearly 69% of small businesses by 2025 (the consultation proposals had been 80% and 73% respectively).[12] In June 2023, the Department told us suppliers are currently installing about 80,000 to 85,000 smart meters each week.[13]

6. The Department considers that there is demand for smart meters from people that do not yet have one.[14] However, installation rates have not recovered to pre-COVID-19 levels and there is no evidence yet that the new regulatory framework that relies on binding targets for suppliers is having the desired impact.[15] Energy suppliers say that many people are not motivated to ask them to install smart meters, and that they are struggling to employ enough engineers to install them.[16] We heard examples of why energy consumers may be put off from having a smart meter installed, and there are many reports of domestic consumers having bad experiences with smart meters; for example bad practice last winter around forced switching of consumers onto smart prepayment meters.[17] On hearing about these experiences, consumers without a smart meter can be put off having one installed.[18] Unite told us that at a time when pay rises are falling behind inflation and more people are falling into fuel poverty the knowledge that smart meters can be swapped over to smart prepayment has deterred many from having one installed.[19] Energy suppliers are under pressure to contact consumers to support meeting smart meter targets imposed on them by the Department. In turn they put pressure on consumers who can feel threatened by contacts and correspondence from suppliers into having to accept a smart meter being installed. The Department expressed concern that consumers have received communications from suppliers that could be perceived in this way. However, it also said it was the job of energy suppliers to get the tone of correspondence right.[20]

8 C&AG's Report, paras 3, 12, Figures 1 and 4
9 C&AG's Report, Key facts, para 11, Figure 1
10 C&AG's Report, paras 4 and 1.5, Figure 4
11 Q 73; C&AG's Report, para 4
12 Department for Energy Security and Net Zero, Smart Meter Targets Framework: Government response to a consultation on minimum installation requirements for Year 3 (2024) and Year 4 (2025), July 2023; C&AG's Report, para 4
13 Q 75
14 Qq 78, 106
15 C&AG's Report, para 1.7, Figure 6
16 Qq 14, 19, 26; C&AG's Report, para 22
17 Qq 5, 18
18 Qq 78–79
19 URM0003
20 Q 78

7. The Department told us that Ministers have a role in promoting the benefits of smart meters and the Programme to consumers.[21] The responsibility for consumer engagement primarily rests with Smart Energy GB, a company funded by mandatory contributions from energy suppliers.[22] However, the Department told us it plays a role in the policy around convincing groups of people to have a smart meter installed, to help ensure installations progress across all energy consumer groups.[23] EDF the energy company told us that there are clear opportunities for government departments to work more closely together to support the programme and for the policy environment around smart meters to be more favourable. These include, for example, requiring smart meters to be installed in new build homes, or in social housing, and incentivising smart meters as a credit for a property's Energy Performance Certificate.[24]

Consumer benefits and their distribution among different groups

8. The Department has commissioned research to identify the energy consumption savings made by consumers with functioning smart meters. The estimates show energy reductions of 3.3% to 3.6% for electricity and 2.9% to 3.1% for gas. These findings are based on a sample of 500,000 consumers who had a first-generation smart meter installed between 2015 and 2018 (with consumption data up to 2019).[25]

9. These energy reductions show a slight improvement on earlier estimates included in the Department's 2019 cost benefit analysis.[26] The Department told us it considers the expected percentage reduction in energy use is being maintained and that in a 'much higher energy price world', the actual monetary benefits will have significantly increased.[27] However, the Department needs more up-to-date data to be confident that smart meters are saving consumers money on their energy bills, in line with its expectations.[28] It does not plan a full evaluation, including assessment of the impacts on consumers, until the completion of the rollout.[29]

10. The Department told us that real-time data offered by a smart meter means that all types of consumer can benefit from having a smart meter installed, and that its early learning project identified that people with smart meters who were fuel-poor were benefiting similarly to people who were not.[30] Smart Energy GB has a duty to ensure consumers in vulnerable circumstances are not 'left behind' and conducts surveys to identify smart meter uptake by demographic characteristics.[31] Its recent data show consumers that are older, on higher incomes, male, and homeowners are more likely to have smart meters. Consumers that are young, female, on low salaries, and private renters are less likely to have smart meters.[32] Wealthier consumers are also more likely than others to be able to replace inefficient appliances (such as washing machines), for example if their smart meter

21 Q 65
22 C&AG's Report, Figure 3
23 Q 65
24 URM0005
25 Q 98; C&AG's Report, para 2.8
26 C&AG's Report, para 2.10
27 Q 88
28 C&AG's Report, para 17
29 C&AG's Report, para 2.11
30 Qq 119–120
31 C&AG's Report, para 1.13, Figure 8
32 C&AG's Report, Figure 8

suggests an older washing machine has relatively high running costs.[33] In correspondence to the Committee after the session, Smart Energy GB told us that it has a specific team focused on vulnerable consumers who also lead on working with a range of local and national partners who are trusted voices for vulnerable customer segments, including Carers UK.[34]

Smart meter coverage by geography

11. Smart meter coverage across Great Britain in 2023 varies by local authority from 5% in the Isles of Scilly to 69% in Chesterfield. Installation rates in London are only 43%, which the Department considered is due to the challenges of installing smart meters in a densely populated city, particularly in inner-London. The Department told us that technical issues have posed a problem when installing smart meters in blocks of flats (where it is more difficult to place meters and in-home displays in sufficient proximity to each other).[35] The Department said progress has been made in resolving this issue and it was piloting a solution.[36] However, the Department told us it was piloting this technology in only tens of properties (rather than tens of blocks of flats). It nevertheless expects that number to increase over time, subject to the outcome of the pilot, and particularly from the end of July.[37] The Department also said that supplier recruitment of engineers in London is more difficult as installers cost more and are less available.[38] Remote areas such as the Highlands and Islands of Scotland also have lower coverage, as do some rural areas such as the Cotswolds.[39]

12. The Committee noted that some suburban areas, including the constituency of Richmond Park situated to the south-west of London, can have low coverage but have neither the characteristics of inner London nor rural or remote areas. The Department acknowledged that at 40% installation coverage, Richmond Park was below average (although it did not offer an explanation as to why this was the case).[40] The Department said that in London more generally there is a much higher proportion of people in privately rented housing than in the rest of Great Britain. Tenants can be hesitant about having a smart meter installed because they are not sure they are allowed to. The Department's understanding is that landlords are in support of having smart meters installed because accurate timely bills are less likely to lead to future problems.[41]

13. The Department told us that the Data and Communications Company, the central communications and data platform that provides the network ecosystem for smart meters, is looking into options for 'not-spots' which the Department considers applies to only 0.75% of homes.[42] These 'few hundred thousand homes' sit outside the 'wide area network' of coverage across Great Britain for smart meters.[43] The Department said that one solution the Data and Communications Company is considering involves piggybacking on a

33 Qq 113, 120
34 Correspondence submitted by CEO, Smart Energy GB dated 30 June 2023
35 Q 85; C&AG's Report, para 1.8, Figure 7
36 Qq 58–59, 85
37 Q 59; C&AG's Report, para 1.20
38 Qq 87–88; C&AG's Report, para 1.8
39 Qq 57, 85; C&AG's Report, para 1.8, Figure 7
40 Q 86
41 Q 87
42 Qq 57, 110
43 Q 57

consumer's home broadband service. However, the Department advised that this solution will take some time to develop, and is one of a number of solutions being considered.[44]

Regulatory approach

14. Energy suppliers have binding targets to install smart meters, enforced by Ofgem, the energy regulator. However, energy consumers are not required to accept an offer of having smart meters installed. The Department told us that it chose a voluntary, demand-led approach to the smart meters rollout because it wanted to engage consumers in the way they use energy. It said that in countries that had chosen either a mandatory or semi-mandatory approach it had led to resistance and a lack of engagement with consumers.[45] However, in 2022, only one large supplier hit both its gas and electricity smart meters installation targets. This large supplier had a less than one per cent share of total actual installations by all large suppliers.[46] Energy UK told us that one supplier considered that in order to meet its targets it would need to convert all consumers who had previously said no to a smart meter.[47]

15. Ofgem believes that the missed 2022 targets were nevertheless achievable, even for large suppliers with 'lots of incumbent customers'.[48] It considers the role it can play in suppliers meeting their installation targets is to provide a clear signal and an incentive to suppliers to invest appropriately and take meeting their targets seriously.[49] It is now in discussions with the majority of those suppliers that did not meet their targets, and has previously used its enforcement powers for smart meters to require one energy supplier, OVO Energy, to contribute more than £1 million to a 'redress fund'.[50] It is considering more severe financial penalties, but does not want enforcement action to force or lead to supplier failures.[51]

16. The Department and Ofgem are also in the process of introducing reforms to the energy retail market, in part to increase resilience and enable innovation. This reform comes at a time when new and innovative technologies are being developed, including those that contribute to or encourage consumer behaviour change in line with net zero.[52] The Department highlighted that some innovative energy suppliers were able to offer tariffs, to consumers with smart meters, that could save up to two-thirds of the costs of charging their electric vehicles if they do so at certain times of day when the energy price is cheaper.[53] Ofgem also told us about how, in winter 2022–23, the National Grid ran a demand response exercise with some smart meter consumers, by paying them to turn down their demand temporarily. In future this could be used to help manage demand at peak times.[54] The Climate Change Committee analyst told us that smart meters broadly sit on the critical path to net zero and while delays in the rollout do not directly slow things down, the slower than expected progress 'definitely does not make things easier'. It sees

44 Q 110
45 Q 76
46 C&AG's Report, para 1.15, Figure 9
47 Q 17
48 Q 99
49 Q 69
50 Q 73; C&AG's Report, para 1.17
51 Qq 3, 99
52 Q 112; C&AG's Report, para 2.14; Ofgem, Ofgem launches new proposals to strengthen energy market and protect consumers, 25 November 2022
53 Qq 112–113
54 Q 97

smart meters as important in bringing consumers along—paving the way to educating consumers about their energy use, how energy is wasted and changes that are coming, including low carbon heating.[55]

55 Q 19

2 Replacing non-functioning smart meters, and the future of the Programme

Replacing non-functioning smart meters

17. As at March 2023, 3 million smart meters were not working properly; which means that these meters were either not sending energy use information to suppliers or not displaying this information to consumers, or both. This equated to 9% of the 32.4 million smart meters installed.[56] Keeping smart meters working as intended is generally more complex than traditional meters because, for example, they require software updates and have three different and separate components at minimum (compared with just one traditional meter).[57]

18. The Department identified three main reasons why a smart meter might not be functioning. In June 2023, it told us that approximately 1 million of the 3 million non-functioning meters were new installations where the smart meter is not commissioned when installed, which can be intentional, such as in new build premises; or where the commissioning process is attempted but fails, requiring a repeat visit. A further approximately 600,000 smart meters were owned by consumers switching suppliers, and the switching process had not proceeded as it should have, for example if the new supplier did not recognise the customer had a smart meter. The Department considers the smart meters in these first two categories as 'transitory' given the issues can be resolved.[58]

19. According to the Department and Energy UK, the third category included around 1.4 million meters that were working at the point of installation but had since lost communication.[59] This includes first generation meters, known as SMETS1, that needed to be 'enrolled' (in effect, connected) to the central data and communication platform infrastructure to continue functioning when consumers switch suppliers. In June 2023, the Department told us it might not be possible to enrol 500,000 of these SMETS1 meters, in which case they might ultimately need to be replaced.[60] Suppliers' regulatory framework only requires them to take 'all reasonable steps' to replace non-functioning smart meters and doing so does not count towards their binding targets, which only cover new smart meters.[61] Suppliers consider this leads them to prioritise installation of new smart meters over replacing non-functioning ones they have previously installed. The Department disagrees, suggesting the existence of a regulatory requirement for replacing a non-functioning meter means there is no practical incentive for suppliers to prioritise meeting their binding targets to install new smart meters over replacing non-functioning meters.[62] However, Ofgem acknowledges that 'all reasonable steps' (to replace non-functioning meters) is a harder regime to enforce than a binding target to install meters.[63]

56 C&AG's Report, Key facts, para 13
57 C&AG's Report, para 23
58 Q 48
59 Q 48; Correspondence submitted by Head of Future Retail Markets, Energy UK, dated 6 July 2023
60 Q 48
61 Qq 15, 34 and 35
62 C&AG's Report, para 1.16
63 Q 72

Energy UK told us that despite the differentiation between requirements suppliers have processes in place to address metering issues and getting meters working is critical to a positive consumer experience. There are also commercial incentives to want to keep meters working. When smart meters are not working the upfront cost of the meter, in-home display and installation is not being returned in the form of supplier-side benefits.[64]

20. Consumers are only guaranteed to receive the benefits available from being able to monitor their energy usage via an in-home display for a year. After one year, if the device breaks the energy supplier currently has no obligation to replace it.[65] Ofgem said it encourages suppliers very strongly to replace any in-home displays that are not currently working for whatever reason, although the Department accepts that after one year this would be at the discretion of the supplier and the consumer may be charged for a replacement.[66]

21. The Department also estimates that 7 million communications hubs (a modular component of the smart meter set) will need to be replaced in the South and Central regions ahead of 2033, when 2G and 3G communications networks are closed. These will be replaced with an equivalent module which communicates using the 4G network.[67] The Department told us that it considers this replacement exercise will cost 'about' £2 for each household.[68] However, Citizens Advice indicate these costs may be very significant and ultimately borne by consumers or taxpayers.[69]

The future of the Programme

22. The government first announced its intention to mandate suppliers to install smart meters in 2008, and energy suppliers have been rolling out smart meters since 2012.[70] The Programme has therefore been active for more than a decade, and although the Department has produced seven cost-benefit analyses, it has not done so since 2019.[71] The Programme is in the Government Major Projects Portfolio of the largest and highest-profile programmes across government.[72]

23. At our evidence session, the Department could not provide an up-to-date figure for the Programme's costs and benefits. It considers that both costs and benefits will have increased since 2019, given: a) lower installer efficiency and delays during COVID-19 increasing costs generally, together with higher than anticipated labour costs; and b) HM Treasury revisions to carbon prices and the increase in retail energy costs following increasing demand for energy after the pandemic and Russia's invasion of Ukraine.[73] We highlighted that the scale and size of the Programme, and length of time it will run for, meant the Department should be providing more regular information for Parliament to assess its progress. The Department acknowledged our arguments for reporting more data (including cost data) regularly to Parliament, while noting that it would want ministerial consent before agreeing to do so.[74]

64 Correspondence submitted by Head of Future Retail Markets, Energy UK, dated 6 July 2023
65 Q 122
66 Qq 122–123
67 Q 56; C&AG's Report, para 2.20
68 Q 119
69 C&AG's Report, para 2.20
70 C&AG's Report, para 3, Figure 1
71 Qq 89–90
72 C&AG's Report, para 5
73 Qq 19, 88–90; C&AG's Report, paras 15, 2.4
74 Qq 91–92

24. The Department characterises smart meters as a change programme, and recognises that it needs, at some point, to stop being so and become business as usual in the energy retail market.[75] However, it considers that there remains significant unsatisfied demand which its current proposed target framework to 2025 recognises, claiming 35% to 40% of customers surveyed say they are keen to have a smart meter in the next six months.[76] Energy UK told us the survey data findings reflect a consumer's opinion before factoring in any barriers or inconvenience associated with an install such as waiting in or needing to rebook an appointment. This means the survey findings do not reflect these real life deterrents to having a smart meter installed and could overstate real life demand.[77] The Department told us that energy suppliers also want to roll out smart meters, but they want to do so at a slower pace which better accommodates their commercial interests and objectives.[78] The Department feels that by upping the pace of the rollout it can deliver benefits to consumers sooner, particularly as all energy billpayers are already covering its costs.[79]

25. As well as the approach to the rollout there are other significant issues for the Department to consider after 2025, including the re-licensing of the DCC (the central communications and data platform), and reform of the industry code governance. Ofgem has a key role to play in both of these.[80] The Department told us it still aspires to get as close to 100% smart meter coverage as possible, but only has a plan to 2025. It is developing a framework for after 2025 but does not know when it will be in a position to close the programme.[81]

75 Qq 106, 109
76 Qq 64
77 URM0014
78 Q 75
79 Qq 47, 75, 94–95
80 Q 109
81 Qq 106, 108–109

Formal minutes

Monday 16 October 2023

Members present:

Dame Meg Hillier

Sir Geoffrey Clifton-Brown

Mr Mark Francois

Anne Marie Morris

Draft Report (*Update on the rollout of smart meters*), proposed by the Chair, brought up and read.

Ordered, That the draft Report be read a second time, paragraph by paragraph.

Paragraphs 1 to 25 read and agreed to.

Summary agreed to.

Introduction agreed to.

Conclusions and recommendations agreed to.

Resolved, That the Report be the Seventy-second of the Committee to the House.

Ordered, That the Chair make the Report to the House.

Ordered, That embargoed copies of the Report be made available, in accordance with the provisions of Standing Order No. 134.

[Adjourned till Thursday 19 October at 9.30am]

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