



National Audit Office




REPORT

# Update on the rollout of smart meters

Department for Energy Security & Net Zero

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Department for Energy Security & Net Zero

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## Report by the Comptroller and Auditor General

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Commons in accordance with Section 9 of the Act

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**Gareth Davies**  
**Comptroller and Auditor General**  
**National Audit Office**

**6 June 2023**

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## Key facts

**57%**

of all electricity and gas meters were smart (32.4 million out of 57.1 million), as at the end of March 2023

**80%**

government's proposal for the proportion of meters in homes to be smart by the end of 2025

**2019**

government's original target for completing the smart metering rollout, set in 2011

**£13.5 billion** government's 2019 estimate of the cost to energy suppliers of the rollout of smart meters over the period 2013 to 2034 (in 2011 prices). Suppliers pass on some or all of their costs to energy consumers

**£19.5 billion** government's 2019 estimate of the benefits of the smart meter rollout over the period 2013 to 2034. An estimated net benefit of £6 billion is primarily driven by cost savings for suppliers and reduced energy use (and therefore bills) for consumers (all in 2011 prices)

**9% (around three million)** of the 32.4 million installed smart meters were not operating in smart mode as at the end of March 2023 and are effectively indistinguishable from a traditional meter, meaning that they have technical issues and do not send energy use information to suppliers and may not display this to consumers

**£56** indicative annual savings for a typical dual fuel household with a smart meter as at March 2023. This is based on the Department for Energy Security & Net Zero's (DESNZ's) estimated reductions in gas and electricity consumption and assumes the Energy Price Guarantee is in place, which has lowered consumers' energy bills over winter 2022-23

**96.5%<sup>1</sup>** the proportion of homes where DESNZ expects it is now technically possible for smart meters to function

**37%** of 4,655 survey respondents without smart meters, responding to a Smart Energy GB Outlook Tracker survey in November 2022, who would seek or accept a smart meter in the next six months. 41% of respondents to the same survey had concerns about them

### Note

<sup>1</sup> DESNZ expects a technical solution that would allow smart meters to function in more than 99% of homes to be available from July 2023.

# Summary

**1** 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. Smart meters enable consumers to reduce their energy usage as they pay more attention to the energy they use, and reduce the costs of supplying energy due to, for example, less need for manual meter reading.

**2** 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. The government sees smart meters as a critical feature of an efficient, decarbonised power system as they can encourage consumption patterns that are more aligned with an energy generation mix that increasingly draws on intermittent renewable power sources such as wind and solar.

**3** The government first announced its intention to mandate suppliers to install smart meters in 2008. 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 effectively complete the rollout in 2019.<sup>1</sup> At this time it did not set a percentage of homes and small businesses that would need to have a smart meter for it to consider the rollout complete. In 2012 it placed a legal obligation on suppliers, requiring them to take 'all reasonable steps' to install smart meters in all homes and small businesses by 2019. In 2013, the obligation was extended to the end of 2020 and then later extended to the end of 2021 in response to the COVID-19 pandemic when installers were prohibited from visiting consumer premises during the first lockdown (March to May 2020). Restrictions on installation activity varied until April 2021.

<sup>1</sup> In this report we use 'small businesses' to refer to the non-domestic sites that are within the scope of the smart meter mandate (accounting for around 3 million meters at the end of March 2023). This consists of mainly microbusinesses and small and medium-sized enterprises (SMEs), and some public sector sites such as schools and local authority buildings. We also use 'smart meters' to refer to both smart meters and advanced meters, which are used in some small businesses.

**4** In 2022, the government introduced a new four-year regulatory framework with binding targets for suppliers. The government also places other obligations on suppliers, such as to take all reasonable steps to ensure smart meters operate in ‘smart mode’, where they send energy usage information to suppliers and display the information to consumers. Government is consulting with suppliers and other industry stakeholders on its proposal for the regulatory framework for 2024 and 2025. This proposal includes a target for suppliers to install smart meters in at least 80% of the homes they supply with energy, and in 73% of small businesses, by the end of 2025.

**5** The Smart Metering Implementation Programme (the Programme) is one of the largest in government by whole-life cost, equivalent in scale to the recently completed Crossrail railway construction project. The Programme is in the Government Major Projects Portfolio of the largest and highest-profile projects across government. In its 2021-22 annual report, the Infrastructure and Projects Authority, government’s centre of expertise for infrastructure and major projects, reviewed the Programme. It rated it amber, defined as where successful delivery of a programme appears feasible but significant issues already exist, requiring management attention.<sup>2</sup>

**6** The Department for Energy Security & Net Zero (DESNZ) leads and is responsible for the Programme, which is regulated by Ofgem and delivered by suppliers.<sup>3</sup> DESNZ 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 DESNZ considers the rollout is complete, it will pass responsibility for smart metering to Ofgem and the Smart Energy Code governance.<sup>4</sup>

**7** A taxpayer-funded team of 76 full-time equivalent officials works in DESNZ on the Programme and was allocated £10 million in funding for 2022-23. However, unlike most government programmes which are directly funded by HM Treasury, the rollout of smart meters is mostly funded by suppliers. Government estimated in 2019 that the rollout would cost £13.5 billion from 2013 to 2034 and generate benefits, including for consumers and suppliers, of £19.5 billion over the same period (in 2011 prices). Suppliers pass on some or all of their costs and benefits of the rollout to consumers.

<sup>2</sup> Infrastructure and Projects Authority, *Annual Report on Major Projects 2021-22*, July 2022.

<sup>3</sup> On 7 February 2023, the government announced that the Department for Business, Energy & Industrial Strategy (BEIS) would close, and its responsibilities would transfer to new departments, including the Department for Energy Security & Net Zero (DESNZ). References to DESNZ that relate to events prior to this date therefore refer to BEIS or its predecessors.

<sup>4</sup> The Smart Energy Code is a multi-party agreement defining the rights and obligations of energy suppliers, network operators and other parties involved in smart metering in Great Britain.



**8** We last reported on the smart meter rollout in 2018, when around 24% of households had a smart meter.<sup>5</sup> At the time, there were technical challenges with the rollout, including that many first-generation smart meters would lose their smart functionality if the consumer switched to a different supplier. The devices suppliers were deploying could also only connect smart meters to in-home displays in up to 70% of premises.

### **Scope and purpose of this report**

**9** This report assesses the progress of DESNZ and its predecessor department in leading the smart meter rollout since our last report in 2018 and the extent to which some issues we identified in that report have been addressed. We have also assessed DESNZ's approach to tracking and managing the costs and benefits of smart meters and how well it is set up for both the remainder of the rollout and the transition to industry-led governance once the rollout is completed. We have used our findings to make recommendations aimed at supporting DESNZ to maximise the value for money of the remaining rollout, drawing on our experiences of auditing other major government programmes.

### **Key findings**

Progress with the rollout

**10** **Since 2018, DESNZ and its partners have made important progress in ensuring smart meters can function in almost all homes and small businesses and continue to do so if consumers change energy supplier.** Unlike when we reported in 2018, most smart meters no longer lose their smart functionality if a consumer switches to a different supplier. DESNZ also expects it is now technically possible for smart meters to function in 96.5% of homes and small businesses. Some suppliers are piloting new technology which will enable the installation of smart meters in the remaining harder-to-connect sites, such as high-rise flats. Subject to the outcome of the pilot, this technology is due to be rolled out from July 2023. If successful, this would bring the proportion of homes that are technically eligible for smart meters to more than 99% (paragraphs 1.4 and 1.20).

<sup>5</sup> Comptroller and Auditor General, *Rolling out smart meters*, Session 2017–2019, HC 1680, National Audit Office, November 2018.

**11 Suppliers have now installed smart meters in just over half of homes and small businesses.** At the end of March 2023, 57% of all meters were smart (32.4 million out of 57.1 million). Installations are approaching the 60% coverage that DESNZ estimated in 2019 would be needed for electricity networks to begin securing benefits from smart meters, for example through better informed decision-making on network reinforcement and outage detection and management. Survey data show that people aged 18 to 24, people in private rented accommodation, and those who pay their energy bills quarterly are less likely to have smart meters installed. Geographic data indicate that there is lower electricity smart meter coverage in remote areas and London.<sup>6</sup> DESNZ is working with industry, consumer representatives and Ofgem to identify barriers to take-up and is taking action to address these. For example, it has supported a campaign to raise awareness about tenants' rights (paragraphs 1.6, 1.8 to 1.10, 1.13, 2.12 and Figures 1, 5, 7 and 8).

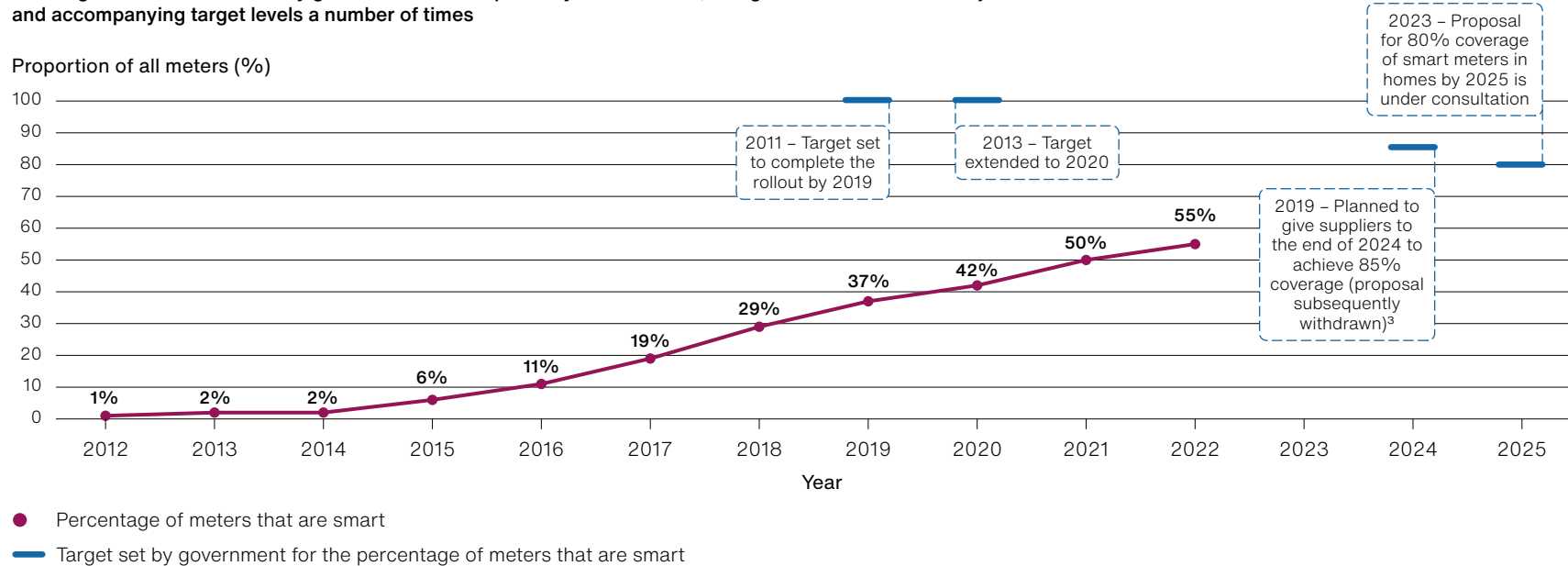
**12 Despite this progress, the smart meter rollout has been slower than government's ambitions.** Only one out of 13 large suppliers achieved both its 2022 electricity and gas smart meter installation targets. In total, these 13 suppliers installed 3.7 million meters against their combined target of nearly five million. Ofgem is currently progressing enforcement discussions with the majority of large suppliers that missed their targets in 2022. Previously, DESNZ has adjusted the expected timescale for the rollout three times and has reduced the targets over time from its initial intention to complete the rollout by 2019 (**Figure 1**). DESNZ believes that these ambitious targets have helped to galvanise supplier activity even if it means targets need adjusting over time. DESNZ has recently consulted on proposals to aim for smart meters in 80% of homes and 73% of small businesses by the end of 2025, both are targets it considers ambitious but realistic (paragraphs 1.14, 1.15, 1.17 and Figure 9).

6 DESNZ does not hold any geographic data on smart gas meters.

**Figure 1**

Government targets and smart meter installations, 2012 to 2025

The targets for the rollout set by government have repeatedly not been met, and government has since adjusted the deadlines and accompanying target levels a number of times



**Notes**

- 1 Values for years 2012 to 2022 are the number of meters up to the year end. We have therefore not included the most recent values for up to the end of March 2023, when there were 57,053,996 meters in total in households and small businesses. Of these, 32,362,992 (57%) were smart meters.
- 2 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 effectively complete the rollout in 2019. In 2012 it placed a legal obligation on suppliers, requiring them to take 'all reasonable steps' to install smart meters in all homes and small businesses by 2019. In 2013, the obligation was extended to 2020. Government did not set a percentage of homes and small businesses that would need to have a smart meter for it to consider the rollout complete. Therefore in the figure we have shown the targets set in 2011 and 2013 as at 100% smart meter coverage.
- 3 In 2019, DESNZ planned to introduce a four-year framework starting in 2021 giving suppliers until the end of 2024 to install smart meters in at least 85% of their consumers' homes and small businesses. DESNZ withdrew this proposal, and deferred introducing a framework by one year, due to the COVID-19 pandemic.
- 4 As of the start of June 2023, the Department for Energy Security & Net Zero (DESNZ) is analysing feedback on a consultation with energy suppliers and other industry stakeholders on the framework for 2024 and 2025. This consultation includes DESNZ's proposal for suppliers to install smart meters in at least 80% of the homes they supply with energy, and 73% in small businesses, by the end of 2025.
- 5 This figure includes the number of installations in homes and small businesses. We use 'small businesses' to refer to the non-domestic sites that are within the scope of the smart meter mandate (accounting for around 3 million meters at the end of March 2023). This consists of mainly microbusinesses and small and medium-sized enterprises (SMEs), and some public sector sites such as schools and local authority buildings. We also use 'smart meters' to refer to both smart meters and advanced meters, which are used in some small businesses.

Source: National Audit Office analysis of the Department for Energy Security & Net Zero's *Smart meters in Great Britain, quarterly update March 2023* and published documentation

**13 Some consumers are experiencing technical issues with their smart meters:**

- **Not operating in smart mode.** Of installed smart meters, DESNZ's data show around three million (9%) as at the end of March 2023 are not operating in smart mode and are effectively indistinguishable from a traditional meter, meaning that they do not send energy use information to suppliers and may not display this to consumers. This is because, for example, the meters are still waiting to be commissioned (such as in new build premises) or due to communication issues. Stakeholders also told us of their concerns that the target framework incentivises suppliers to prioritise installing new smart meters, rather than fixing issues with previously installed smart meters (paragraphs 1.16, 1.23 and Figure 5).
- **Not retaining smart functionality when switching suppliers.** As at 5 May 2023, around four million first-generation smart meters had not yet been migrated on to the central platform service by suppliers to ensure they maintain smart capability even if consumers switch supplier, despite government's requirement that this be complete by the end of 2022. In September 2022, the central platform service provider told DESNZ that technical limitations meant that it may not be possible to migrate more than 500,000 first-generation meters (paragraphs 1.19 and 1.21).
- **Other technical issues.** In August 2022, a survey of 1,580 adults for Smart Energy GB found 37% of respondents with smart meters claimed to have had an issue with their meter at some point following its installation, including no automatic readings, inaccurate bills and the smart meter or in-home display not showing information. DESNZ believes this overstates the true number of consumers who have experienced issues as, for example, the data were collected at a time of increased concerns in the energy market (paragraph 1.24).

**14 Some stakeholders have identified reliability issues with the central platform service.** The central platform service is intended to maintain and improve a secure network for smart meter data and allow secure and restricted access to the data to enable industry to develop future services. Smart DCC Limited (a subsidiary of Capita plc) holds the current central platform service licence. In January 2023, Ofgem published stakeholder consultation responses which identified concerns that the central platform service was too focused on supporting future services rather than ensuring its reliability. In addition, some stakeholders told us that, at times, they found the service was unreliable and meant they were not able to achieve their expected benefits from the system. Despite this, Smart DCC told us its network availability has remained stable averaging more than 99.9% since January 2021 and it only looks at future services under limited circumstances. Smart DCC met most of its service level obligations between October 2022 and March 2023. Smart DCC's licence is due to expire in 2025. Ofgem is responsible for designing and awarding the licence but may need to extend the current licence period as it considers the timeframe for appointing a successor licensee might extend beyond the current licence period (paragraphs 1.22 and 1.24).

Maximising the value for money of the rollout

**15 The costs and benefits of the rollout have been delayed by the slower-than-planned rollout but both are likely to be higher than government's 2019 assessment.** In 2019, DESNZ's cost-benefit analysis estimated the rollout would achieve total benefits of £19.5 billion, with a net benefit of £6 billion (in 2011 prices) between 2013 and 2034. DESNZ estimated the rollout would cost £13.5 billion (in 2011 prices). It is likely that the cost per meter will be more due to average installation costs being higher than expected because of, for example, a shortage of installers. The estimated benefits include £7.6 billion in savings for consumers through reduced energy use and time saved from submitting meter readings and querying bills. The benefits per meter are likely to be greater now given HM Treasury's revisions to carbon values, recent high energy prices and emerging tools and technologies for increasing savings. However, in its 2019 analysis, DESNZ estimated a two-year delay would reduce net benefits in this period by approximately £1 billion (paragraphs 2.3 to 2.5 and Figures 10 and 11).

**16 DESNZ is collaborating well with stakeholders to identify and realise benefits of the rollout.** We identified some good practice in DESNZ's approach to smart meter installation, such as engaging with a range of stakeholders to identify and help remove barriers, working with suppliers to speed up installation rates after the COVID-19 pandemic, and sharing good practice between suppliers. DESNZ has identified a range of other ways that smart meters can be beneficial once installed. For example, people with smart pre-payment meters automatically received bill support payments over winter 2022-23, providing greater convenience and financial security compared with those on traditional pre-payment meters (paragraphs 2.7 and 2.11).

**17 DESNZ needs more up-to-date data to continue to be confident that smart meters are saving consumers money on their energy bills, as it anticipated.**

Based on the assumptions in its 2019 cost-benefit analysis, DESNZ estimates that as of March 2023, a typical household with a smart meter is saving £56 on its annual energy bill through reduced energy use.<sup>7</sup> DESNZ's most recent estimate of consumer energy savings is based on data from installations that took place between 2015 and 2018, which provides evidence relating to those who had smart meters installed earlier in the rollout. These consumers' energy use may not be representative of the total population. Evaluating energy savings requires large samples of data collected over an extended period of time, which limits DESNZ's ability to have up-to-date information from more recent installations. However, more up-to-date evaluation of energy use reductions would enable DESNZ and others, including Smart Energy GB, to further demonstrate the benefits of smart meters to consumers. This could encourage take-up of smart meters and help to understand whether consumers need more support to make the most of the technology (paragraphs 2.8 to 2.10).

<sup>7</sup> In March 2023, the Energy Price Guarantee was in place. This was implemented by government as a temporary measure to protect consumer bills from high wholesale prices over winter 2022-23 and means that bills were temporarily lower than the price cap.

**18 Industry is starting to make use of smart meters to provide benefits to the energy sector and power system overall.** In its 2019 cost-benefit analysis, DESNZ estimated suppliers would save nearly £8.1 billion between 2013 and 2034 (in 2011 prices). Suppliers have reported some cost savings to DESNZ, including from avoided site visits and fewer inbound consumer calls. In addition, DESNZ expected to see network-related benefits worth £370 million. Network operators told us they were beginning to see these benefits but that there is potential for more when a higher proportion of homes and small businesses have smart meters and when they can more reliably access data from the central platform service. Smart meters are also starting to provide benefits for the overall system which could help towards power sector decarbonisation. For example, the Demand Flexibility Service put in place by the National Grid Electricity System Operator (ESO) over winter 2022-23 enabled consumers to receive an incentive for shifting their consumption to help reduce peak demand. Flexibility services and time-of-use tariffs are likely to become more widespread after April 2025, when Ofgem expects industry to have commenced migration to new half-hourly settlement arrangements across the retail electricity market (paragraphs 2.3 and 2.11 to 2.13).<sup>8</sup>

**19 Further system benefits are likely to rely on the financial stability of suppliers.** Further development of such offers, including flexibility services and time-of-use tariffs, could depend on suppliers having sufficient capital to invest in new technologies and business models. In 2022 we reported that recent record high wholesale energy prices have resulted in volatility in the energy retail market, with 29 suppliers exiting the market.<sup>9</sup> DESNZ and Ofgem are working on market reform, with the aim of striking a balance between increasing market resilience and enabling innovation, while minimising costs to consumers (paragraph 2.14).

**20 DESNZ recognises it needs to do more to report on the total costs of the rollout.** DESNZ collates information annually from suppliers on the costs of installations and meters, along with the costs of other aspects of the rollout, such as the central platform service. DESNZ uses this to support a senior-level programme board discussion on the overall progress of the rollout and to support policy decisions. However, it does not calculate and report on total costs to date or estimate lifetime costs of the rollout. DESNZ told us its cost information, along with other factors such as commercial incentives for suppliers, gives it assurance that costs of the rollout are under control. But it also recognises that providing Parliament with an annual update on the costs and benefits of the rollout would be beneficial for transparency and accountability (paragraphs 2.17 to 2.19).

<sup>8</sup> Half-hourly settlement will enable industry to make use of the capability of smart meters to send and receive accurate signals about customers' electricity use and costs on a half-hourly basis.

<sup>9</sup> Comptroller and Auditor General, *The energy supplier market*, Session 2022-23, HC 68, National Audit Office, June 2022.

## Future of the rollout

**21 DESNZ has not yet set out its approach to rolling out smart meters after 2025, including how it will assess its costs and benefits information to inform decisions over the future of the rollout.** With more than half of homes now having smart meters DESNZ has an opportunity to strengthen its evidence of whether the benefits it anticipated for consumers and suppliers are being achieved and how these compare with the costs incurred. DESNZ is planning a full evaluation of its approach once the rollout is complete. But having this information earlier, using the latest evidence from the meters installed to date, could help inform future decisions, including about the rollout after the current regulatory approach ends in 2025. In particular, this could consider the point where the Programme can cease because costs incurred would outweigh the additional benefits gained. In addition, DESNZ needs to consider the potential future costs, including the costs of additional home visits to replace communications hubs ahead of the closure of the 2G and 3G networks by 2033 (paragraphs 2.22 and 2.23 and Figure 1).

## **22 Suppliers we spoke to and DESNZ disagree over the best way to achieve the remainder of the rollout:**

- Suppliers told us their 2022 targets were too challenging as the remaining consumers with traditional meters are less interested in getting a smart meter. In the November 2022 Smart Energy GB Outlook Tracker survey, 41% of 4,655 respondents who claimed to not have a smart meter installed had concerns about them. Suppliers also told us that there is a shortage of meter installers. Energy UK, a supplier representative organisation, said its members had noted increasing costs associated with retaining installers, and redeploying them around Great Britain to respond to installation demand. DESNZ's proposal for 80% of homes to have a smart meter by 2025 will require suppliers to increase their installation rates. Suppliers have argued this should be facilitated by a change in rules and regulations, such as mandating that any new homes built have a smart meter installed by default (paragraphs 1.16, 1.25 and 1.26).
- DESNZ and Ofgem believe the fact some suppliers achieved their 2022 targets means missed targets are due to supplier underperformance and that suppliers have a commercial interest to argue for lower targets. In addition, in April 2023 Ofgem told suppliers that they should have the capacity and flexibility of resource to meet their smart meter installation targets. In the November 2022 Smart Energy GB Outlook Tracker survey, 37% of 4,655 respondents who claimed they did not already have a smart meter said they would seek or accept a smart meter in the next six months. DESNZ believes this indicates there is still demand for smart meters and that suppliers need to invest more in the rollout and improve their installation performance before it will consider introducing additional policy levers, but accepts that additional levers may be required at some point (paragraphs 1.17, 1.18 and 1.26).



**23 DESNZ is in the early stages of planning for the transition of leadership to industry and Ofgem, which will include managing issues arising from smart meters' complexities.** Keeping smart meters working as intended is more complex than traditional meters as, for example, they require software updates and have three different and separate components at minimum (compared with just one traditional meter). These complexities may mean some premises are not suitable for smart meters, yet meter manufacturers have largely stopped manufacturing traditional meters and stocks of these are gradually running down. DESNZ has started planning for what role it takes once it considers the rollout is completed, including developing readiness criteria to be met for the transition to a state where more responsibility is passed to Ofgem and industry. These criteria include ensuring the right regulatory and other incentives, controls and measures are in place. It will need to make sure that these and the ongoing complexity challenges are managed to ensure smart meters continue to deliver the intended benefits while being cost-effective (paragraphs 2.21 and 2.23).

## **Conclusion**

**24** Since 2018, DESNZ has overseen important progress in addressing many of the technical challenges that prevented many smart meters working. The smart meters that have been installed are beginning to demonstrate benefits, including potentially helping to achieve power sector decarbonisation. DESNZ has a proposal under consultation to achieve at least 80% household smart meter coverage by 2025, well behind its original target to complete the rollout by 2019.

**25** DESNZ is at a crucial point in the rollout and the decisions it takes now will determine the extent to which it can maximise value for money from the remainder of the Programme. DESNZ should ensure it has robust information on both the total costs and benefits of smart meters to make these decisions from an informed position, particularly on the merits of different approaches to the rollout after 2025, including considering at what point the Programme can end. This would also allow it to provide transparency on the overall costs and benefits of the Programme. While DESNZ and suppliers collaborate in many areas, they disagree on the reasons for the delayed rollout. Both sides need to work constructively together on the future of the rollout, including considering the merits of new incentives and regulations that increase take-up of smart meters.

## **Recommendations**

**26** DESNZ should:

- a** build on the existing programme of monitoring, collecting more information on actual and forecast costs and benefits to:
  - inform decisions on how to maximise value for money over the remainder of the rollout; and
  - report Programme costs and benefits annually to Parliament;
- b** by the end of 2023, determine whether more programme-wide evaluation would help to inform decisions on the remainder of the Programme. This could include further assessment of how to maximise the benefits of the smart meter network for consumers, suppliers and the wider system;
- c** develop plans for the Programme to transition to Ofgem and Smart Energy Code governance and implement these plans when key criteria are met. DESNZ should decide whether the transition criteria should include a threshold of smart meter installations at which the government considers the rollout to be complete and can demonstrate value for money will be maximised;
- d** continue to work collaboratively with suppliers to address the reasons why installation rates have been slower than planned. This should take into account differences between suppliers as well as insights from DESNZ's benchmarking work, and should consider whether to introduce additional measures to encourage or require consumers to take up smart meters; and
- e** continue to draw lessons from the smart meter rollout to inform the development of other policies that rely on consumer engagement and behaviour changes, particularly the decarbonisation of home heating.

**27** Ofgem should:

- f** allocate sufficient time, capacity and capability to the process of renewing the central platform service licence from 2025, to ensure the central platform service is reliable and provides stability for its core service as well as enabling future beneficial services.

**28** DESNZ and Ofgem should:

- g** work constructively with suppliers on upcoming challenges in the rollout, including how to manage some consumers' continued use of traditional meters, and the replacement of communications hubs, ahead of the 2G and 3G switch-off. This work may include introducing regulatory measures and should consider how hub replacements will be financed.